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STUDY ON MARKETING AND POST HARVEST OF APPLE IN SHIMLA DISTRICT OF HIMACHAL PRADESH

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Abstract

The project, entitled Study on Marketing and Post Harvest of Apple In Shimla District of Himachal Pradesh was carried out in the Shimla district of Himachal Pradesh. A total of 120 sample respondents were selected from study area. The information was collected from the sample area. The data collected was subjected to analysis for the purpose of examining the objectives of the investigation.

The present study is based on primary data and the overall objective of the study was to access the socio-economic profile of the respondents in the study area. To study marketing share, marketing efficiency, marketing cost, market margins and producer share in consumer rupees. To study the marketing of apple fruit in study area. To identify constraints faced by the respondents and suggest suitable measures. For present study both primary and secondary data was used. Result of the study revealed that out of total respondents' major number falls under the age group of 30-50 years that is 66 respondents, and it was found land holding has a direction relation between the income level of the respondents and also the education level.

Keywords: Marketing, Respondents, Apple, Shimla.

INTRODUCTION

Apple is a temperate fruit adopted to the temperate zone of latitude varying between 35-50 degree. It consists of various biologically active compounds and certain phenolic compounds that are recognized to act as antioxidants. Apple is the world's most important temperate fruit and also in India's north-western Himalayan region. It's been a stable fresh fruit in temperate parts of the world for a long time. It is regarded as one of the most delicious fruits, appreciated for its crispness because it has high nutraceutical value., mainly because it is a rich source of antioxidants and has high fiber content, the old proverb "an apple a day keeps the doctor away" focuses on its significance in the human diet. Although it is a popular table fruit, it can also be canned in several varieties or can be used for the production of juice, wine, vinegar, and cider.

Apple was introduced into the country by the British in the Kullu Valley of the Himalayan State of Himachal Pradesh as far back as 1865. First commercial cultivation of apple was done in Kullu valley of Himachal Pradesh in 1870. The fruit culture in Kashmir valley dates back to the times of King Nara (1000 BC), King Lalit Aditya (700AD) and Harsha (1089 AD), while the coloured delicious cultivars of apple were introduced to Shimla Hills of the same State in 1917. During the British Raj, English officers introduced strains of the English sour apples to India, but these were not popular because of their taste. The real beginning of apple production in India was in the early 20th century when Samuel Evans Stokes of Philadelphia landed in India, originally to join the Leprosy Mission of India.

Apple is known for its medicinal value from time immemorial. Its medicinal value is attributed to its protein content, a natural therapeutic ingredient found in its skin and pulp which aids in detoxification by supplying galacturonic acid it contains approximately 86% moisture, 14.5% carbohydrates, 0.3% proteins.

Apple Marketing

Studying the marketing of apple fruit in Himachal Pradesh involves understanding various aspects of the apple industry in the region, including production, distribution, pricing, and promotion. Here are some key points to consider:

Apple production in Himachal Pradesh: Himachal Pradesh is known for its high-quality apple production. Understand the major apple- growing regions, cultivation practices, and varieties of apple grown in the state.

Market analysis: Analyse the market demand for apples in Himachal Pradesh. Identify the target market segments, including wholesalers, retailers, exporters, and consumers.

Supply chain and Distribution: Study the distribution channels involved in the apple market. Identify the intermediaries, such as wholesalers, commission agent and retailers, and understand their roles in the supply chain.

Pricing strategies: Explore the pricing mechanisms followed in the apple market. Analyse factors that influence apple price, such as quality, grade, size, variety, seasonality, and market demand.

Market Promotion: Examine the marketing and promotional activities undertaken to promote Himachal apples. This can include branding initiatives, advertising campaigns, participation in trade fairs and exhibitions, online marketing and other promotional strategies employed by farmers, cooperatives and the government.

Stakeholder Engagement: Engage with various stakeholder involved in the apple industry, such as farmers, orchard owners, cooperatives, government officials, industry associations exporters, and retailers.

Market Research and Data Analysis: Conduct primary and secondary market research to gather relevant data on apple production, market size, consumer preferences, and trends.

Post- harvest management of apple:

Precooling

After picking, the fruit should be placed in a cool and ventilated place to remove field heat before packing. Air cooler, cold water, sprinkling or fruits washing with water also help quick removal of field heat.

Grading

Apple are graded according to fruit size and fruit appearance or quality. On the basis of fruit size, apples are graded manually in 6 grades. On the basis of fruit colour, shape, quality and appearance.

Packaging

Apples are packed in wooden boxes. Size of the wooden boxes used in different apple- growing areas of India is different carry about 10kg or 20kg fruits in a box. Standard- size wooden boxes are 45.7 cm long, 30.5 cm wide, and 25.4, 27.5 and 30.5 cm in height according to size of grade. Corrugated- fiber board (CFB) cartons are also available for packing apples. Such cartons are of two types universal cartons and telescopic tray-pack cartons. The CFB cartons not only save the precious wood and forest wealth but result in very less fruit bruising which fetch good market price.

Storage

Apples have a longer storage life as compared to other fruits. However, different varieties have different storability. Deterioration of fruits starts after climacteric stage. However, shelf-life of apples can be prolonged by providing optimal storage conditions. The cold storage retards fruit deterioration and reduces decay from pathogens and shriveling from water loss. The recommended storage temperature for apple fruit is -1.1 to 0 degree Celsius which is about 0.8-1.8 C above the average freezing point of most apple varieties. The relative

humidity of 85-90% should be maintained in cold storages. Most apple varieties can be stored for 4-8 months after harvesting. Ambri has the longest storage life.

RESEARCH METHODOLOGY:

To study entitled, To access the socio-economic profile of respondents in the study area, Was undertaken to access the study on marketing and post-harvest of apple in Shimla district of Himachal Pradesh.

The present study was mainly based on primary data. The required Primary data was collected by survey method followed by personal interview with youth and farmers in the study area. Primary data were collected through pre-structure questionnaires from apple growers for the agricultural year 2021-2022, the required Secondary data was collected through various sources like, agriculture officers, website, internet and other sources etc. The marketing and post- harvest of apple were identified through personal interview and market survey, for achieving the stated objective, the analytical tool such as tables, figures, simple ranking, percentage method were used. Multistage stratified random sampling procedure were adopted for the present investigation to select the ultimate unit of the sample.

From the selected village list of the apple growers obtained from the village development office each selected village. For the selection of cultivators from families were listed about 5 percent farmers were randomly selected. The study was entirely based on primary data collected from the selected farmers and different market functionaries. Well-constructed and pre-tested questionnaire and scheduled (appendix) were used to collect data on marketing. For collecting the data, personal interviews were arranged and reconnaissance study were also conducted to collect the data regarding quality, price, packaging etc. from growers, different market functionaries and Asmoli growers. Further the required secondary data to supplement the primary data and to support the study were collected from different sources like block office and district office, relevant magazines and internet etc.

Study Design and Place of the study

Simple random sampling procedure was adopted for the present investigation to select the ultimate unit of the sample. Shimla district was selected purposively for the present study on the basis of large area of apple orchards.

RESULTS AND DISCUSSION

The study entitled, To access the socio-economic profile of respondents in the study area. Socio-economic status is the measure of economic and social prospects of the individuals. It indicates the social position of an individual with respect gender, education, income, occupation. In order to examine the socio-economic characteristics of the respondents, seven indicators, viz. age, gender, education, marital status, types of family, occupation and monthly income are considered and they are given below:

Age wise distribution of farmers.

Table-1.1: Detail of sample size of age in various farm size group.

Age of respondents	Marginal Farmers	Small Farmers	Semi-medium Farmers	Medium Farmers	Large Farmers	Overall	Percentage
20-30	5 (5.84)	4 (5)	3 (4.17)	6 (3.34)	2 (1.67)	20	16.67
30-40	10 (9.62)	6 (8.25)	10 (6.87)	3 (5.5)	4 (2.75)	33	27.5
40-50	12 (9.63)	10 (8.25)	5 (6.87)	4 (5.5)	2 (2.75)	33	27.5
50-60	3 (5.25)	5 (4.5)	4 (3.75)	5 (3)	1 (1.5)	18	15
60 & above	5 (4.66)	5 (4)	3 (3.34)	2 (2.66)	1 (1.33)	16	13.33
Total	35	30	25	20	10	120	100

Source: Survey Data

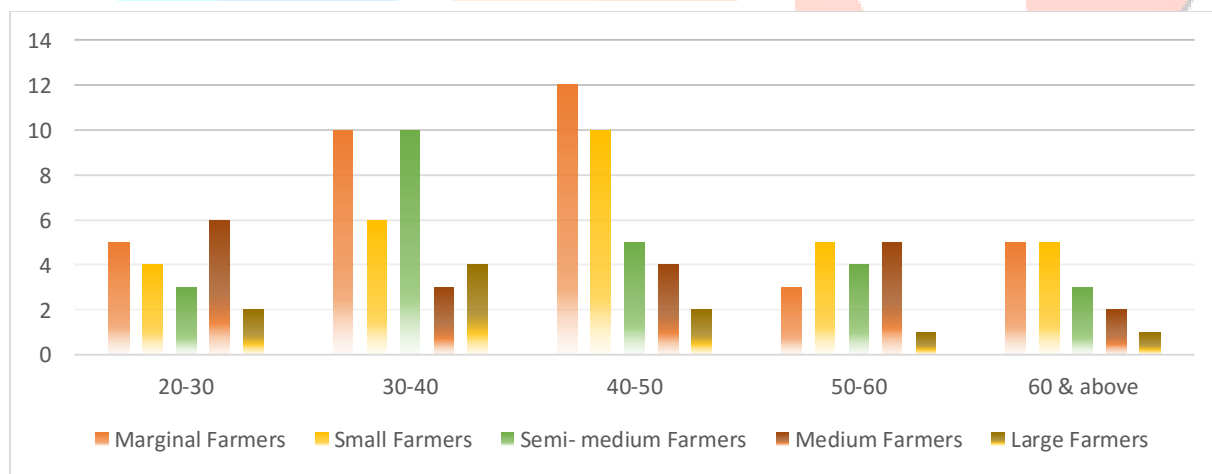


Figure-1.1:

Distribution of farmer based on age

The table-1.1 and figure-1.1 shows the age of respondents. It is seen that more than half of the respondents (55 percent) belongs to the age group of (30-50). It also reveals that (16 percent) belongs to the age group of (20-30), followed by (15 percent) respondents who belongs to the age of over 50 years. Only few people (13 percent) are 60 and above.

Gender of the respondents:

Table 1.2: Detail sample of gender of respondents.

Gender of respondents	Marginal Farmers	Small Farmers	Semi-medium Farmers	Medium Farmers	Large Farmers	Overall	Percentage
Male	25 (27.13)	22 (23.25)	18 (19.38)	18 (15.5)	10 (7.75)	93	77.5
Female	10 (7.87)	8 (6.75)	7 (5.62)	2 (4.5)	0 (2.25)	27	22.5
Total	35	30	25	20	10	120	100

Source: Survey Data

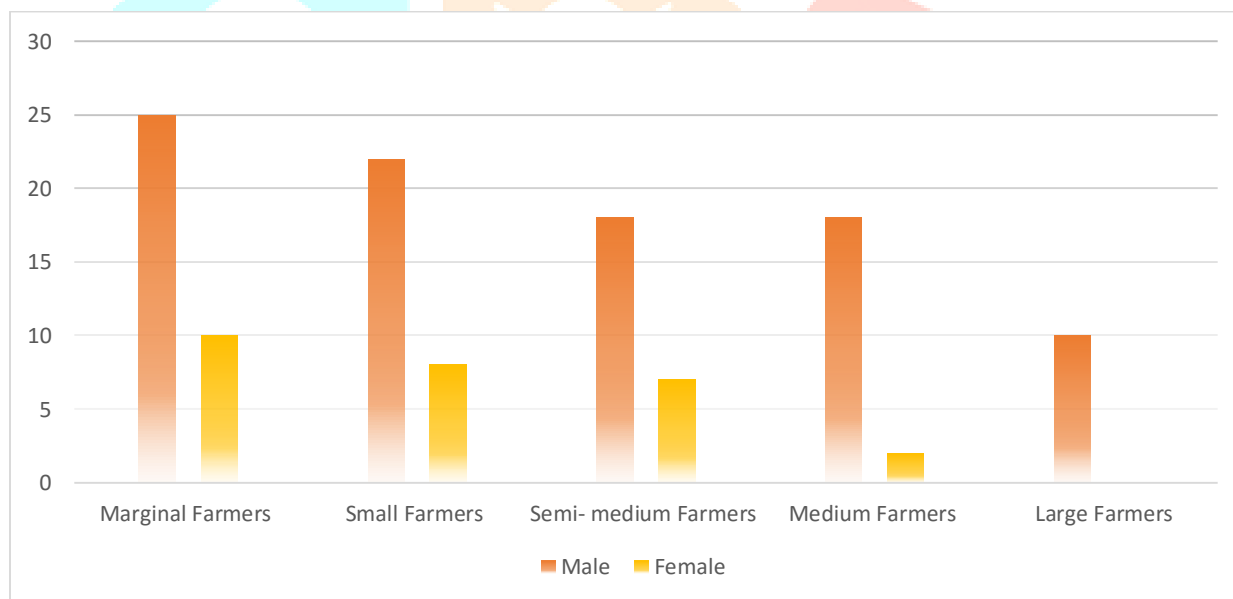


Figure- 1.2: Distribution of respondents based on gender

The table-1.2 and figure-1.2 shows the gender of respondents. It is notices that majority of respondents are male (77.5 percent).

Income of Respondents:

Table-1.3: Detail sample of income of respondents

Annual Income (₹)	Marginal Farmers	Small Farmers	Semi-medium Farmers	Medium Farmers	Large Farmers	Overall	Percentage
Up to 100000	25 (13.13)	13 (11.25)	4 (9.38)	3 (7.50)	0 (3.75)	45	37.5
100000-200000	5 (5.83)	10 (5.00)	3 (4.17)	2 (3.33)	0 (1.67)	20	16.67
200000-300000	4 (8.17)	5 (7.00)	12 (5.83)	7 (4.67)	0 (2.33)	28	23.33
300000-400000	1 (4.96)	1 (4.25)	5 (3.54)	6 (2.83)	4 (1.42)	17	14.16
400000 & above	0 (2.92)	1 (2.50)	1 (2.08)	2 (1.67)	6 (0.83)	10	8.34
Total	35	30	25	20	10	120	100

Source: Survey Data



Figure-

1.3: Distribution of respondents based on Annual Income

The table-1.3 and figure-1.3 shows the annual income of the respondents. It is observed that approx. 37 percent respondents have income up to 1 lakh. There are about 23 percent respondents having income 2-3 lakhs, followed

by 16 percent respondents having income 1-2 lakhs and 14 percent respondents having income 3-4 lakhs. Only 8 percent respondents having income up to 4 lakhs and above.

Education Level of Respondents:

Table-1.4: Detail sample of education level of respondents.

Education Level	Marginal Farmers	Small Farmers	Semi-medium Farmers	Medium Farmers	Large Farmers	Overall	Percentage
Illiterate	15 (12.25)	13 (10.50)	8 (8.75)	5 (7.00)	1 (3.50)	42	35
Up to High school	12 (11.38)	12 (9.75)	6 (8.13)	6 (6.50)	3 (3.25)	39	32.5
Up to Intermediate	7 (7.88)	5 (6.75)	6 (5.63)	7 (4.50)	2 (2.25)	27	22.5
Graduation	1 (3.50)	0 (3.00)	5 (2.50)	2 (2.00)	4 (1.00)	12	10
Total	35	30	25	20	10	120	100

Source: Survey Data

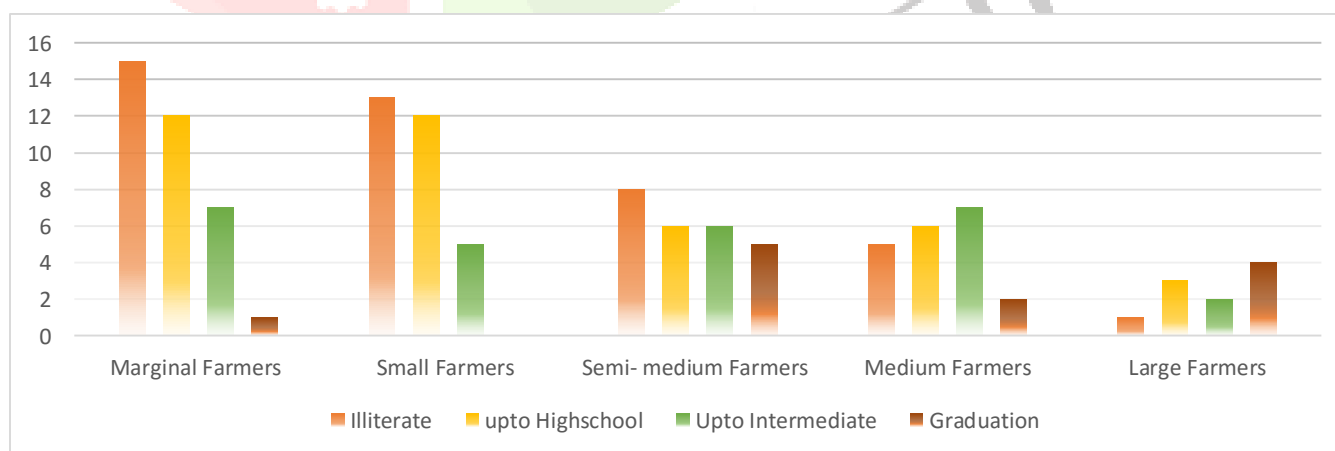


Figure-1.4: Distribution of respondents based on Education Level

The table-1.4 and figure-1.4 shown the education qualification of the respondents. It is observed that 35 percent respondents are illiterate and 32 percent are up to high school. There are about 22 percent of the respondents who have educational qualification up to intermediate. The respondents having educational qualification up to graduation are 10 percent.

Conclusion:

The marketing of apple fruit in Himachal Pradesh requires a holistic approach, addressing various aspects of production, distribution, pricing, and promotion. By improving infrastructure, enhancing market information systems, implementing standardized quality control measures, and investing in branding and promotional activities.

Collaboration among apple growers, market intermediaries, government bodies, and industry associations is vital for implementing these recommendations. Additionally continuous research, data analysis and monitoring of market trends are essential to adapt marketing strategies to evolving consumer preference and market dynamics. With effective marketing practices in place, Himachal Pradesh can further strengthen its position as a leading producer of high quality apples. Capture new markets, ensure fair returns for growers, and contributes to the overall growth and sustainability of the apple fruit in the region.

Reference

- Bera, G. (2015).** An assessment of apple cultivation in Kalpa, Kinnaur district, Himachal Pradesh. *IOSR Journal of Humanities and Social Science*, 20, 20.
- Chauhan, G. S., Rathi, R., and Deore, K. (2019).** Effectiveness of Advertising Viewability in Digital Ecosystem: How to Get the Best Out of the Money We Invest! *Interdisciplinarity: Vignettes of Contemporary Education, Knowledge and Research (2019)*, Bloomsbury Publishing India Ltd., New Delhi.
- Devadoss*, S., and Wahl, T. (2004).** Welfare impacts of Indian apple trade policies. *Applied Economics*, 36(12), 1289-1294.
- Gayak, B., Pandey, S. R., and Bhatta, S. (2020).** Economics of production and marketing of apple (*Malus domestica*) in Mustang, Nepal. *International Journal of Agriculture Environment and Food Sciences*, 4(4), 483-492.
- Gallardo, R. K., Grant, K., Brown, D. J., McFerson, J. R., Lewis, K. M., Einhorn, T., and Sazo, M. M. (2019).** Perceptions of precision agriculture technologies in the US fresh apple industry. *HortTechnology*, 29(2), 151-162.
- OSMANI, M. (2021).** Investigation into Technical Efficiency of the Agriculture Sector in the Balkan Region. *Journal of Economy and Agribusiness*, 14(1).
- Osmani, M., and Kambo, A. (2019).** Small-scale apple farmers' willingness to invest-the case of Korca region farmers in Albania. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, 67(1), 309-323.
- Parrey, S. H., and Hakeem, I. A. (2015).** Exploring marketing activities of apple growers: empirical evidence from Kashmir. *Pacific Business Review International*, 7(12), 73-74.

Sahu, N., Saini, A., Behera, S. K., Sayama, T., Sahu, L., Nguyen, V. T. V., and Takara, K. (2020). Why apple orchards are shifting to the higher altitudes of the Himalayas? *PLoS One*, 15(7), e0235041.

Sharma, A., Jain, A., Gupta, P., and Chowdary, V. (2020). Machine learning applications for precision agriculture: A comprehensive review. *IEEE Access*, 9, 4843-4873.

Sharma, M., and Kumar, V. (2018). Apple farming in Himachal Pradesh: an assessment of marketing problems of Apple growers. *Administrative Development: A Journal of HIPA, Shimla*, 2, 13-24.

Yasmin, B., Roy, A., Mandal, M. H., Siddique, G., and Ghosh, S. (2023). Challenges and Prospects of Apple Cultivation in Himachal Pradesh. *Space and Culture, India*, 10(4), 52-67.

