

Producer's Share in the Consumer Rupee and Unit Cost Returns for Grape and Pomegranate Marketing in Bijapur District

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ABSTRACT

A prosperous agriculture sector is critical for the sustained growth of the Indian economy and horticulture is a part of agriculture. India is the second largest producer of fruits and vegetables in the world, next to China. Its share in the world's production of fruits is 11 % and vegetables 7%. The production of fruits in India is more than 43.00 million tons and that of vegetables is more than 88.62 million tons. Horticulture from an area of just 8.5% of the total area under agriculture is estimated to contribute over 24.5% to the agriculture GDP of India. To achieve a sustained growth in this all important sector, the horticulture farmers who form the backbone of the sector should be able to gain economic advantages through horticulture farming. The present study intends to estimate the producer's share in the consumer rupee and the unit cost returns for both grape and pomegranate cultivation in the district of Bijapur in Karnataka state. The data for the study was collected from 168 horticulture farmers representing small, medium and large farmers and also representing all the taluks in Bijapur district using stratified random sampling technique. An Interview schedule was personally administered to the sample horticultural farmers to collect the data. The data so collected is analyzed, interpreted and presented in the paper.

INTRODUCTION

Agriculture is the mainstay of the Indian economy. The contribution of agriculture towards national income was about 26% in the year 1999-2000. Post independence the major focus was towards attaining self-sufficiency of food production. High yielding varieties, improved technologies and better irrigation facilities resulted in food security ushering in the green revolution in the sixties. The importance of horticulture in the field of agriculture in India has been realized of late. Horticulture from an area of just 8.5% of the total area under agriculture is estimated to contribute over 24.5% to the agriculture GDP of India. In the advanced countries horticulture is well established and treated as an industry.

Many factors have contributed to the growing importance of the horticulture sector in the Indian economy. The sector provides tremendous employment potential in the rural areas where 72.2% of the Indian population resides, both in the farm and non-farm sectors. There is great scope for the women to make a significant contribution in the post-harvest operations. The sector helps generate more income to the farmers and provides increased sustainability of small land holdings, greatly helping marginal and small farmers who form the major percentage of the farmers in India. Horticulture also provides greater contribution to the processed food products industry and also a great potential for foreign exchange earnings in the era of globalization

India enjoys diverse agro-climatic conditions, enormous biodiversity, fertile soil and large cultivable area. It can boast of being one of the few countries in the world which can grow large varieties of horticulture crops all the year round. The climate is most suitable for growing a variety of horticultural crops such as fruits, vegetables, flowers, nuts, spices and plantation crops. India is the second largest producer of fruits (43.01

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Million MT) and vegetables (88.62 Million MT) in the world, as of 2001-02. It contributes 10.23% and 14.45% of the total world's production of fruits and vegetables respectively.

Horticulture is one of the major economic activities in Karnataka state. It contributes to about 40% of the state's income from combined agriculture sector. The state is blessed with ideal agro-climatic conditions and an enterprising farming community. This has resulted in the growth of the horticulture sector in the state. The area under horticulture cultivation is estimated at 15.81 lakh hectares. This accounts for 15% of the total cultivable area in the state. Grapes and pomegranates are the two important commercial fruit crops grown in Karnataka. The state stands second in the cultivation and production of grapes and pomegranates in the country next only to Maharashtra state. The successive governments in the state are encouraging the cultivation and marketing of these commercially profitable crops to improve the economic conditions of the horticulture farmers in particular and the economy of the state in general. It is critical to understand the economics of the cultivation and marketing of these two commercially important crops of the state and hence the present study was undertaken.

The area of study was Bijapur district, a horticulture hub in the state of Karnataka. Horticulture is the major activity in this industrially backward district of the state and the horticulture products are grown by both the large and small farmers. So also it is the leading grapes and pomegranate growing district in the state producing more than 40% of the state's output.

Objectives of the present study

THE OBJECTIVES OF THIS STUDY ARE:

- 1) To estimate the producer's share in the consumer rupee for both grape and pomegranate
- 2) To estimate the unit cost returns for both grape and pomegranate

RESEARCH DESIGN AND METHODOLOGY SAMPLE DESIGN

For the purpose of the study the horticulture farmers were grouped, based on their land under horticulture farming into three categories, viz., small farmers (less than 5 acres), medium farmers (5 acres and more but less than 10 acres) and large farmers (10 acres and above). The sample size for the study was 168 horticulture farmers representing all three categories of farmers and all the five talukas in Bijapur district. The technique that was used was stratified random sampling.

SOURCES OF DATA

Both primary and secondary data was collected for the research study. The investigation was however based largely on the primary data collected from the farmers through an interview schedule administered personally with open ended; close ended and multiple choice questions.

Secondary data was collected by researching concerned journals, work of other researchers, articles presented in seminars and conferences, publications of government, non-government agencies and other support institutions, Internet and discussions with progressive horticulture farmers and other concerned experts in the field of horticulture.

METHODS OF DATA COLLECTION

The list of villages where grapes and pomegranates were cultivated, for all the five talukas was collected from the office of The Deputy Director of Horticulture, Bijapur. The names of the villages in each taluka

were written on chits and lots picked up. Then each of the so selected village was visited. The list of horticulture farmers in each village for all the three categories of farmers was collected from the concerned Gram Sevak of The Department of Agriculture. The required numbers of sample respondents in each village, and in each category were selected by draw of lots. The sample respondents were personally interviewed to achieve higher respondent participation and to generate quality data. The period in which the survey was conducted for the research study was the financial year 2004-05. The data so collected through the field survey was systematically classified and tabulated to ensure proper analysis, interpretation and presentation of the findings of the survey.

RESULTS AND DISCUSSIONS

PRODUCER'S SHARE IN THE CONSUMER RUPEE AND UNIT COST RETURNS

Any activity carried out as a profession should yield reasonable economic returns. The economic well being of the horticulture farmer not only contributes to the horticulture and agriculture sector but also to the economy of the country as a whole. The economic well being of the horticulture farmer will depend on the monetary returns realized by the farmer for all the investments made (both monetary and non monetary) by the farmer in the production and marketing of the horticulture produce.

ANNUAL AVERAGE PRODUCTION COST PER ACRE

The annual average total production cost per acre incurred by the respondents in the study area of Bijapur district for that of grape and pomegranate are calculated and have been presented in Table 1. From Table 1 below it is observed that the annual average production cost per acre for grapes is Rs. 69,467.15 for the small farmers, Rs. 71,415.80 for medium farmers and Rs. 77,028.43 for large farmers. Similarly it is also observed that the annual average production cost per acre for pomegranates is Rs. 30,044.88 for the small farmer, Rs. 31,166.20 for medium farmers and Rs. 33,392.98 for large farmers. It is further observed that as the size of the farm increases the total production cost per acre increases both in the case of grapes and pomegranates.

TABLE 1
Annual Average Production Cost per Acre for Grapes and Pomegranates in Rupees

	Grapes	Pomegranates
Small Farmer	69,467.15	30,044.88
Medium Farmer	71,415.8	31,166.2
Large Farmer	77,028.43	33,392.98

Source: sample respondent farmers

ANNUAL MARKETING COST PER ACRE

The costs incurred by the horticulture farmers in marketing of their produce are quite substantial. The results of the field survey and investigation with respect to the marketing costs incurred by the respondent horticulture farmers in the study area for grapes and pomegranates are presented in Table 2 and Table 3 respectively. From Table 2 it is observed that total costs per acre, incurred in the marketing of grapes in the study area is Rs. 47,237 for the small farmers, Rs. 47,691 for the medium farmers and Rs. 48,316 for the large farmers. It is also observed that the cost per acre of marketing of grapes increases with the size of the farm in the study area. The average for all the category of farmers is Rs. 47,748. It is further observed that packaging cost at 30.2% constitutes the major marketing cost, followed by commission charges at 26%.

Labor cost constitutes 23.7% and transportation cost 17.5 % of the total marketing costs incurred by the respondent farmers in marketing of grapes per acre in Bijapur district.

TABLE 2
Average Marketing Costs per Acre for Grapes in Rupees

Category of Farmer Marketing Costs	Small Farmer	Medium Farmer	Large Farmer	All Farmer	Percentage of Total Costs for all farmers
i. Labor	11813	11346	10750	11303	23.7%
ii. Packaging	14850	14183	14234	14422	30.2%
iii. Transportation	7875	8510	8719	8368	17.5%
iv. Commission	11236	12517	13538	12430	26.0%
v. Miscellaneous	1463	1135	1075	1224	02.6%
TOTAL MARKETING COSTS PER ACRE	47,237	47,691	48,316	47,748	100%

Source: Field Survey

TABLE 3
Average Marketing Costs per Acre for Pomegranates in Rupees

Category of Farmer Marketing Costs	Small Farmer	Medium Farmer	Large Farmer	All Farmer	Percentage of Total Costs for all farmers
i. Labor	3349	4025	4652	4009	21.9%
ii. Packaging	2536	2911	3363	2937	15.8%
iii. Transportation	3588	4954	5510	4684	26.0%
iv. Commission	4171	5918	7059	5716	33.3%
v. Miscellaneous	622	805	644	690	03.0%
TOTAL MARKETING COSTS PER ACRE	14,266	18,613	21,228	18,036	100%

Source: Field Survey

Table 3 above reveals that the total costs per acre, incurred in the marketing of pomegranates in the study area is Rs. 14,266 for the small farmers, Rs. 18,613 for the medium farmers and Rs. 21,228 for the large farmers and the average for all the category of farmers is Rs. 18,036. It is also seen that the cost per acre of marketing of pomegranates increases with the size of the farm in the study area. It is further observed that in case of pomegranates commission charges at 33.3% constitutes the major marketing cost, followed by transportation charges at 26%. Labor cost constitutes 21.9% and packaging cost just 15.8% of the total marketing costs incurred by the respondent farmers in marketing of pomegranates per acre in Bijapur district.

The summary of average costs per acre incurred by the respondent farmers in all the categories in the study area of Bijapur district for both grapes and pomegranates is presented in Table 4. It is observed from Table 4 that the marketing cost constitutes 39.7% of the total costs in case of grapes and 36.4% in case of pomegranates in the study area of Bijapur district.

TABLE 4
Average Costs per Acre in Rupees for Grapes and Pomegranates

Horticulture Product Costs per Acre	Grapes	Pomegranates
1. Production Cost	72637	31535
2. Production Cost as Percentage of Total Cost	60.3%	63.6%
3. Marketing Cost	47,748	18,036
4. Marketing Cost as Percentage of Total Cost	39.7%	36.4%
5. TOTAL COSTS PER ACRE	1,20,385	49,571

Source: Sample Respondents and Field Survey

UNIT COST RETURNS FOR GRAPE AND POMEGRANATES

The return on every rupee invested by the horticulture farmer in the production and marketing of his produce is a good indicator of the economic viability of his efforts. The results from the field survey and investigations conducted by the researcher in the study area of Bijapur district with respect to the return on every rupee invested by the horticulture farmer in the district for the cultivation and marketing of grapes and pomegranates are presented in Table 5 and 6 respectively. It is observed from Table 5 that return on every rupee invested by the grape farmer is 1.2 for the small farmer, 1.31 for the medium farmer and 1.35 for the large farmer. It is seen that as the size of the land holding increases the return on every rupee invested by the grape farmer in the cultivation and marketing of his produce also increases. From Table 6 it is seen that the return on every rupee invested by the pomegranate farmer is 1.18 for the small farmer, 1.48 for the medium farmer and 1.62 for the large farmer. It is clearly observed that as the size of the land holding in pomegranate farming increases there is a significant increase in the return on every rupee invested by the farmer in the cultivation and marketing of his produce in the study area of Bijapur district.

TABLE 5
Unit Cost Returns of the Respondents for Grapes

Farmer Category Particulars	Small Farmer	Medium Farmer	Large Farmer
a) Average Yield per Acre in Kg.	11250	11346	11944
b) Average Price Received per Kg.	12.4	13.74	14.14
c) Average Income Per Acre	139500	155894	168888
d) Average Production Cost per Acre	69467	71416	77028
e) Average Marketing Cost per Acre	47237	47691	48316
f) Total Cost	116704	119107	125344
g) Returns Per Rupee Invested per Acre	1.2	1.31	1.35

Source: Sample Respondents and Field Survey

TABLE 6
Unit Cost Returns of the Respondents for Pomegranates

Farmer Category Particulars	Small Farmer	Medium Farmer	Large Farmer
a) Average Yield per Acre in Kg.	4784	6193	7156
b) Average Price Received per Kg.	10.91	11.93	12.34
c) Average Income Per Acre	52193	73882	88305
d) Average Production Cost per Acre	30045	31166	33393
e) Average Marketing Cost per Acre	14266	18613	21228
f) Total Cost	44311	49779	54621
g) Returns Per Rupee Invested per Acre	1.18	1.48	1.62

Source: Sample Respondents and Field Survey

PRODUCER'S SHARE IN THE CONSUMER RUPEE FOR GRAPES AND POMEGRANATES

Producer's share in the consumer rupee is a very important parameter used in the studies on agriculture and horticulture marketing. In the present study the producer's share in the consumer rupee is defined as "the price received by the horticulture farmer for one unit of his horticulture produce expressed as a percentage of the price paid by the final consumer". The higher the value of the producer's share in the consumer rupee the better for the farmer.

The results of the field survey and investigation with respect to the producer's share in the consumer rupee of the respondent farmers in Bijapur district for the grape and pomegranate farmers are presented in Table 7 and Table 8 respectively.

From Table 7 it is observed that the producer's share in the consumer rupee in case of grape cultivation in Bijapur district is 43% for the small farmer, 50% for the medium farmer and 53% for the large farmer. So also it is seen that as the size of the land holding increases the producer's share in the consumer rupee also increases. Similarly it is observed from Table 8 that the producer's share in the consumer rupee in case of pomegranate farmers in the district is 44% for the small farmer, 49% for the medium farmer and 52% for the large farmer. It is further observed that as the size of the land holding increases the producer's share in the consumer rupee also increases.

LIMITATIONS OF THE STUDY:

The study does not cover the entire population of the farmers in Bijapur district due to limitations of time and resources. However care was taken to ensure that the sample chosen was representative of the population.

CONCLUSIONS

The study indicates that the unit cost returns ranges between 20% to 35% for different categories of farmers in case of grape cultivation and 18% to 62% in case of pomegranate cultivation. The producer's share in the consumer rupee ranges between 40-55% for different categories of farmers, both in case of

grapes and pomegranates. The unit cost returns and the producer's share in the consumer rupee increases with the size of the land holding in case of both grape and pomegranate cultivation indicating that larger farmers are able to make better utilization of the input resources needed for both cultivation and marketing.

TABLE 7
Producer's Share in the Consumer Rupee of the Respondents for Grapes

Category of Farmer Particulars	Small Farmer	Medium Farmer	Large Farmer
a) Yield per acre in Kg	11250	11346	11944
b) Price received by the grower/Kg	12.40	13.74	14.14
c) Revenue per acre in Rupees	139500	155894	168888
d) Marketing costs incurred in Rupees			
i. Labor	11813	11346	10750
ii. Packaging	14850	14183	14234
iii. Transportation	7875	8510	8719
iv. Commission	11236	12517	13538
v. Miscellaneous	1463	1135	1075
e) Total Marketing Costs in Rupees	47237	47691	48316
f) Total marketing cost in Rupees /Kg	4.19	4.20	4.04
g) Net price received in Rupees /Kg	8.20	9.53	10.09
h) Consumer's purchase price in Rupees /Kg	19	19	19
i) Producer's share in the consumer rupee	0.43	0.50	0.53
	43%	50%	53%

Source: Field Survey

TABLE 8
Producer's Share in the Consumer Rupee of the Respondents for Pomegranates

Category of Farmer Particulars	Small Farmer	Medium Farmer	Large Farmer
a) Yield per acre in Kg	4784	6193	7156
b) Price received by the growers/Kg	10.91	11.93	12.34
c) Revenue per acre in Rupees	52193	73882	88305
d) Marketing costs incurred Rupees			
i. Labor	3349	4025	4652

ii. Packaging	2536	2911	3363
iii. Transportation	3588	4954	5510
iv. Commission	4171	5918	7059
v. Miscellaneous	622	805	644
e) Total Marketing Costs in Rupees	14266	18613	21228
f) Total marketing cost in Rupees /Kg	2.98	3.00	2.96
g) Net price received in Rupees/Kg	7.92	8.924	9.37
h) Consumer's purchase price in Rupees/Kg	18	18	18
i) Producer's share in the consumer rupee	0.44	0.49	0.52
	44%	49%	52%

Source: Field Survey

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