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Economic and Financial Efficiency of Farmers' Produce Organisation: A Case Study of FAPRO in Hosiarpur District of Punjab

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Abstract

The study was conducted in Ghugial village of Hoshiarpur district of Punjab during 2010-11 with an objective to examine the economic and financial efficiency of capital invested in Farms Produce Promotion Society (FAPRO). It was observed that the society earned augmented revenue with the grown in operational cost and the organization has increased rapidly. It played a proactive role in meeting the purpose of the society. Although B-C ratio has increased, current ratio was found moderate. Profit to asset ratio and profit to sales ratio were viable after few years with low capacity utilization. If the shortcomings can be met similar farmers' organization can be imitated in other parts of the country especially for value addition of perishable products.

Keywords: Farm produce organization, economic and financial efficiency

A producers' organization for value addition of agricultural commodities undergoes various activities which involve capital investment in different forms at various stages of the process. Value addition to agricultural commodities needs both fixed and variable capital mainly in the form of plant and machineries, land rent, building, raw materials, labour and power. Use of capital by the organization in the process of value addition needs to be efficient economically and financially so that the organization can earn profit from every unit of the produce and the Production venture becomes financially viable in the long run.

It is imperative to examine the measures relating to economic and financial efficiency so that viability of the organization can be ascertained for policy decisions. In Hosiarpur district of Punjab a Farmers' Produce Organization has been started for value addition of turmeric and honey in the cooperative sector by the farmers with an aim to earn more income and employment by cultivation of turmeric as a substitute crop of rice and wheat and its value addition at FAPRO. There was a government intervention in establishing the plant and the efficiency of the plant is to be examined for its economic viability. The objective of the study is to examine economic and financial efficiency of capital invested in FAPRO.

Producers' organisation plays a decisive role in modernization and commercialization of farming to make it a profitable venture. It encourages integration by combining production, processing, value-addition and marketing of the finished products for increasing the profitability in farming, generating employment and increasing market power through the organization by reducing the margins of the market middlemen. The producers' organizations also encourage the commercialization of agriculture with high-valued crops and adoption of improved technology in production and marketing. Farms Produce Promotion Society (FAPRO) was formed by the collective efforts of the extension officials and farmers with an initial membership of 200 farmers in the year 2001 in Hoshiarpur district of Punjab.

The organization aimed at acting as a catalytic institution for regenerating rural economy, developing the bargaining power of the producers, generating employment, empowering youth, enhancing farm incomes and capacity building of the rural population by generating self-employment opportunities, promoting value-addition and through training programmes. The organization has a special focus to help the marginal and small farmers, who are the most vulnerable section of the farming community. The organization set up the turmeric and honey processing plants in the village Ghugial of district Hoshiarpur with financial support under Rashtriya Sam Vikas Yojana (RSVY). The plants were set up with a capital of 76 lakh being provided by the state government and ₹ 11 lakh being contributed by the member farmers. The FAPRO is involved in processing and marketing of agricultural products such as turmeric powder, honey, gram floor, pulses, pakora, soybean products jaggery. In order to develop occupational skills amongst the farmer members of the organization Punjab Agricultural university conducts various training programmes on bee- keeping, fruit and vegetable preservation, producing soybean products, poly-houses and net-houses for vegetable cultivation, vermi-composting, seed production and entrepreneurship development shakkar and other seasonal products such as groundnut and kinnow. The organization intends to expand the quantity of marketed products by on site sales, sales through sales outlets in the nearby area and participation in the farmers' fairs and exhibitions in the nearby areas. The annual turnover of FARPRO increased from ₹ 13 lakh in 2006-07 to ₹ 1.12 crore in 2009-10, which means an increase of more than 8 times during this period. It is claimed that more than 500 farm families have gained direct or indirect employment as a result of the initiatives of FAPRO. The organization aims at expanding its future operations by increasing the coverage of their current activities and starting some new activities such as packaging of processed products, use of mobile units for marketing of the produce, producing cattle feed, etc.

Database and Methodology

Both primary and secondary data were collected for the study. Collection of primary data pertains to the year 2010-11. Ten villages were selected randomly out of the villages belonging to the member farmers of FAPRO. Out of these ten villages, 140 turmeric cultivators were identified and 40 (1 marginal, 11 small, 17 medium and 11 large farmers) of them were selected for the study proportionately based on the farm size. The data were collected by personal interview using a pre tested structured questionnaire on various parameters required for the study. The secondary data has been collected from the published sources on FAPRO society. The data were analysed by using various statistical tools like percentage, simple average etc. The analysis was confined to value addition of turmeric by FAPRO in Punjab.

Various concepts pertaining to the costs, returns, operational and financial efficiency were examined in this study. The operational costs involved the costs incurred on the raw material purchased, human labour, electricity and fuel, bagging and marketing during the production process expressed in rupees per quintal. The fixed costs involved land rent, salary of permanent workers, depreciation on the implements and machinery and other capital expressed in rupees. The total costs for processing of honey and turmeric considered in the study were calculated as total costs = total operational cost + total fixed costs. Finally, the returns were worked out by multiplying the total quantity produced and the price of the product as gross return = total production × price and the Benefit-Cost ratio for turmeric and honey processing was calculated as B-C ratio = Gross return/ Total cost.

There are many financial ratios which can be used to examine the financial well being of an organization. These ratios are i) quick or liquid ratio, ii absolute ratio. In this study, however, only current ratio was examined. Current ratio may be defined as the relationship between current assets and current liabilities. It is calculated by dividing the total of current assets by total current liabilities. Different profitability ratios like profit to total asset ratio and profit to total sales ratio were examined. The ratio of profit to total assets establishes a relationship between profit and investment of the business. Profit to total asset ratio is calculated by dividing profit by total assets value. Profit to total sale ratio indicates the efficiency of the management in manufacturing, selling, administrative and other activities of the farm. The ratio is overall measure of the farm's profitability and is estimated by dividing profit by sales.

Results and Discussion

The financial analysis of FAPRO has been carried out in this section. The purpose of this analysis is to analyse the financial condition of the producers' organization and identify the strengths and weaknesses in its functioning. The analysis is also expected to throw light on the future course of action that needs to be undertaken by the FAPRO in order to expand its operations and sustain its profitability.

The costs incurred by FAPRO during 2006-07 to 2010-11 are shown in Table 1. The total cost comprised the fixed and variable costs being incurred in the production process. Fixed costs included interest on capital assets, depreciation and administrative expenses. On the other hand, the variable costs comprised the costs of raw materials, packing material, water, power, fuel, wages of labour, cost of advertisement and publicity and transportation costs, etc. While most of the cost components are easy to understand, the selling and distribution costs included cost of advertisement and publicity, sales promotion, freight and cartage, commission on sales, depot expenses, rebate and discount and lastly breakage and spoilage. The administrative costs included cost of printing and stationery, rent, taxes, postage and telephone, licence, salaries and perks to permanent staff.

Table 1 reveals that total cost increased tremendously from ₹ 3.52 lakh during 2006-07 to ₹ 50.69 lakh during 2010-11. The increase in total cost of operations of FAPRO indicates the expansion in its activities over time. Not only the existing activities were expanded but many new activities were added to the purview of FAPRO, especially after 2009-10. Due to this expansion, the cost of raw material increased from ₹ 2.47 lakh to ₹ 43.44 lakh during this period. The administrative costs shot up from ₹ 0.22 lakhs in the year 2006-07 to ₹ 3.25 lakhs in 2010-11. The increase in salary of permanent staff pushed up the administrative expenses to almost double in a period of three years which ultimately reflected in the higher cost of production. A similar trend was observed in case of total revenue of the FAPRO during 2006-07 to 2010-11. The revenue from sales of different commodities increased tremendously from ₹ 2.50 lakh in 2006-07 to ₹ 16.84 lakh in 2008-09 and then finally to ₹ 52.65 lakh in 2010-11 (Table 2). The change in stock remained negative for all the years, while the miscellaneous income remained as a very small fragment of the total revenue. Total revenue reflected almost the same behaviour as of the revenue from sales. The total revenue increased from ₹ 1.31 lakh to ₹ 51.89 lakh during 2006-07 to 2010-11. In order to examine the economic viability of FAPRO, benefit-cost analysis was also carried out and the results are presented in Table 3. The ratio turned out to be less than unity during 2006-07 and 2007-08, while it was unit in 2008-09. It reflects that owing to the huge investments in the initial years and small number of activities with limited volumes, FAPRO incurred losses during 2006-07 and 2007-08. It was able to break-even during 2008-09 and started earning profits during 2009-10 and 2010-11 as revealed by more than unit values of the benefit-cost ration. The FAPRO earned the profits of ₹ 1.20 lakh during 2010-11. The profits are not very high till now and it seems essential to increase the business activities to sustain in the long run.

There are many financial ratios which can be used to examine the financial well-being of an organization. These ratios are: (i) current ratio, (ii) quick or liquid ratio, and (iii) absolute liquid ratio. In this study, however, only current ratio has been used for the analysis. The current ratio may be defined as the relationship between

Table 1: Total cost incurred by FAPRO from 2006-07 to 2010-11

(₹ in Lakhs)

Costs	2006-07	2007-08	2008-09	2009-10	2010-11
Fixed costs					
1. Administrative Expenses	0.22	0.65	1.91	2.34	3.25
2. Interest on capital assets	0.005	—	0.01	0.07	0.03
3. Depreciation	0.02	0.005	0.09	0.15	0.35
Total Fixed Costs	0.245	0.655	2.01	2.56	3.65
Variable Costs					
4. Raw material consumed	2.47	4.06	11.03	40.03	43.44
5. Packing material	0.10	0.20	1.31	2.00	0.69
6. Labour Use	0.37	0.15	1.12	0.65	1.37
7. Selling and Distribution Costs	0.27	0.01	0.24	0.50	0.60
8. Miscellaneous costs	0.07	0.02	0.37	1.13	0.94
Total Variable Costs	3.28	4.44	14.07	44.31	47.04
Total Costs	3.525	5.095	16.08	46.87	50.69

Table 2: Total revenue earned by FAPRO from 2006-07 to 2010-11

(₹ in lakhs)

Particular	2006-07	2007-08	2008-09	2009-10	2010-11
Sales	2.5	4.28	16.84	48.50	52.65
Change in stock	-1.20	-0.57	-0.82	-0.84	-0.77
Miscellaneous income	0.007	—	0.19	—	0.01
Total revenue	1.307	3.71	16.21	47.66	51.89

current assets and current liabilities. It is most widely used to make the analysis of a short-term financial position or liquidity of a firm and is calculated by dividing the total value of current assets by total value of the current liabilities. Current assets include cash and those assets which can be easily converted into cash within a short period of time generally, one year, such as cash in hand, cash at bank, marketable securities, bills receivable, sundry debtors, inventories, work-in-progress, etc. Prepaid expenses are also included in current assets because they represent payments made in advance which are not to be paid in near future. Current liabilities are those obligations which are payable within a short period, generally one year and include outstanding expenses, short-term advances, income-tax payable, dividend payable, etc.

Relatively higher current ratio is an indication of the sound position of an organization due to its ability to pay its current obligations in time as and when they become due. On the other hand, a relatively low current ratio represents bad liquidity position of the organization and its inability to pay its current liabilities in time without facing difficulties.

As a convention, the minimum of 'two to one ratio' is referred to as a banker's rule of thumb or arbitrary standard of liquidity for a firm. A ratio equal or near to the rule of thumb of 2:1, i.e. current assets double the current liabilities, is considered to be satisfactory. The current ratios of FAPRO during 2006-07 to 2010-11 are given in Table 4. The ratio was 0.81 in 2006-07 and then increased to 0.98 in 2007-08. It has increased to above unit value but never reached near the desired value of 2 as discussed above. It means that the current situation of FAPRO to meet its current obligations is not very

Table 3: Benefit and cost incurred by FAPRO from 2006-07 to 2010-11

(₹ in lakhs)

Year	Total revenue	Total cost	Profit	Benefit-cost ratio
2006-07	1.307	3.525	-2.218	0.37
2007-08	3.71	5.095	-1.385	0.72
2008-09	16.21	16.08	0.13	1.00
2009-10	47.66	46.87	0.79	1.01
2010-11	51.89	50.69	1.2	1.02

Table 4: Estimation of current ratio at FAPRO from 2006-07 to 2010-11

(₹ in lakhs)

Year	Value of current assets	Value of current liabilities	Current ratio
2006-07	3.49	4.31	0.81
2007-08	6.45	6.59	0.98
2008-09	7.29	6.89	1.07
2009-10	10.17	9.38	1.08
2010-11	26.95	26.08	1.01

Table 5: Estimation of profit to total assets ratio at FAPRO from 2006-07 to 2010-11

(₹ in lakhs)

Years	Profit	Total assets	Profit to total assets ratio
2006-07	-2.218	2.80	-0.80
2007-08	-1.385	6.48	-0.21
2008-09	0.13	8.08	0.016
2009-10	0.79	11.64	0.06
2010-11	1.2	29.37	0.04

Table 6: Estimation of profit to total sales ratio at FAPRO from 2006-07 to 2010-11

(₹ in lakhs)

Years	Profit	Total sales	Profit to total sales ratio
2006-07	-2.218	2.50	-0.88
2007-08	-1.385	4.28	-0.32
2008-09	0.13	16.84	0.007
2009-10	0.79	48.50	0.016
2010-11	1.2	52.65	0.022

sound and it needs further accumulation of current assets in the long-run.

Profit earning is considered essential for the survival of the business. Different profitability ratios such as profit to total asset ratio and profit to total sales ratio were calculated for this analysis. The ratio of profit to total assets establishes a relationship between profit and investment of the business. This ratio is very useful if the profit is not sufficient; the firm shall not be achieving a satisfactory return on its investment. This ratio also indicates the firm's capacity to face adverse economic conditions such as price competition and low demand, etc.

FAPRO, rather than earning profit suffered losses in the year 2006-07 and 2007-08. The negative profit-assets ratio showed that the performance of organisation worsened with the corresponding increase in the assets indicating its overall inefficiency. Along with the loss, the total assets were on an increase during the study period ranging from ₹ 2.80 lakhs to ₹ 29.37 lakhs. The ratio of -0.80 in the year 2006-07 simply means that the plant sustained a loss of 8 paise per rupee invested. However, it earned a profit of 6 paise per rupee invested in the year 2009-10 (Table 5).

Profit to sales ratio indicates the efficiency of the management in manufacturing, selling, administrative and other activities of the firm. This ratio is overall measure of firm's profitability and is calculated by dividing profit by sales. Table 6 indicates that this ratio of the society was -0.88 in the year 2006-07, which means, that society sustained a loss of ₹ 0.88 per rupee of sale. However, it earned a profit from the year 2008-09 to 2010-11. Since the profits are an index of progress of the firm, but, here the profitability ratio of the society clearly reflected their inadequacy to achieve a satisfactory return on their investments, to bear administrative expenses and to pay interest and loans etc. Low profitability further weakens its ability to discharge its obligations to creditors, employees, customers and finally to the Government for taxpaying capacity.

It was found that out of total turmeric, 54 per cent was sold as turmeric powder and 46 percent were sold as seed. It was also found that value addition and input-output ratio in processing of turmeric was economically viable. The B-C ratio was 1:1.31. The B-C ratio of turmeric seed processing was as high as 1:5.02 indicating a higher profitably venture. B-C ratio in honey processing was economically feasible and was found at 1:1.32 which indicates a greater scope of honey production to meet the current market demand. Capacity utilisation of turmeric and honey processing was 4.67 and 3.50 per cent respectively which were quite low. The cultivation of turmeric and honey was highly remunerative over Rice-Wheat rotation increasing the income and employment of the farmer. FAPRO also added value from other activities utilising unused labour and earned income. Investment costs increased from 3.52 lakhs in 2006-07 to 50.69 lakhs in 2010-11 indicating a healthy trend of business venture of FAPRO. It can decrease the overhead costs to make it more viable and it earned revenue of ₹ 1.30 lakhs to 51.89 lakhs. The profit is not very high at present but it is essential to increase the business activities to sustain in long run. It shows an increasing trend in B-C ratio over year. Ratio estimates conclude that current estimate of FAPRO was moderate and needs further accumulation of current assets in the long run. Negative profit asset ratio indicated a low performance of FAPRO while profit to sale ratio was found to increase over years.

Conclusion

The analysis of financial and operational efficiency for examining the economic feasibility of FAPRO by using different measures indicated that the magnitude of total revenue earned and quantum of operational cost increased gradually over years. This showed a rapid expansion of the organization in a short time of establishment with addition of new activities. Higher increase in cost incurred for raw materials indicated that FAPRO played a pro active role in meeting the purpose of the organization. B-C ratio was also found to increase gradually over years due to expansion of the plant operational activities. Current ratio was at moderate level and at below the desired level of a banker's rule of thumb and the organization needs more accumulation of current assets than current liabilities in long run. Profit to asset ratio and profit to sales ratios were found much lower at the beginning and increased after a few initial years showing its viability. The overall B-C ratio was also higher than unity and it benefit was found to exceed five times of cost for value addition of turmeric seeds. However, capacity utilization of the plant under FAPRO was quite low, less than 5.00 per cent due to various factors like shortage of power, shortage of raw materials throughout the year, lack of storage and drying facilities, lack of multi-utility machines for which the plant had to remain idle for a greater part of the year. The organization was found to utilize idle and unutilized labour by adding some other value added activities so as to increase profit of FAPRO. If the shortcomings are met similar farmers' organization can be replicated in other parts of the country especially for value addition of perishables.

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