GRAPE CROP VALUE CHAIN ANALYSIS OFMARKETING SYSTEM IN TASGAON TALUKA

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SUMMARY

Introduction:

Horticulture is a best way for economic empowerment. It is helpful for the homogeneous development of the individual farmer, agrarian society and ultimately for the country. Since last two decades horticulture production has been increased considerably (Singh H. 2009). Grape growers need to get income as per their production cost, but this is not the real situation. Because of many times growers do not get sufficient income & their production cost is considered. They need big capital or investment long duration and risk at any time, and growers get less income. Benefit is circulated in marketing chain instead of growers. It is a loss of growers and consumers. Production cost of grape is higher. Consumers get grape fruit in two times higher rates that, it is sold by growers. Marketing chain is responsible to increase the value of grape. Hence, it is a need of hour to make aware to the growers about this trading chain, an attempt are made to analyze the market chain through the present research.

Grape is the most important fruit of India and scientifically is called Vitis vinifera L. and is also known as 'queen of fruits'. The country has the distinction of achieving the highest productivity of grapes among the 90 grape growing countries in the world, with an average yield of 30 t/ha. The grape is cultivated in the largest area i.e. 250 thousand ha and the production is around 2689 thousand tons in 2012-2013. Major grape-growing states in India are Maharashtra, Karnataka, Andhra Pradesh, Tamil Nadu, Punjab, Haryana, western Uttar Pradesh, Rajasthan and Madhya Pradesh. In India mainly Maharashtra, Karnataka, Andhra Pradesh and Tamil Nadu jointly contribute to more than 90 per cent of the total area and production of grapes. Total export of grapes from India is 172.6 thousand MT, valuing Rs. 1258.64 crores during 2012-13. The grape export from India was started in the year 1991 after economic liberalization. There is a phenomenal rise in export of grapes from India, as only 14,606 tons were exported during 2001-2002 which has increased to 17,25,999 tons in 2012-2013. The major importing countries of India's grapes were Bangladesh, Netherland, UAE, UK, Rassia , Saudi Arabia, Thailand, Sweeden, New Zealand, Malaysia, Australia, Shrilanka and Nepal respectively; these countries alone comprises of around 87 per cent of India's

total export of grape. Maharashtra is ranked first in production of grapes, producing about 62.7% of the total production of grapes in the country. Grapes are grown in an area of 0.09 m. ha, mainly in Ahmednagar, Nasik, Pune, Solapur, Sangli and Satara districts. The total production of grapes is 0.77m. MT which is highest in the country. The productivity is 9.0 t/ha. Thompson seedless is the main variety of table grapes being cultivated. An AEZ has been established for grapes covering the Districts of Nasik, Pune, Kohlapur, Satara and Sangli. The present strategy is to diversify into wine production. A number of wineries have come up at Sangli and adjoining areas and Maharashtra is now producing wines of international quality. There is a lack of adequate quantity of planting material for wine variety. Occurrence of frequent droughts has been affecting the performance of the crop. About 1.43 lakh MT of grapes have been traded in organized markets with average price of Rs. 19.14/kg. The climate of Maharashtra is conducive for horticulture, as inadequate rainfall does not have an adverse effect on production of fruits. The horticulture scheme that became effective in Maharashtra from 1990s onwards has helped in the transformation of the drought-prone as well as rain-shadow regions. Fruit production constitutes 25 per cent of the total agricultural produce in the State. Approximately, 103 lakh tons of fruits are produced every year. Maharashtra ranks first in the country in the production of fruits. A grape is among the major fruits grown in Maharashtra and areas under grapes have increased in the state. Therefore, the per cent changes in area, production and productivity of grapes were worked out. Also, the compound growth rates were worked out.

Dietary importance of grapes

Importance of fruits in human diet is universally recognized. Grape fruits are very nutritious containing 10.2 per cent carbohydrates, 0.8 per cent proteins, 0.1 per cent minerals and 85.5 per cent water. Fresh grapes contain many vitamins. Fairly good amount of vitamin 'A' is present which retains in dehydrated grapes also. It is one of the most delicious, refreshing and nourishing fruit. Ripped grape fruits are easily digestible. They can be consumed in many forms such as, fresh grapes, rasins, juice and wine. Grape juice is a nourishing thirst quencher, a stimulant to the kidneys and acts as a laxative. The principal product made from grapes is wine. Table purpose grapes must have an attractive appearance, good eating quality, good shipping and storage quality.

Table 1.1

Nutrition content in 100 gm. fresh table grape fruits.

Sr. No.	Content	Weight/ Percentage
1	Water	85.5 %
2	Carbohydrate	10.2 %
3	Protein	0.8 %
4	Fat	0.1 %
5	Minerals	0.1%
6	Fibre	3.0 %
7	Calcium	0.3 %
8	Phosphorus	0.02 %
9	Iron	0.2 %
10	Calories	45
11	Vitamins A	15 Mg.
12	Vitamins B	40 Mg.
13	Vitamins C	3.0 Gm.

1.3 Variety wise grape cultivation

Grapevine cultivation started in 1960 with the variety of Fakadi and Bhokari as alternative fruit crops. After 1980, it has been practiced as a traditional commercial fruit crop in a large extent of area. Presently, in Pune district the new varieties like Thompson Seedless, Tas- A-Ganesh, Sonaka, Manik chaman, Sharad Seedless and Flame Seedless are more practiced than other varieties. The analysis of variety wise area under grapevine cultivation at tahsil level reveals that area under Thompson Seedless variety is more followed by Sonaka and Tas-A- Ganesh are gaining more importance. Variety wise area under grapevine cultivation in each tahsil is different.

a) **Thompson Seedless**:-

It is vinifera grape, which originated in Asia Minor and was first grown in California by Willam Thompson near Yuba city. It is also call oval Kishmish in the Eastern Mediterranean region and Sultana in Australia and South Africa (Winkler 1974). It is believe to be grown in every viticulture country of the world. Large quantities of white desert wines are also made from this variety. However, it cannot be used for producing high quality table vine. The area of Thompson Seedless is highest in all varieties area, which share highest percent of the total grapevine area of the study region.

b) **Tas-A-Ganesh** :-

Tas-A-Ganesh is similar to Thompson Seedless in all respect except in the size of the berries and the clusters are larger than those of Thompson seedless. This mutant responds more to grapevine area application and girdling, resulting into a better quality fruit than Thompson Seedless. This variety was identified by the late Vasantrao in his vineyard at Borgaon in Sangli district. The area under this variety is more and it constitutes 15.35 per cent of the total area under grapevine in the study region.

c) **Sonaka**:-

Sonaka is also similar to Thompson Seedless in all respect expect it responds to grapevine area application better than Tas-A-Ganesh and Thompson Seedless. As a result, the berry elongation is better and the berry skin is thin but it is more susceptible to berry cracking and rotting if it rains at the harvest. It was identify by Shri Nanasaheb Kale in his vineyard at Nanaj in Solapur district.

d) **Manik chaman** :-

Manik chaman is like a variety of sonaka invented by Shri. T. R. Dabhade at Nanaj in the Solapur region . This is the third ranking variety, which constitutes 10.37 percent of total grapevine area of the study region. Other coloured varieties like Sharad Seedless and Flame seedless are also planted in the entire region .

e) **Sharad Seedless** : -

These grapes are seedless, black in colour and are very good for table and wine purpose. This variety is made available in market in the month of

January and February.

f) **Flame Seedless :-**

This variety is red in colour. Flame seedless grapes are the
result of a cross between Thompson, Cardinal and other grape varieties.
Flame grapes are one of the most popular varieties along with Thompson
grapes. These grapes are seedless, sweet-tart, and crunchy. This variety is also made
available in market in the month of January and February.

1.4 Availability of grapes in market

The month wise availability of grapes in different states is shown in figure 1.
The grapes are made available in the market for consumption from the month of mid
December to mid May in Maharashtra, Karnataka and Andhra Pradesh but peak
season starts from February and March month. When the season of above states
over, the arrival from Punjab and Haryana starts and end in the month of July and
mid August. Tamil Nadu is only state which provide the grapes in market for almost
ten months.

1.5 Area, production and productivity of grapes.

World scenario:

Grape (*Vitis vinifera*) is an important fruit crop in India. Grape is the third
most widely cultivated fruit after citrus and banana. Globally grapes production
contributes to about 16% of the total fruit production. According to Food and
Agriculture Organization data (2009), the leading grape producing countries in the
world in terms of production are Italy, China, USA and France while in term of area
are Spain, France, Italy and China. The average productivity of the world is 9.77
tones / ha. . India produced 1667.70 thousand tones during 2009 which was about
2.49 per cent of the total world production. In case of productivity, India stand first
(26.06 tones / Ha) in the world. The details are given in table 1.2

Table 1.2

Major producing countries of grapes in world (2009)

SI. NO.	Country	Area (000 Ha)	Production (000 Ha)	Productivity Tones /Ha.
1	Italy	827	8,519.42	10.30
2	China	466	6,787.08	14.56
3	U. S.	415	6,384.09	15.38
4	France	864	6,044.90	7.00
5	Spain	1175	5,995.30	5.10
6	Turkey	812	3,612.78	4.45
7	Iran	286	3,000.00	10.49
8	Argentina	208	2,900.00	13.94
9	Chile	184	2,350.00	12.77
10	**India**	**64**	**1,667.70**	**26.06**
11	Other	2042	19960.00	9.77
12	**World**	**6877**	**67,221.27**	**9.77**

Source: Indian Horticulture Database, 2009

Indian scenario

There is sizeable increase in acreage and production of grapes in India. In acreage, there is an increase from 47.3 thousand ha in 2001-02 to 80.00 thousand ha in 2008-09. Similarly the production has increased from 1,184.2 thousand tons in 2001-02 to 1,878.0 thousand tons in 2008-09.The details are given in table 1.3.

Table 1.3
Area, production, and productivity of grapes in India.

SI. NO.	Year	Area (000 Ha)	Production (000 Ha	Productivity Tones /Ha.
1	2001-02	47.30	1184.2	25.18
2	2002-03	52.10	1247.8	23.95
3	2003-04	57.08	1474.8	25.84
4	2004-05	60.50	1564.7	25.86
5	2005-06	66.00	1649.6	24.99
6	2006-07	65.00	1685.5	25.93
7	2007-08	68.00	1773.0	26.07
8	2008-09	80.00	1878.0	23.48

Source: Indian Horticulture Database, 2009.

Area and production of grapes in major producing states of India during 2007-2008 and 2008- 2009 is given in the table 1.4.

Major Producing States in India:

Grape is an important fruit crop of India. Maharashtra, Karnataka, Tamil Nadu, Andhra Pradesh and Punjab are the major grapes growing states. Maharashtra was the largest grapes producing state accounting for 75.33 per cent of total country's production followed by Karnataka (14.32 per cent), Tamil Nadu (4.84 per cent), Andhra Pradesh (3.31 per cent) and Punjab (1.18 per cent) of total production during 2008-2009. Maharashtra and Karnataka together contributes about 89.65 per cent of total national grapes production. Maharashtra ranked first with 69.97 per cent of total area during 2008-2009.

Table.1.4

Area, production and productivity of grapes in different states.

State	Area(000' Hectares)			Production(000' Tones)			Yield (Tones/Hectare	
	2007-2008	2008-2009	% to Total Area	2007-2008	2008-2009	% to Total Production	2007-2008	2008-2009
Maharashtra	45.6	55.7	**69.97**	1290.0	1415.0	**75.33**	28.3	25.4
Karnataka	14.3	14.9	18.71	258.8	269.0	14.32	18.1	18.0
Tamilnadu	2.8		3.89	83.5	91.0	4.84	29.8	29.8
Andhra Pradesh	2.8	3.0	3.76	58.0	62.2	3.31	21.0	21.0
Punjab	1.0	0.8	1.00	26.7	22.1	1.18	26.7	28.4
Other	1.9	2.2	2.76	17.6	19.0	1.01	9.4	8.7
All India	**68.3**	**79.6**	**100**	**1734.7**	**1878.3**	**100**	**25.4**	**23.6**

(Source-National Horticultural Board, database)

1.7 Maharashtra Scenario:

Table 1.5
Area, production, and productivity of grapes in Maharashtra.

SI. NO.	Year	Area (000 Ha)	Production (000 Ha	Productivity Tones /Ha.
1	2003-04	41.4	1163.10	28.1
2	2004-05	43.08	1233.90	28.2
3	2005-06	45.10	1275.00	28.3
4	2006-07	65.00	1685.00	25.9
5	2007-08	45.60	1290.00	28.3
6	2008-09	55.70	1415.00	25.4
7	2009-10	45.00	1735.00	25.5
8	2010-11	80.00	1878.00	23.5

(Source-National Horticultural Board, database)

This might be because of extensive research, new effective techniques, advance irrigation facilities, availability of infra structure facilities and marketing management in the State. Grape cultivation is concentrated in districts viz., Nashik, Sangli, Pune, Solapur, Ahmednagar, Latur, and Aurangabad. In Sangli district, Tasgaon and in Nashik district, Niphad areas are very famous for quality production, productivity as well as for the efficiency of cultivation.

In spite of considerable increase in area and production of grapes in Maharashtra, the grape growers have to face numerous odds from point of view of natural factors like climate and rainfall as well as economical factors like marketing and prices. Due to adversity of the various factors, grape growers find difficulties in obtaining fixed and remunerative net income. The grape growers have to pay more attention to production as well as the marketing management.

Value

Barbon (1969) stated that "By value, is to be understand the price of things; that, what anything is worth to be sold" at that time value is totally depends upon it cost but Coyle et al (1996) stated "An important consideration is that value must be viewed from the customer's perspective, because it is value to the customer that is most important. The value is condition which motivates the people and very across culture and which emphasizes the needs, requirement, wishes and ultimate demands of the consumer. There is no any comprehensive and complete definition of value and so many people failed to define it e.g. Wilson and Jantrania (1995). Porter (1985) gave his statement about value that "value is the amount buyers are willing to pay for what a

firm provides them.

Value Chain

Michael Porter was the first person who introduced the term "Value Chain' in his book Competitive advantage: Creating and Sustaining Superior Performance (Porter 1985). Michael Porter defines "Value Chain'' as a representation of a firm's value-adding activities, based on its pricing strategy and cost structure. The ability of any firm to understand its own capabilities and the needs of the customer is crucial for competitive strategy to be successful. The first steps in conducting the value chain analysis are to break down the key activities which involve in the frame work. The next steps are to assess the potential for adding value through the means of cost advantage or differentiation. Finally, it is very important for the analyst to determine the strategies that focus on those activities that would enable the company to attain sustainable competitive advantages. The profitability of a firm depends on how effectively it manages the various activities in value chain; price that the customer is willing to pay for the company products and services exceeds the relative cost of the value chain activities. Value chains encompass the full range of activities and services required to bring a products or services from its conception to sale in its final market whether local, national, international or global. Value chain includes producers, inputs suppliers, operation, processors, retailers and buyers. They are supported by a range of technical, business and financial services providers. (USAID, Briefing Paper) "A Value chain Analysis is an alliance of enterprises collaborating vertical to achieve a more rewarding position in the market." The value chain mainly focuses on the market collaborating strategy, where it emphasized the linkages between production, marketing etc. activities of the products and services in an effective and efficient manner. Vertical alignment is also an important aspect where companies connect one end of the primary activities up to the last end of the supportive activities, at each stage of the products which to increases value. "A value chain in its simplest form is a collaborative effort" …….
Jerry bourna David Hughes said that "Consumers will look for attributes or benefits in the food product rather than price alone. It will be essential to identify these elements and build them into your value chain for mutual benefits. Value chain has both structural and dynamic components in which the structure of the value chain influences the dynamics of firm behavior and this dynamic persuade how well the value chain performs. Value chain structure includes the five elements like end

market, Business and enabling environment, vertical linkages, supporting market and horizontal linkages. End markets are their own role in the value chain structure and it represents the last user of the products or services not a physical markets. It plays a significant role in determining the quality, quantities, prices and timing for the success of the product or services for any firms and it also helps to create a demand for the products. Different types of policies, trade agreement, rules & regulation and infrastructure scarcity which creates barriers and its availability helps in smoothening the progress of the value chain of the products or services at the local, national and international level. There are many factors helps in market expansion in which trade agreement and quality standards are there, which has considerable role in the market expansion but it has very much valuable for the MSMEs firms. Some of the rule or regulation which was made at the local level has a great role for influencing the competitive level of the firms. The linkage between the firms also affects the value chain of the products or services. The vertical chain of the firms is most efficient transaction which increases the overall competitiveness of the firms. The support market has their own role for the making of the value chain more efficient in which it includes a legal advices & telecommunication sectors specifics services, handicraft design etc It is a continuous process which adds value to its chain which started from customer's needs and demands to reach up to the input activities of the primary activities. There are needs of value addition in each stage which help to differentiate it from its competitors at a cheaper rate with best quality The researchers believe that customers is the ultimate goal of an enterprise which influence them to create such an unique article which fulfill their desired which help by supply chain to provides it in an efficient manners. Willingness of the customers plays a significant role to give direction to the strategic formulating bodies to give preference before manufacturing of their products and services.

Study Area:

The present research work related to only Tasgaon Taluka.

Objectives of Research Project:
There are following objects for this research.
1. To study Market value of Grape
2. To Know trade channel of grape in study region

3. To Study the price built up along with the value chain of grape

Hypothesis of Research Project:

The grape marketing system is positive relationship between marketing cost and length of marketing channels.

Research Methodology & Research Design:

The present study will concerned with the study of Grape Crop Value Chain Analysis of Marketing System in Tasgaon Taluka. So the required data for the study will be collected from Primary Sources and Secondary Sources.

- **Primary Sources :**

The study will made as an analytical one based on primary data. The primary data will be obtained from the sources like, grape farmers of selected from tehasil. Service Providers, Company Persons, Fruits Markets, Market Intermediaries etc.

- **Secondary Sources :**

The secondary data necessary for this investigation was collected mainly from the various libraries, Government publish sources as well as the Internet,(web sites relating to the study) Maharashtra State Agricultural Marketing Board, Pune, Maharashtra State Horticultural Mission, Pune, MPKV, Rahuri, FAO reports, India stat, India harvest, Several other magazines.

Methods of Analysis:

For the analysis and interpretation of the data various statistical tools and techniques will be used. Computer software's is used for e.g. S.P.S.S., MS-Office etc. will be used for the same.

Sample size-

The researcher will use the stratified random sampling method for the selection of the sample for the study.

Limitation of the Research Study:

The Study will confine with only Value Chain Analysis of Marketing System in Tasgaon Taluka. There are 10 villages selected for the study which having more grape production. Maximum study is depended on primary data, farmers and some market intermediaries may not be maintaining their records which using proper accounting system and also same intend problem in relevancy data given by them.

Chapter Scheme of Research Project:

CHAPTER -I INTRODUCTION AND RESEARCH METHODOLOGY
CHAPTER –II REVIEW OF LITERATURE
CHAPTER –III ANALYSIS AND INTERPRETATION OF GRAPE PRODUCTION IN TASGAON TALUKA.
CHAPTER –IV ANALYSIS AND INTERPRETATION OF VALUE CHAIN ANALYSIS OF MARKETING SYSTEM IN TASGAON TALUKA
CHAPTER -V CONCLUSION AND SUGGESTIONS

Conclusion and Suggestions

This chapter summarizes the main findings of the study and provides suggestions for the betterment of grapes Value Chain Analysis in the study region.

Summary of the Findings

In this section, major findings of the study are summarized. These are as follows:

1. India's annual growth rate of area under grapes production from last thirteen years were fluctuated but the compound growth rate was positive with the value of 7.95 percent. Rate of growth of grapes production is superior to growth rate of area under its cultivation. It indicates that India has started their production of grapes with inclusive form of horticulture production from last few years.

2. Maharashtra state is having significant capability in grapes production of India. The state having on an average 68.65 percent share in countries total grapes production.

3. It was appears that total production of grapes of Tasgaon taluka was 191610 MT in 2010-11and with ups and downs and minor changes the production was stood with size of 195673 MT in 2014-15. Here it was observed that, even there is positive change in area under the cultivation for the year 2011-12, production was decreased by -6.57 percent.

4. It was observed that majority of grapes cultivators were in age group of 40 to 55 years. It indices that bulk of cultivators may take the decisions related to their farming practices on their own responsibility.

5. Majority of the respondents having more than five acres land and they are using more portion of it for the purpose of grapes production.

6. In total cultivated area of Tasgaon taluka share of small farmers were 0.33 percent and medium farmers 2.33 percent. The percentage of respondents who were highly commercialized with having more than 5 acre cultivated land i.e. large farmers contributes 21.67 percent. So it reveals that from last two decades attitude of the farmers were shifted from non-cultivation or less cultivation to extensive cultivation of grapes.

7. Quality of fruit is measured through its weight and density. In the study region it was find out that maximum farmers were producing a fruit.

8. It was observed that only 1.67percent respondents were following storage facility for the maintenance of quality of their product up to the selling decision. Hence it was resulted that majority of respondents were not following scientific storage method in quality maintenance.

9. There is significant relationship between size of farmer and grapes productivity.

10. 78.67 percentrespondents were sold grapes in Tehasil and district market and only 5.00 percent respondents of large grapes cultivators were exported pomegranate.

11. It was observed that majority of respondents i.e. 92.00 percent were gave preferred APMC's for marketing of their finished grapes product.

Suggestions:

On the basis of field survey, data analysis and findings of the study the researcher offers the following suggestions for the future development of Grapes supply chain management.

1. It was found that majority of respondent were in age group of 25 to 55 years and 93.67 percent were literate but only 15.33 percent had graduate and post graduate degree . Hence it is suggested that a suitable training programmes are to be arranged about Value Chain Analysis and marketing by governments, agriculture universities or institutes as well as APMC's.

2. Grapes production has good commercial potential and the area under this production is significantly grown up in the study area. Hence, Government should plan and provide incentives for establishing numbers of processing units to safeguard the interest of grapes growers.

3. It is need to be establish proper, scientific storage facility in the every tahasil of study area which should help to maintain price level as well as helps to the producer to sell their product at expected price and it should also help to maintain quality of the product.

4. Market is depends on information and technology services so it is need to provide update information and future prospects of grapes production and marketing to producers and to the market intermediaries which should help for transparency in business and reliability on supply chain.

5. India having strong potential in grapes production so it is essential to make a mind of producers for export oriented production with proper tanning as well as to form grapes export centers in the APMC's and make linkage between grapes producers of Solapur district and global market.

6. The Government should take necessary steps for the establishment of cooperative societies of the grapes producers which should help to earn more benefits about production and marketing via group capability.

7. There is need to make proper communication via all type of media's between producers and market intermediaries for strengthen supply chain of pomegranate.

8. There are number of higher education centers, colleges or institutions working in the study area so with understanding significance of grapes production there is need to start some programmes related to grapes production and marketing management at this higher education level. Which should help to attract youngers towards horticultural production specially pomegranate.

9. The rate Minimum Support Price (MSP) of grapes should be presented by Government which would be lessened the risk of price uncertainty and the producers should encourage.

Conclusion:

The area of present research is associated with Value Chain Analysis of grapes in Tasgaon taluka. The future of grapes production in the study region is bright. Grapes production is an agricultural production and grapes supply chain management

is agro related business so it provides employment opportunities directly as well as indirectly. Government support is also needed for it. Application of modern tech based practices in production as well as marketing and efficient management strategies followed by producers in production practices and APMC's at marketing practices can increase the market efficiency as well as profitability for each. This type of applied management may help for strengthening supply chain of grapes in study region. There is scope for investment in grapes process industries for private sector.

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