

Original Research Article

Process of organisation and Assessment of Socio-Economic benefits of Tamil Nadu Mango Growers Federation (TAMAFED) in Tamil Nadu State

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ABSTRACT

India has achieved self-sufficiency in food grain production and now the major concern is to achieve higher growth rate. The focus has now shifted from agriculture to horticulture. With the growing commercialization of agriculture and increasing dominance of supply chains, small farmers in India face both an opportunity for access to valuable markets. Creation of platform for farmers for better production and elaborate documentation of the process can lead to precision farming for successful marketing. Such models can manage to consolidate the activities both at input level by internalizing the production and at output by strategy of targeted marketing. The present study was conducted to assess the socio-economic gains of the TAMAFED members (a farmers' organization) of three districts namely Krishnagiri, Dharmapuri and Vellore of Tamil Nadu state. In the study it was found that mean transactional input cost (Rs.402.98) and transactional output cost (Rs.8034) for the members of TAMAFED were comparatively lower than that of non-members. In terms of social gains also the members were enjoying higher social participation, cosmopolitanism and material possession in comparison to the non-members. As such it was inferred that the organized farmers gained socio-economic benefit from TAMAFED.

Keywords

Mango Growers Association, TAMAFED, Transaction input cost, Transaction output cost

Introduction

India has achieved self-sufficiency in food grain production and now the major concern is to achieve higher growth rate. The focus has now shifted from agriculture to horticulture which besides imparting nutritional security, offers a great potential for efficient input use, higher returns per unit area, crop diversification, foreign exchange earnings and greater employment generation through post-harvest processing in agro industries (Sonawane *et al.*, 2001). With the growing commercialization of agriculture and increasing dominance of supply chains characterized by the

requirement of rigid adherence to strict grades and standards, small farmers in India face both an opportunity for access to valuable markets and the risk that they will be excluded from them.

Creation of platform for farmers for better production and elaborate documentation of the process can lead to precision farming for successful marketing. Such models can manage to consolidate the activities both at input level by internalizing the production and at output by strategy of targeted marketing.

The total production of fruits and vegetables in the world is approximately 370 metric tons. India proudly ranks first in the world, with an annual output of 32 metric tons. There are almost 180 families of fruits that are cultivated all over the world. Major fruits that are cultivated in India are mango, banana, citrus fruits, apple, guava, papaya, pineapple and grapes. Fruits especially mangoes and banana are in huge demand in international market. India is one of the leading mango producing countries in the world with an annual production of 15026.7 thousand mt from an area of 2312.3 thousand hectares with a productivity of only 6.5 mt/ha. Tamil Nadu is one of the leading states in India with a share of 9 percent in total fruit production (National Horticultural Database, 2009-10). In Tamil Nadu, area and production of mango was 132.7 thousand hectares and 636.3 thousand mt with the productivity of 4.8 mt/ha in the year 2009-10.

The functional linkages of mango growers with different system involved in the transfer of mango cultivation technology have direct bearing on quality and quantity of the produce. It brings to limelight the type and purpose of linkages with different organization and other resources for mango production and marketing (Rakesh *et al.*, 2005). The study of backward and forward linkages of production technology adopted by mango growers may provide the status and the points for making alterations required. The study is an effort to understand the gains of the members in term of economics as well as social due to membership of the organization.

Materials and Methods

For the present study three districts namely Krishnagiri, Dharmapuri and Vellore of Tamil Nadu state were selected. One block

in each district namely Pochampalli, Dharmapuri and Thirupattur were selected purposefully for the study undertaken. From each blocks, 20 member growers of TAMAFED were selected randomly.

Thus, 60 TAMAFED members were selected for the present study. For the purpose of comparison, 60 non-member mango growers were selected from above mentioned districts in the similar way as the TAMAFED members were selected. Thus in total 120 mango growers were considered for the study purpose. Forward and backward linkages in mango production were studied by conducting focused group discussion with members of TAMAFED and non-members. Transaction input cost and transaction output cost for members and non – members were compared using t-test.

Results and Discussion

Process of Organisation of Tamil Nadu Mango Growers Federation (TAMAFED)

In 2004, Tamil Nadu Agricultural University (TNAU) & Michigan State University (MSU) jointly embarked on a partnership under USAID's Higher Education for Development (HED) program to promote greater awareness and capacity for assisting small farmers to link to high value horticultural supply chains. It also aimed to meet the university-based training, applied research and outreach needs in order to propel India's horticultural sub sector.

The objectives of HED/USAID/MSU/TNAU collaborative project on "Building university capacity to improve fruit and vegetable supply chain management in India" (2004-2007) were:

Developing competency of faculty in supply chain management of fruits and vegetables.

Developing curriculum and learning opportunities in fruits and vegetable supply chain management.

Strengthening partnership linkages among stakeholders including farmers.

Supply chain specialists from US studied the existing marketing system in India and conducted two brainstorming workshops, one at Coimbatore for three days with forty-three participants and other at Dharmapuri for two days with thirty-nine participants. Final SWOT analysis revealed missing links in supply chain for perishables. It was recommended for identification of commodity growers, consolidation, training, empowerment of associations, linking the stakeholders and finally to carry on market led production of mango and banana. Thrust was given to form associations at district level, finally to represent the state through forming federation for individual crop.

Accordingly, an apex body called “Tamil Nadu Mango Growers Federation” (TAMAFED) was formed on February 21st 2006, to deal with all issues regarding mango production and marketing. Sixty five office bearers from seventeen mango growers associations of Tamil Nadu took the charge. Registration of office bearers of TAMAFED held on 10th March, 2006. This facilitated better team work among the farmers so as to face the various challenges in supply chain management.

The HED project empowered the federation members technically by means of exposure to various technologies in supply chain management through several workshops, seminars and training programmes within and outside Tamil Nadu. Further, the federation was empowered to interact with the government officials, bureaucrats and policy makers, across the table, on matters

of supply chain management of their commodity.

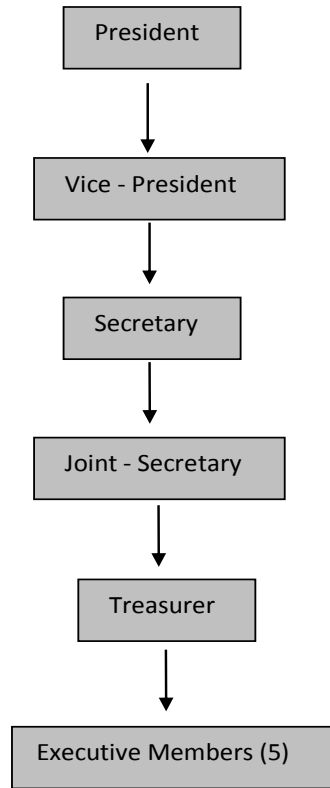
Economics of information on backward linkages like information on farming activities, procurement of saplings, input procurement, financial assistance and forward linkages like sale of produce, transportation, weighing, and commission were studied (Table 1).

Table 1 explains the various transactional input costs incurred by TAMAFED members and non-members. The comparative analysis shows that saplings procurement costs (comprising communication cost, travel cost, transportation cost and unloading charge together) was found to be lower for non-members than members of TAMAFED. This may be due to the fact that area under mango crop of non-members was lesser than that of members. So the mean sapling procurement cost was higher for members. Similar results are found in case with purchase of fertilizer and pesticide.

Table 2 explains the mean output transaction cost of TAMAFED members and non-members. The study shows that transaction output cost due to sale of harvested produce was lesser for members (Rs.8034.00/-) compared to non-members (Rs.18429.00/-). Members of the association have to incur loading charge only.

Table 3 explains the statistical test values for mean transactional input cost per hectare for members of TAMAFED and non-members. The mean value was found to be higher for non-members (Rs.1269.85) than that of members (Rs.402.98). Similar results were obtained with the t-statistics, where t value showed that there was a significant difference between member and non-members.

Organizational Structure: State level: TAMAFED



District: Mango Growers Association (MGAs)

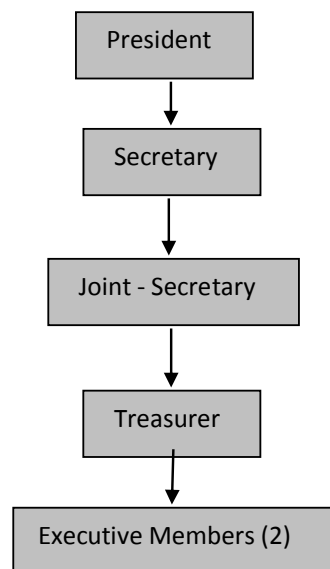


Table.1 Comparison of members and non-members of TAMAFED on Different input transaction cost

Various transaction input costs incurred (per hectare)		Mean (in rupees)	
		Members	Non-members
Saplings procurement	Communication cost	35.00	53.00
	Travel cost	162.00	195.00
	Transportation cost	370.00	266.00
	Unloading charge	170.00	212.00
Purchase of Fertilizer	Transportation cost	218.00	180.00
	Loading	437.00	210.00
	Unloading	436.00	210.00
Purchase of pesticide	Communication cost	34.00	19.00
	Transportation cost	26.00	33.00

Table.2 Comparison of members and non- members of TAMAFED on different output transaction cost

Various transaction output costs incurred		Mean (in rupees)	
		Members	Non-members
Sale of harvested produce	Transportation cost	0	7935.00
	Loading charges	8034.00	2116.00
	Unloading charges	0	2116.00
	Travel cost	0	45.00
	Weighing charges	0	60.00
	Commission	0	6094.00
Information on market Price	Travel cost for receiving information	0	63.00

Table.3 Comparison of members and non-members of TAMAFED in terms of Transactional input cost per hectare

	Transactional input cost per ha for members	Transaction input cost per ha for non- members
Mean	402.98	1269.85
SD	210.90	898.38
Minimum	79.75	260.50
Maximum	900.00	3357.50
t-stat	7.276	
t-critical	1.980	

Table.4 Comparison of members and non-members of TAMAFED in terms of Transactional output cost per hectare

	Transactional output cost per ha for members	Transaction output cost per ha for non- members
Mean	8034.00	18429.50
SD	7339.64	10570.39
Minimum	2400.00	8989.00
Maximum	48000.00	75274.00
t-stat	6.257	
t-critical	1.980	

Table.5 Distribution of the respondents based on their Social participation

Social participation	TAMAFED members		Non-member growers	
	Frequency	Percentage	Frequency	Percentage
No membership	6	10.00	37	61.66
Membership in one organization	34	56.66	13	21.66
Membership in two organizations	13	21.67	7	11.67
Office holder	7	11.66	3	05.00
Total (n)	60	100.00	60	100.00

Table.6 Distribution of the respondents based on their Cosmopolitness

S. No.	Category	TAMAFED members (n= 60)		Non-member growers (n= 60)	
		Frequency	Percentage	Frequency	Percentage
1.	Low	11	18.33	22	36.33
2.	Medium	35	58.33	30	50.00
3.	High	14	23.33	8	13.33
4.	Total (n)	60	100.00	60	100.00
		Mean	9.76	Mean	5.16
		SD	1.24	SD	1.97
		Range	8 – 12	Range	2 – 9

Table 4 explains the statistical test values of mean transactional output cost per hectare for members of TAMAFED and non-members. The mean value was found to be higher for non-members (Rs.18429.50/-) than that of members (Rs.8034/-). Similar results were obtained with the t-statistics, where t value shows that there exist a significant difference between members and non-members.

Social participation

Table 5 delineates the TAMAFED member and non-member farmers with their level of social participation.

It is clear from the table that 56.66 per cent of the TAMAFED members are involved in some social organizations. This is totally different in the case of non-contract farmers.

Majority of them (61.66 per cent) are not taking part in any of the organizations.

Cosmopolitaness

The Table 6 delineates the TAMAFED member and non-member farmers with their cosmopolitaness. It is evident from Table 6.6 that more than half of TAMAFED members (58.33%) had medium level of Cosmopolitaness, followed by high (23.33%) and low (18.33%). Whereas the 46.67 per cent non-member growers had medium level of cosmopolitaness, followed by low (36.33%) and high (13.33%) (Fig 4.3.5 & 4.3.6). Human activities are intended towards bringing about change in either one or more dimensions of human life. Even the economic and social activities have their own intended and unintended influences. In the present study an attempt was made to understand and analyse the socioeconomic changes/impacts as a result of joining of TAMAFED by its member farmers.

The major dimensions of socio-economic gains namely, change in input and output transaction cost, social participations and cosmopolitaness were analysed. Analysis revealed that, TAMAFED members were having significantly lesser input transaction costs as compared to non-members. This reduction in input transaction costs may be due to group basis operation leading to sharing of input transaction costs among the TAMAFED members. Similar results were found in case of output transaction costs. Member farmers were not having output transaction costs like, transportation cost, travelling cost, weighing charges and commission charges. This reduction in cost is due to the fact that member farmers were selling their product at their farm itself by having contract with whole-sale, retail dealers and processing industries. All this

charges borne by the buying agencies and hence member farmers could be able to save this output transaction costs as compared to non-members, who used to sell their produce in block or district level markets.

Analysis of social aspects viz., social participation and cosmopolitaness revealed that majority of the non-member farmers were having no membership in any of the organization. Whereas, majority of the TAMAFED members were having membership in at least one organization. This may be due to the fact that joining in TAMAFED gives exposure to external environment and newer social dimensions.

In case of cosmopolitaness there was no significant difference between member and non-member growers of TAMAFED. The cosmopolitaness of farmers was not influenced by the membership to TAMAFED.

From the study it was concluded that saplings procurement costs (comprising communication cost, travel cost, transportation cost and unloading charge together) was found to be lower for non-members than members of TAMAFED. The results showed that the output transaction cost was lower for members compared to that of non-members. This is due to the economies of large scale. The difference in output transaction cost between members and non-members are found to be significant. It was observed that the members are having better social participation compared to that of non-members. The cosmopolitaness of members was comparatively better to that non-member. It can be concluded from the study that input and output transaction costs and social participation were seen positive changes as a result of TAMAFED membership.

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