

Constraints Analysis of MAHAGRAPES Farmers

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ABSTRACT

Mahagrapes is a marketing partner to a group of grape growers' cooperative societies in Maharashtra. It helps grape growers in exporting their produce to European countries. The study was aimed at analysing constraints faced by *Mahagrapes* members during production and export of grapes. Nashik, Sangli and Pune districts of Maharashtra were purposively selected for data collection. Data were collected by focused group discussion and personal interview of members and constraints were ranked using Garrett's ranking technique. The study revealed that major constraints faced by farmers were difficulty in following recommended practices, absence of produce procurement policy, lack of price policy for grapes by the Government, non-availability of labour during peak season and more incidence of pests and diseases.

Key words: *Mahagrapes*, constraints, marketing partner, grape grower's cooperative societies, export.

INTRODUCTION

India has large varieties of fruits in the basket and accounts for ten per cent of world's total fruit production with second rank. Grape is one of the important fruit crops in India. The area under grape cultivation in India is about 111,000 ha, with annual production of about 12.35 lakh metric tons. Maharashtra, Andhra Pradesh and Karnataka are the major grape producing states in India. Maharashtra occupies the top slot in cultivation and production of grapes in the whole country having 86,000 ha area under cultivation (about 62 % of the country) with production of 7.74 lakh metric tons. Out of total production only seven per cent is exported to the Europe and other countries (NHB-2012).

A successful model that has helped in increasing export of grapes in India is Mahagrapes. Mahagrapes is the organization which helps in linking small and marginal farmers to export market. It was formed in January 1991 with the objective of elimination of middlemen in marketing process and also encouragement and development of agricultural export. It acts as a marketing partner to the group of sixteen producers cooperatives in Maharashtra state of India. Mahagrapes negotiates better prices for its members and also provides technical assistance, inputs and information to the farmers to enable them in meeting stringent quality requirement of export markets (Working Group Report, Planning Commission, GOI, 2007).

Mahagrapes performs different functions for its members such as: to source and develop worldwide

markets, to provide quality control in post harvest activities, supply and supervise branded packaging. Besides this, it also provides extension services and logistic support to members of co-operatives for production of export quality grapes. It also aims to encourage and develop agricultural export, maximize foreign exchange earnings, update the farmers on the latest technology in farming and accept global challenge with a commitment to quality *etc.* It has also helped in growth of co-operative movement.

Mahagrapes is considered as a success story because it has shown acumen as well as agility and has linked grape growers to international markets and has compressed the supply chain. In doing so, it has assumed barometric role. It is pioneer in bringing pre-cooling technology and array of post harvest operations resulting in better handling of produce. All these operations have pulled the farmers upwards in the supply chain (Roy and Thorat, 2008).

Mahagrapes has been exporting grapes to European markets for past sixteen years. In keeping with the international trend of fruit growers becoming exporters, the grape growers from Maharashtra entered international market with the help of *Mahagrapes*. However, during production and marketing of grapes, members face different constraints. Therefore, the present study was conducted to analyze the constraints faced by Mahagrapes farmers.

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METHODOLOGY

Ex-post facto research design was used for the study. The study was conducted in Nashik, Sangli and Pune districts of Maharashtra state of India as these districts comprise most of *Mahagrapes* members. From each district, 30 *Mahagrapes* farmers were selected. Thus, the sample size for the study was 90. A well structured interview schedule was designed and data were collected by focused group discussion and personal interview with the farmers. Garrett's ranking technique was used to rank the constraints. Garrett's formula for converting ranks into per cent is given below:

$$\text{Percent position} = 100 * (R_{ij} - 0.5) / N_j$$

Where,

R_{ij} = Rank given for i^{th} factor by j^{th} individual

N_j = Number of factors ranked by j^{th} individual

The per cent position of each rank was converted into scores referring to the table given by Garret and Woodsworth (1969). For each factors, the scores of individual respondents were added together and divided by the total number of the respondents for whom scores were added. These mean scores for all the factors were arranged in descending order, ranks were given and most important factors were identified.

RESULTS AND DISCUSSION

Mahagrapes members faced many constraints at various stages right from production to export. These constraints have been sub-divided into technical constraints, labour related constraints, economical constraints, marketing constraints, and general constraints.

Technical constraints

The data presented in Table 1 showed the technical constraints faced by members of *Mahagrapes*. It was found that difficulties in following the recommended practices was ranked first constraint by majority of farmers. This was because very stringent norms like EUROPEGAP and Codex standards need to be followed for producing export purpose grapes, particularly to European countries.

Lack of technical guidance regarding improved technologies and lack of adequate extension support/ technical guidance are ranked second and third, respectively. Patil (2008) in his study on constraints analysis of grape growers of Maharashtra also found that 46 per cent of respondents reported lack of technical guidance as major constraints.

Table 1: Technical constraints faced by *Mahagrapes* members n=90

Constraints	Garrett mean score	Rank
Difficulties in following the recommended practices	73.20	1
Lack of technical guidance regarding improved technologies	70.13	2
Lack of adequate extension support/ technical guidance	58.27	3
Unavailability of sprayers, dusters	55.53	4
Lack of availability of literature	50.40	5
Lack of care during storage period	35.67	6
Lack of varieties suitable for export purpose	33.07	7
Lack of storage facility	23.73	8

Constraint relating to 'lack of storage facility' was ranked last by farmers with Garrett mean score of 23.73. This may be attributed to cold storage chains established by *Mahagrapes* at each grape growers cooperative society. Members ranked constraints related to lack of varieties for export purpose and care during storage as least important constraints. Also, members did not perceive constraints related to availability of literature, sprayers, dusters etc. as important constraints and ranked them at medium level.

Labour constraints

The data presented in Table 2 show that non-availability of labour during peak period was the major constraint faced by members under labour constraints with Garrett mean score of 62.67. High cost of labour ranked second, while lack of technical skill of the labours in harvesting and processing was ranked third. Pagire and Jadhav (1992-93) in their study in Maharashtra found that 83.2 per cent farmers faced the problem of non-availability of skilled labour.

Table 2: Labour constraints faced by *Mahagrapes* members n=90

Constraints	Garrett mean score	Rank
Non-availability of labour during peak season	62.67	I
High cost of labour	48.73	II
Lack of technical skill of the labour in harvesting, processing.	38.60	III

Economic constraints

Economic constraints faced by *Mahagrapes* farmers are depicted in Table 3. 'Lack of price policy for grapes by the Government' ranked first by majority of farmers. This is mainly attributed to the fluctuation in price of grapes every year. This finding is supported by the study of Govinda Gowda (2002) on sustainable grape cultivation, wherein he found that important constraint in grape marketing was no fixed price to grapes. Constraints

related to insurance ranked second, while high cost of plant protection was third important economic constraint.

Table 3: Economic constraints faced by Mahagrapes members n=90

Constraints	Garrett mean score	Rank
Lack of price policy for grapes by the Government	72.67	I
Crop insurance is not covered for grape	64.40	II
High cost of plant protection chemicals	54.20	II
High cost of fertilizers	45.80	IV
Unawareness of credit facilities	31.60	V
High cost of planting material	31.33	VI

Marketing constraints

Under the marketing constraints, lack of procurement policy of the Government, was the major constraint faced by farmers (Table 4). Apart from procurement policy of Government, other constraints like heavy price fluctuation, lower price at harvesting stage, transportation problem, inadequate physical facilities in market were ranked second, third, fourth and fifth respectively. As *Mahagrapes* was involved in packing and grading operations, farmers perceived this as less important constraint.

Table 4: Marketing constraints faced by Mahagrapes members n=90

Constraints	Garrett mean score	Rank
Absence of produce procurement policy by the government	71.13	I
Heavy fluctuation in prices every year	66.80	II
Lower price at the harvesting stage	50.07	III
Problems of transportation	47.47	IV
Inadequate physical facilities in market	37.27	V
Non-availability of packing and grading facility	28.27	VI

General constraints

In general constraints (Table 5), 'incidence of pest and diseases' was ranked first with Garrett mean score of 75.47. 'Lack of insurance support' was ranked 2nd major constraint by farmers with Garrett mean score of 69.67. This was followed by lack of soil and water testing facilities, lack of mechanization, fragmentation of land holdings etc. From Table 5, it can be seen that members perceived constraints related to irrigation water and electricity as least important. These findings are supported by Patil (2008). In his study on constraints analysis of grape exporting farmers from Maharashtra, he found that most of the respondents (89%) were facing the problem of severe pest and disease attack and irregular supply of electricity (79%).

Table 5: General constraints faced by Mahagrapes members n=90

Constraints	Garrett mean score	Rank
More incidence of pest and disease	75.47	I
Lack of insurance support	69.67	II
Lack of soil and water testing facilities	59.20	III
Lack of mechanization	51.40	IV
Fragmentation of land holdings	49.47	V
Irregular supply of electricity	42.33	VI
Lack of irrigation facilities	30.00	VII
Irregular supply of canal water	23.47	VIII

CONCLUSION

The study conducted in Nashik, Sangli and Pune districts of Maharashtra, was aimed at analyzing the constraints faced by *Mahagrapes* members. Technical, labour related, economical, marketing, and general constraints, were studied and ranked using Garrett's ranking technique. Among technical constraints difficulty in following recommended practices was ranked highest by *Mahagrapes* members. Absence of produce procurement policy was the highest ranked constraint among marketing constraints, while lack of price policy for grapes by the Government was ranked highest among economic constraints. In case of labour constraints, non-availability of labour during peak season was the major constraint. More incidences of pests and diseases was ranked highest under general constraints by *Mahagrapes* members.

Paper received on : September 15, 2014

Accepted on : October 20, 2014

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