

APPLE FARMING IN HIMACHAL PRADESH: AN ASSESSMENT OF MARKETING PROBLEMS OF APPLE GROWERS

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Abstract

Apple is one of the most important fruit crops of Himachal Pradesh, which constitutes about 49 per cent of the total area under fruit crops and about 85 per cent of the total fruit production. The present paper is an attempt to find the problems faced in the supply chain of apple and to examine the problems faced by the apple growers in getting proper market information. The study was conducted in Shimla and Kullu district of Himachal Pradesh. The study reveals that the apple grower faces many problems in the supply chain of apple, transportation of apple and getting marketing information

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I. Introduction

Agriculture is the main occupation of the people of Himachal Pradesh and has an important place in the economy of the State. Himachal Pradesh is the only State in the country whose 89.96 per cent population (Census 2011) lives in rural areas. Therefore, dependency on Agriculture/Horticulture is eminent as it provides direct employment to about 62 per cent of total workers of the State. Agriculture happens to be the premier source of the State Income (GSDP). About 10 per cent of the total GSDP comes from agriculture and its allied sectors.

Apple is so far the most important fruit crop of Himachal Pradesh, which constitutes about 49 per cent of the total area under fruit crops and about

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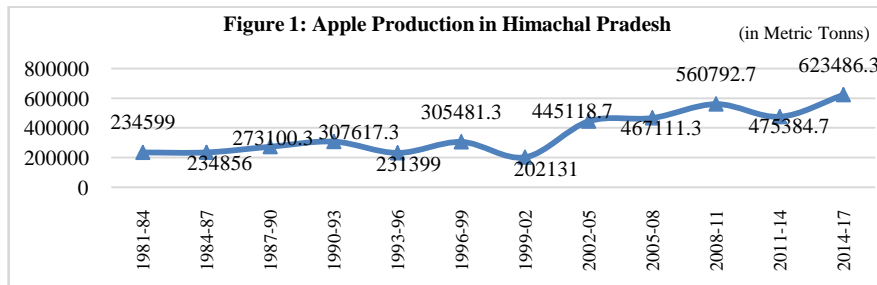
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85 per cent of the total fruit production. In apple growing, there are three major concern areas, namely, production, marketing and finance. These three areas affect the income of apple growers. Hence, an attempt has been made to examine the problems faced by the apple growers with respect to marketing of apple.

The rich diversity of agro-climatic conditions topographical variations and altitudinal differences coupled with fertile deep and well drained soils favour the cultivation of temperate to sub-tropical fruits in Himachal. The region is also suitable for cultivation of ancillary horticultural produce like flowers, mushroom, honey and hops. This particular suitability of Himachal has resulted in shifting of land use pattern from agriculture to fruit crops in the past few decades. The area under fruits, which was 702 hectares in 1950-51 with a total production of 1200 tonnes increased to 2,29,202 hectares during 2016-17. The total fruit production in 2016-17 was 6.12 lakh tones, while during 2017-18 (up to December 2107) has been reported as 5.00 lakh tones (Economics and Statistics Department, 2018).

II. Production Of Apple In Himachal Pradesh

Apple production is commercial in nature as almost the entire harvest is sold. Thus, the prospects of increased production depend upon the prospects of markets. As productivity increased, it gave rise to several marketing problems; viz., shortage of trained graders, unavailability of good packaging material, lack of adequate storage and processing facilities, high cost of marketing, manipulation by middlemen, problems of untimely and inefficient mode of transportation, etc. (Azad, Swarup, & Sikka, 1988).



Source: Basic Data obtained from the Department of Horticulture, Government of Himachal Pradesh, Shimla

The trienniums average of apple production has been presented shown in Figure 1. The output of apple has increased over the period of time. During 1981-84 the total production of apple was 234599 MT which increased to 3307617.30 MT in 1990-93. Then it decreased to 231399 MT during 1993-96 and again increased to 305481.30 during 1996-99. After this it again decreased to 202131 MT during 1999-2002. After this the production shows an increasing trend, except 2011-14, and increased to 623486.30 MT during 2014-17.

III. Objectives and Methodology

Keeping in view the importance of apple production in Himachal Pradesh, it is important to find out the problems faced by the apple growers in the state. The objectives of the present study is a) To find the problems faced in the supply chain of apple in Himachal Pradesh, 2) To examine the problems faced by the apple growers of the in getting proper market information.

Primary data have been collected from the sample respondents and to collection of relevant first-hand data in the present study multistage random-cum-purposive sampling method was used. At the first stage, two districts were selected purposively. These districts were selected on the basis of highest production and highest area under apple farming. The two selected districts were Shimla and Kullu. At the second stage four tehsils, two from each district were selected. The selection of tehsils was made on the basis of the highest apple production. At the third stage, 20 villages, five from each tehsil, were selected purposively. At the fourth stage, 200 respondents (apple growers) were selected. It is to mention that while selecting the final respondents due consideration was given to the place (s) which has highest production of apple and highest density of tree/plants.

IV. Result and Discussion

a) Problem in Transportation of Apple

Fast transportation of apple with minimum damage is very important in successful marketing. Efficient transport system not only helps in reducing the post-harvest loss of apple but also in stabilizing the price

fluctuation of the apple available in different corners of the country. In Himachal Pradesh, the transportation of apple is done mainly through road using jeeps, tempo and trucks. Road connectivity, fair transport charges and all-weather roads are required for quick and fast transportation. The status of these has been inquired from the sample respondents and has been analyzed as below.

Table 1: Non-Availability of Vehicle in Time

Response	Tehsil				Total
	Jubbal	Kotkhai	Manali	Kullu	
Strongly disagree	1 (2.00)	0 (0.00)	2 (4.00)	3 (6.00)	6 (3.00)
Disagree	35 (70.00)	47 (94.00)	42 (84.00)	32 (64.00)	156 (78.00)
Undecided	0 (0.00)	0 (0.00)	2 (4.00)	2 (4.00)	4 (2.00)
Agree	6 (12.00)	3 (6.00)	2 (4.00)	12 (24.00)	23 (11.50)
Strongly agree	8 (16.00)	0 (0.00)	2 (4.00)	1 (2.00)	11 (5.50)
Total	50 (100.00)	50 (100.00)	50 (100.00)	50 (100.00)	200 (100.00)

Note: Figures in parentheses represents percentage.

Source: Data collected from sample respondents through field survey.

Data in Table 1 depict that 70.00 per cent of respondents in Jubbal, 94.00 per cent in Kotkhai, 84.00 per cent in Manali and 64.00 per cent in Kullu tehsil disagreed that vehicle was not available in time. Whereas, 28.00 per cent of the respondent in Jubbal and 26.00 per cent of respondents in Kullu tehsil were either agreed or strongly agreed with the statement.

Therefore, it was found that in 78.00 per cent of cases the apple growers were getting a vehicle for transportation of apple in time. But the percentage of those who didn't get the vehicle in time cannot be ignored. It indicates that about 17.00 per cent of cases there was of the problem of non-availability of the vehicle in time.

b) Road Connectivity

For the better transport facility, it is necessary that each and every village must be connected with roads. Himachal Pradesh is a hilly state and villages are at high altitude, moreover, apple is grown mostly at high altitude. To transport the apple from these altitudes, road connectivity is a must. To know the status of road connectivity, data have been collected and shown in Table 2, which illicit that majority of respondents in all the tehsil opined that the road connectivity was not good. The highest percentage of those respondents who were disagreed with the statement that the villages are connected with the metaled road was found in Kotkhai tehsil (94.00 per cent) followed by Manali tehsil (84.00 per cent).

Table 2: Villages are connected with Metaled Road

Response	Tehsil				Total
	Jubbal	Kotkhai	Manali	Kullu	
Strongly disagree	8 (16.00)	0 (0.00)	1 (2.00)	1 (2.00)	10 (5.00)
Disagree	28 (56.00)	47 (94.00)	42 (84.00)	31 (62.00)	148 (74.00)
Undecided	1 (2.00)	1 (2.00)	4 (8.00)	4 (8.00)	10 (5.00)
Agree	3 (6.00)	2 (4.00)	1 (2.00)	8 (16.00)	14 (7.00)
Strongly agree	10 (20.00)	0 (0.00)	2 (4.00)	6 (12.00)	18 (9.00)
Total	50 (100.00)	50 (100.00)	50 (100.00)	50 (100.00)	200 (100.00)

Note: Figures in parentheses represents percentage.

Source: Same as mentioned in Table 1.

In overall 74.00 per cent of respondents were disagreed with the statement that villages are connected with the metaled road. It reveals that though road connectivity was there, but the condition of the road was very poor. It creates a problem of transportation of apple in good condition.

c) High Transportation Charges

High transportation charges may lead to an increase in the expenses of apple growers and minimize their income. Data regarding high transportation charges have been analyzed in Table 3. The high transportation charges, the figures in Table show that out of total respondents, 38.00 per cent of respondents in Jubbal tehsil, 42.00 per cent of respondents Kotkhai tehsil, 10.00 per cent in Manali and 14.00 per cent in Kullu tehsil were agreed, while 36.00 per cent in Jubbal, 8.00 per cent in Kotkhai, 4.00 per cent in Manali and 30.00 per cent in Kullu tehsil were strongly agreed with the statement. On the other hand, 26.00 per cent in Jubbal, 44.00 per cent in Kotkhai, 78.00 per cent in Manali and 48.00 per cent of respondents in Kullu tehsil disagreed that transportation charges are very high.

Table 3: Opinion about High Transportation Charges

Response	Tehsil				Total
	Jubbal	Kotkhai	Manali	Kullu	
Strongly disagree	0 (0.00)	0 (0.00)	3 (6.00)	0 (0.00)	3 (1.50)
Disagree	13 (26.00)	22 (44.00)	39 (78.00)	24 (48.00)	98 (49.00)
Undecided	0 (0.00)	3 (6.00)	1 (2.00)	4 (8.00)	8 (4.00)
Agree	19 (38.00)	21 (42.00)	5 (10.00)	7 (14.00)	52 (26.00)
Strongly agree	18 (36.00)	4 (8.00)	2 (4.00)	15 (30.00)	39 (19.50)
Total	50 (100.00)	50 (100.00)	50 (100.00)	50 (100.00)	200 (100.00)

Note: Figures in parentheses represents percentage.

Source: Same as mentioned in Table 1.

Hence, it can be concluded that the problem of high transportation charges was there in the study area. Apple growers have to pay high charges for the transportation of their product, which increases the cost of apple and minimizes the income of apple growers.

Market intelligence refers to the knowledge about price trends, demand and supply trends etc. there are different sources of market intelligence prevailing in the market like newspaper, radio, television, internet, gram panchayat and agents. The respondents were asked about the source of market intelligence and whether they got the proper information or not. The collected data have been enumerated in Table 4. Data reveal that the most important source of market intelligence was an agent. Out of total respondents, 91.00 per cent of respondents opined that they get information about the market through agents.

Table 4: Source of Market Intelligence

Responses	Tehsil				Total
	Jubbal	Kotkhai	Manali	Kullu	
Newspaper	2 (4.00)	0 (0.00)	2 (4.00)	0 (0.00)	4 (2.00)
Television	1 (2.00)	0 (0.00)	0 (0.00)	1 (2.00)	2 (1.00)
Internet	6 (12.00)	2 (4.00)	3 (6.00)	1 (2.00)	12 (6.00)
Agents	41 (82.00)	48 (96.00)	45 (90.00)	48 (96.00)	182 (91.00)
Total	50 (100.00)	50 (100.00)	50 (100.00)	50 (100.00)	200 (100.00)

Note: Figures in parentheses represents percentage.

Source: Same as mentioned in Table 1.

The table clearly indicates that agents play an important role in market intelligence. They provide all the information related to prices, demand and supply of apple to the apple growers.

d) Opinion about Delay in Information

Timely information about the prevailing prices, demand and supply is necessary for the marketing of apple. In this regard, data have been collected from the sample respondents and presented in Table 5 reveal that out of total respondents, 64.00 per cent of respondents in Jubbal tehsil, 86.00 per cent in Kotkhai tehsil, 90.00 per cent in Manali tehsil and

60.00 per cent of respondents in Kullu tehsil disagreed that there was a delay in information. Whereas 18.00 per cent in Jubbal, 12.00 per cent in Kotkhai tehsil, 6.00 per cent in Manali and 30.00 per cent in Kullu tehsil were either agreed or strongly agreed that there was a delay in information.

Table 5: Opinion about Delay in Information

Responses	Tehsil				Total
	Jubbal	Kotkhai	Manali	Kullu	
Strongly disagree	7 (14.00)	0 (0.00)	0 (0.00)	1 (2.00)	8 (4.00)
Disagree	32 (64.00)	43 (86.00)	45 (90.00)	30 (60.00)	150 (75.00)
Undecided	2 (4.00)	1 (2.00)	2 (4.00)	4 (8.00)	9 (4.50)
Agree	3 (6.00)	6 (12.00)	1 (2.00)	9 (18.00)	19 (9.50)
Strongly agree	6 (12.00)	0 (0.00)	2 (4.00)	6 (12.00)	14 (7.00)
Total	50 (100.00)	50 (100.00)	50 (100.00)	50 (100.00)	200 (100.00)

Note: Figures in parentheses represents percentage.

Source: Same as mentioned in Table 1.

Hence, it can be concluded that three fourth of respondents were not supported the statement that there was a delay in information. They told that they got all the information about the market well in time.

e) Inadequate Information

For effective and productive marketing, it is important that apple growers should get adequate information about the market. Therefore, data have been collected in this regard and depicted in Table 6, which reveals that the majority of respondents disagreed that they got inadequate information from the source. The highest percentage of disagreement was found in Manali tehsil (76.00 per cent) followed by Kotkhai tehsil (64.00 per cent). The data reveal that if there was any inadequate information about prices. 36.00 per-cent respondents in Jubbal Tehsil, 64.00 per-cent

in Kotkhai, 76.00 per-cent in Manali, 52.00 per-cent in Kullu and 57.00 per-cent in overall disagreed about inadequate information.

While 30.00 per-cent in Jubbal, 24.00 per-cent in Kotkhai, 16.00 per-cent in Manali, 14.00 per-cent in Kullu and 21.00 per-cent in overall agreed that information given to them was inadequate. And 11.00 per-cent in overall were strongly agreed that information was inadequate. It can be concluded that about half of the respondents were found proper information about the market but others were not agreed to the adequate information.

Table 6: Opinion about Inadequate Information

Responses	Tehsil				Total
	Jubbal	Kotkhai	Manali	Kullu	
Strongly disagree	5 (10.00)	0 (0.00)	0 (0.00)	1 (2.00)	6 (3.00)
Disagree	18 (36.00)	32 (64.00)	38 (76.00)	26 (52.00)	114 (57.00)
Undecided	3 (6.00)	2 (4.00)	3 (6.00)	8 (16.00)	16 (8.00)
Agree	15 (30.00)	12 (24.00)	8 (16.00)	7 (14.00)	42 (21.00)
Strongly agree	9 (18.00)	4 (8.00)	1 (2.00)	8 (16.00)	22 (11.00)
Total	50 (100.00)	50 (100.00)	50 (100.00)	50 (100.00)	200 (100.00)

Note: Figures in parentheses represents percentage.

Source: Same as mentioned in Table 1.

f) Misleading Information

Misleading information about the market may lead to confusion in the minds of apple growers. Hence, the data about misleading information have been collected from the sample respondents and shown in Table 7, which indicates that out of total respondents, 55.00 per cent of respondents disagreed that they got misleading information from their sources. While 31.50 per cent were agreed that they were getting misleading information about the market. Tehsil-wise data reveals that

majority of respondents in Kotkhai (60.00 per cent), Manali (72.00 per cent) and Kullu (52.00) tehsil were disagreed with this, while in Jubbal tehsil majority of respondents were either agreed (36.00 per cent) or strongly agreed that they got misleading information.

Table 7: Misleading Information

Responses	Tehsil				Total
	Jubbal	Kotkhai	Manali	Kullu	
Strongly disagree	5 (10.00)	0 (0.00)	0 (0.00)	1 (2.00)	6 (3.00)
Disagree	18 (36.00)	30 (60.00)	36 (72.00)	26 (52.00)	110 (55.00)
Undecided	1 (2.00)	0 (0.00)	1 (2.00)	5 (10.00)	7 (3.50)
Agree	18 (36.00)	18 (36.00)	12 (24.00)	15 (30.00)	63 (31.50)
Strongly agree	8 (16.00)	2 (4.00)	1 (2.00)	3 (6.00)	14 (7.00)
Total	50 (100.00)	50 (100.00)	50 (100.00)	50 (100.00)	200 (100.00)

Note: Figures in parentheses represents percentage.

Source: Same as mentioned in Table 1.

Hence, it can be concluded that though 55.00 per cent of respondents disagreed, about 39 per cent of respondents were either agreed or strongly agreed that they were getting misleading information about the market. This reflects that the apple growers were given misleading information by their sources of market intelligence in the study area.

Conclusion

It can be concluded from the above analysis that farmers are facing problems in supply chain/ marketing of apple, as well as getting proper market information. Due to this apple growers are not able to sell their crop well in time. On the other hand, farmers are not able to get proper market information. It is recommended that the proper connectivity throughout the year, especially in apple season must be ensured. The mechanism must be developed to give proper and timely information to

the apple growers. These efforts will not only ensure proper reward to the apple crop but will also help in the development of the state.

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