APPLE PRODUCTION AND MARKETING FACILITIES PROVIDED BY THE GOVERNMENT IN HIMACHAL PRADESH

Kiran Chanda* & Kulbhushan Chandel†

Abstract

The economy of Himachal Pradesh is totally agrarian. The majority of people living in Himachal Pradesh are dependent on agriculture or horticulture and allied sector. The government of Himachal Pradesh is striving to improve the economic and social condition of its inhabitants through the development of horticulture in the state. For that purpose, government has launched various schemes and providing various subsidies to the farmers. These include, most importantly, diversity in agro-climatic conditions, possibilities to produce for 'off-season' markets, relative high education of producers, and a location relatively close to terminal consumer markets. The state's agriculture is dominated by high value horticulture commodities, which account for about 44 percent of the cropped area and contribute about 48 percent of agricultural gross state domestic product. The state has emerged as a leading producer of fruits and off season vegetables. The Horticulture sector annually contributes INR 63,000 million (US\$ 1051 million) to the state economy, which is about 7 percent of the GSDP. The Horticulture in HP has been responsible for many of the positive outcomes in employment, wages, and in turn, poverty reduction. Notwithstanding, the significant potential of horticulture production in HP, state faces a number of sectoral, institutional, marketing challenges in domestic markets and it is opened to international trade also. The focus of present research paper is to analyse the marketing facilities provided by Himachal Government.

Key words: Apple, Marketing Facilities, Government Policies.

^{*}Assistant Professor Maharaja Agrasen University Baddi, Solan, H.P †Dean Academics HPTU Hamirpur, Himachal Pradesh

Introduction

Marketing strategy is the complete and unbeatable plan, designed especially for attaining the marketing objectives of the firm. The marketing objectives indicate what the firm wants to achieve, the marketing strategy provides the design for achieving them. The marketing plan is the central instrument for directing and coordinating the marketing efforts. The market plan operates at two levels: Strategic and tactical. The strategic marketing plan laid out the target markets and value promotion, merchandising, pricing, sales, channels and services. The marketing strategy is to achieve maximum positive competitive differentiation that is other than the rival activities to satisfy the customer needs. Marketing strategy is essentially a comprehensive plan. Planning marketing strategy is vital to minimize investment risks and to chart the future course for economic and operational expansion of the enterprise. The strategy begins and ends with the knowledge of the structure of the market, and the identification and measurement of market potentials and competitiveness. Marketing target is clearly determined within a given market area and time span, based on the design of marketing mix to achieve such objectives . Himachal Pradesh is bestowed with the rich diversity of agro-climatic conditions, topographical variations and altitudinal differences coupled with fertile, deep and well drained soil 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. Himachal is a horticulture oriented economy. The significance of horticulture in the economy of Himachal is amply born by the fact that it is by far, the largest industry in the state. Himachal grows diverse varieties of fruits from tropical to temperate which help in the economic upliftment of the rural economy by generating employment and revenue to rural population. The extraordinary progress in this field is because of the congenial agro-climatic condition of the state. The market structure of fruits is going through a lot of changes to building marketing linkages in terms of obtaining profitable market. Notwithstanding the spectacular progress on the production front, the horticulture industry in the State is largely characterized by a low level of technology, low level of productivity, low quality of the produce, improper post harvesting management and poor marketing. This has adversely affected the economics of the industry and the farmers are not getting adequate return over their investment. it also considered that the high transportation cost, lack of storage facilities, loss of productive soil through urban encroachment, low productivity, high labour cost, exploitation by middlemen climate changes, diseases in apple trees are the major problems in apple production and one of the problems which the growers of fruits is facing today will have to encounter in the future is the non availability of reasonable returns and inadequate knowledge of the market. For this the department of horticulture has equipped with market intelligence which involves a regular and continues survey of the market conditions and provides information how the various factors, which influences the market are behaving and the effect they are likely to have on the future course of price.

Reviews:

Subrahmanyam (1998) made an attempt to study" Horticulture in India: Organization of production, Marketing and processing" he revealed that the horticulture industry is facing many problems like lack of data base, unorganized marketing and lack of packing houses before the produce reaches the wholesale market. He observed that the processing industries have been developing and marketing new products to increase the domestic demand for processed products. He revealed that there has been a considerable change in the taste and preferences among various categories of people.

Dev Raj (2001) in his study on "Marketing of fruit products" found that horticulture has still remained as a backyard garden activity due to the reason that production is confined to small scattered holdings in villages' high variety diversity, high fluctuation in productivity, inadequate power at crucial periods and absence of essential link between farm and processing or export industry. The author although suggested that it was necessary to produce suitable quality raw materials for processing purpose only. He revealed better procurement and popularization of these products will helps a lot.

Shraff, S., Kajale, J. (2008) in their research paper entitled "Government intervention in horticulture development- A case of Maharashtra" reported that promotion of horticulture crops have not received any attention in

India in terms of investment. The government of Maharashtra made special attempts to promote horticulture by providing subsidy to farmers through horticulture linked EGS (Employment Guarantee Scheme) programme. But the farmers face so many problems and challenges like numbers of intermediaries involved in the marketing of produce is very large that adds to the final cost of the produce which results in low share of farmers in its terminal price. The government of India set up the National Horticulture Board for Development of Horticulture with thrust on post harvest management and marketing.

Singh, et al., (2015) in their study on "Apple cultivation in Himachal Pradesh: SWOT analysis and identified issues for the sector development- A case study" reported that apple is emerged as potential cash crop for local orchardists in the state. It is found with the help of SWOT analysis that systematic and scientific steps have to be taken to bring revolution in the methods of apple orchard management, nursery management, pest and disease management, post harvest methods and organic farming has to be carried out in coordination with apple growers and scientist at large scale. Further, it is also found that proper interaction between villagers, orchardists, horticulture department; non government organisation, universities research institute and other government agencies should be emphasized. Saxena, A.,

Hussain, M. and Singh, A. (2017) in their study on "Impect of amended APMC act on apple business in Himachal, India" reported that Indian agricultural marketing system is suffering from various problems like large number of middlemen, malpractices of traders, inadequate market information and insufficient funds etc. APMC control and regulate the selling at all regulated agricultural marketing yards. But there are lot of inefficiencies involved in APMC. But the amended APMC act prevents anticompetitive practices. It is found that now private players are allowed to procure apple from producers directly. Companies like Reliance Fresh, Godrej, Adani Agri Fresh, Mother Dairy, Fresh and healthy etc. procure apple directly and offer healthy prices to primary producers but still many apple growers in Himachal Pradesh not sell to private buyers. It is also found that direct procurement by companies was known by maximum producers. Majority of the respondents were not aware about the new patterns of

marketing after implementation of amended APMC act. The authors have mentioned four marketing channel as first one is APMC market yard, second direct procurement by companies, third private yards and fourth Apni Mandi. Among these channels growers weighted APMC marketing yard as list preferred by growers.

Singh, N., Sharma, P.L., Rana, A., Thakur, A.K & Lodhiyal, L.S. (2018) in their study on "Apple Production in Himachal Pradesh: SWOT analysis and Identified Issues for sector Development- A case study" reported that systematic and scientific steps have to be taken to bring a resolution in the methods of apple orchard management, nursery management, pest and disease management, post harvest methods and organic cultivation. Further, authors suggested that emphasis should be given on proper interaction between villagers, orchardists, Horticulture Department, government and non government agencies, universities and research agencies so that a appropriate and orchardists centric approach has to be implemented according to area specific needs and better productivity could be achieved.

Objectives of the study:

To study the marketing facilities provided by government and its awareness among growers.

Rationale of the study:

Himachal has been endowed with varied agro-climatic conditions, which provide a great scope for the apple growers. The hills of Himachal provide natural zones for production of apples. Horticulture provides new opportunities and has a vast scope in the state. Fruit production is seasonal and the produce is perishable in nature. As the apple is the main cash crop of the state growing in Shimla, Kullu and Kinnaur, etc. Shimla ranks first in horticulture production. It has occupied the significant place in horticulture sector in Himachal Pradesh followed by Kullu, and Kinnaur districts. Due to the commercialization of agriculture and horticulture in the districts people have become aware of the basic need of education. Because of less education they are not aware about modern marketing techniques. Horticulture produce in Himachal have good marketing demand in the country. The

overall picture at the state level would conceal a wide variety of experience. The present study aims at analyzing the existing state of horticulture produce and also identifies the problems faced by the people of the district in marketing practices to improve the existing marketing strategies to the people in order to provide them basic awareness in this regard. As horticulture industry is slowly moving from traditional agriculture enterprise to corporate sector. And the further growth of horticulture industries and its sustainability will largely depends on the marketing strategies; strong supports of basic and strategic marketing research will only enable rapid growth of horticulture produce.

Scope of the study:

The present study is restricted to the three districts of Himachal Pradesh i.e. Shimla, Kullu, and Kinnaur. The district under study is selected by taking into the consideration the largest producers of horticulture produce from 2015 to 2018. The data is collected through structured questionnaire. The major thrust is given to the product strategies and pricing strategies adopted by apple growers in Himachal Pradesh

Research Methodology:

Keeping in view of the set objectives, the research design for the study is of primary and secondary nature. An emphasis is placed on gathering first hand information with the help of structured questionnaire. And secondary data from different news articles, Books and Web site were used which were enumerated and recorded. The collected data has been presented statistically with the help of three point Likert scale and zero order correlation.

Interpretation:

Marketing Facilities Provided by Government: An Analysis

The globalisation of trade with the emergence of the WTO regime has increased the competition in the market and requires restructuring and technological up- gradation of horticulture industry to remain in the business. Marketing play an important role in it and there is need to explore

the potentials of horticulture. There are certain marketing factors through which government is providing assistance to the orchardists. An attempt has been made by the researcher regarding the awareness of these marketing factors. Table 1.1 exhibits that while evaluating the post harvest management, the mean score is higher than the mean standard score at three point scale. This shows that majority of the respondents are falling towards higher side. The negative value of skewness and platykurtic behaviour of kurtosis shows that majority of responses are towards higher side. The significant value of chi square reveals that distribution is not equal. Thus, it can be concluded that the orchardists are aware about the post harvest management facilities provided by the government. Furthermore, on information regarding plucking and evaluating picking, modern environment friendly packing, the result shows that the mean score is 2.2060 and 2.4280 more than standard mean score at three point scale which means that the majority of the respondents are falling more towards higher side. The skewness value is negative which supports the mean value. Distribution pattern is platykurtic. Chi square value shows significant results at 5 percent level of significance which shows that opinion of the apple growers is not equally distributed. Therefore, the majority of the orchardists are aware about the said facilities provided by the government to them. The variables are branding & advertising and uniform grading standards were examined. The result highlighted that the mean score is (1.6200 and 1.9900) respectively is lower than the standard mean score at three point scale resulting that the majority of respondents are falling more towards lower side.

The skewness arrived as positive value also support that respondents have bent toward lower side. Further, the value of kurtosis is platykurtic. The significant chi square value again proves that the distribution is not equally distributed. The majority orchardists reported that they are not aware about the branding & advertising and uniform grading standards facilities. Furthermore the researcher examined the forward and back ward linkage, information regarding markets, transportation facilities, diversification of horticulture and the training programs for growers.

Table 1.1 Marketing Facilities Provided by Government: An Analysis

Statements	Large Extent	Some Extent	Not at all	Total	Mean	PS	Sk	Kt	χ,	P. Value
Post Harvest Management	121	291	88	500	2.0660	.64380	061	589	142.396	000
Information Regarding Plucking and Picking	188	227	85	500	2.2060	.71033	320	987	64.588	000
Modern Environment Friendly Packing	303	108	68	200	2.4280	.77590	606:-	745	168.364	000
Branding and Advertisement	06	130	280	200	1.6200	.77252	.772	806:-	120.400	000
Uniform Grading Standard	121	253	126	500	1.9900	.70348	.014	973	67.156	000
Forward and Backward Linkage	187	193	120	200	2.1340	.77281	235	-1.291	19.708	000
Information Regarding Market	267	165	89	200	2.3980	.71598	756	711	118.828	000
Transportation Facilities	276	178	46	200	2.4600	.65823	826	420	159.856	000
Diversification of Horticulture	267	168	92	200	2.4040	.70837	761	9/9:-	122.428	000
Training Programmes	318	139	43	200	2.5500	.64834	-1.139	.127	233.764	000
Total				200						

Note: Figure in parenthesis depicts percentage.

Source: Data collected through questionnaire.

The result shows that the mean score is higher than the standard mean score at three point scale (2.1340, 2.3980, 2.4600, 2.4040 and 2.5500). This means that the majority of the respondents are falling more towards higher side. The skewness value is negative which shows that responses are lying more towards higher side. Moreover, the distribution is platykurtic except in case of training programs which is leptokurtic. The chi square value is significant at 5 percent level of significance which shows distribution is not equally distributed. Thus, it can be concluded that there is a need to make orchardists aware about the marketing facilities provided by the government. Moreover, there is also a need to explore the future horticulture development potentials of the state in the most scientific and systematic manner. Therefore, the role of government policies, government support is very important in holistic development of horticulture and proper post harvest management, processing and marketing of horticulture produce. Further, the researcher extended the analysis with the help of one way ANOVA analysis. The ANOVA was performed to determine the significance under the study area. An attempt has been made to see the awareness level of the orchardists regarding various marketing facilities provided to them by the government. The perusal of table 1.2 examines the examined these marketing facilities. When examined the significance of post harvest management, it yielded significant value (p<0.05) of significance. The F value (7.345) is significant at 5 percent level of significance between the groups. This shows that the majority of growers are aware about the post harvest management facilities provided by the government. The Tuckey post hoc test was performed to identify the reason for statistically significant mean differences. The output shows that the said facility is statistically significant between Shimla with Kullu and Kullu district with shimla and Kinnnaur and Kinnaur district with Kullu district. However, the result regarding information regarding plucking and picking, modern environment friendly packing, branding and advertising, forward and backward linkage and transportation facilities are insignificant. Further, the researcher examined the awareness about the uniform grading standards. The F value arrived at 4.696 reflects the relative variability of means within the sample and is significant (p<0.05). This necessitates the application of multiple comparisons among all possible groups with Tukey post hoc test. The results

86 Apple Production And Marketing......Kiran Chanda & Kulbhushan Chandel further revealed that the mean difference between the opinions of farmers of Shimla with Kullu and Kullu with Shimla is significant.

Table 1.2 Marketing Facilities Provided by Government: An Analysis

	Descr	Descriptive					F - test	_				Tukey test	ı,	
	Distt	Mean	Std. Deviation	Std. Error	Description of Variable	Sum of	βţ	Mean Square	F	Sig.	Distt	Mean Difference	Std. Error	Sig.
	Chimle	01110	80919	03887	Between	5 030	·	0 000	7 3/15		Kullu	.16510*	80090	.017
	2	4.111.3	0.4040.	0000	Groups	0.5.0	4	2.303	+		Kinnaur	23094	.11405	.107
	Kullu	1 0469	64364	04604	Within	200 004	707	404		8	Shimla	16510*	80090	.017
		1.7400	tocto.	t-00+0.	Groups	±00.007	42	ţ,		3	Kinnaur	-39605	.11704	.002
	Vinnann	2,470	48150	06140	Total	206 822	400				Shimla	.23094	.11405	107
	Number of the latest of the la		6C10+.	0+100.	EloT	770.077	664				Kullu	.39605*	.11704	.002
	Chimle	1 1120	7,007	25070	Between	152	۰	220	153		Kullu	.00555	.06724	966
		0512.7	77007.	CC2#0.	Groups	SCT.	7	10.	701:		Kinnaur	.07014	.12765	.847
	Kullu) 2074	CVC12	05106	Within	251 670	707	\$00		050	Shimla	00555	.06724	966
		+107.7	7471/	06100.	Groups	670.107	4	8		eco.	Kinnaur	.06459	.13099	375
	Vinnenn	0.1470	72226	17206	Total	751 707	700				Shimla	07014	.12765	.847
			occes.	06671	101	701:107	Č.				Kullu	06459	.13099	375
	Chimle	2 4224	CC077	04682	Between	040	·	000	033		Kullu	00847	.07346	.993
	2	F777-7	77611.	7000	Groups	P.	4	070.	5		Kinnaur	03476	.13946	996
_	Kullu	2 4300	78113	05607	Within	392 002	407	604		190	Shimla	.00847	.07346	.993
		COCT. 2	C118/:	0000	Groups	20000	À			3	Kinnaur	02629	.14312	.982
	Kinnanr	3 4571	N51N7	12531	[^{c40}]	300 408	400				Shimla	.03476	.13946	996
		11017	FC1F/:	10071	101	001.000	6				Kullu	.02629	.14312	.982

1.5532 74024 .05399 Within 296.144 497 .596 Groups 1.5714 .7784 .13148 Total 297.800 499 .596 .115714 .77784 .13148 Total 297.800 499 .21117 .65674 .04790 Within 242.369 497 .488 .115714 .74698 .12626 Total 246.950 499 .600 .21336 .78495 .04716 Groups .057 2 .028 .21277 .74910 .05463 Within 297.965 497 .600 .21277 .74910 .05463 Groups 8.170 2 4.085 .2294 .78157 .05700 Within 247.628 497 .498 .22394 .78157 .05700 Within 247.628 497 .498			1 6715	20105	04750	Between	1 656	,	900	1 200		Kullu	.11829	.07294	.237
Kullu 1.5552 74024 05599 Within 296.144 497 596 250 Shimla (Minimal Ling) 211829 Chroups 499 596 4696 Kimaar Chinaar -11829 -11829 Kinnaur 1.5714 77784 .13148 Total 297.800 499 4.696 Kinnaur -10005 Kullu 2.1117 65674 .04321 Berween Groups 242.369 499 4.88 Kinnaur -20195* Kinnaur 1.9714 .74698 .12626 Total 242.369 499 Kinnaur -0108* Kinnaur 1.9714 .74698 .12626 Total 246.950 499 Kinnaur .14027 Kinnaur .1336 .78495 .04716 Berween .057 2 .028 .047 Kinnaur .03785 Kinnaur .1174 .3894 Total .298.022 499 Kinnaur .0430 Kinnaur .0430 .0430 .0498 Kinnau		Summa	CT/0.1	(616).	80/40.	Groups	0.00.1	7	979	1389		Kinnaur	.10005	.13848	.750
Kinnaur 1.5714 7.7784 1.3148 Total 297.800 499 7.090 Kinnaur 1.0053 Kinnaur 1.0055 Mythin 2.45.950 499 499 Kinnaur 1.0055 Kinnaur 1.0077 Kinnaur 1.0055 Kinnaur 1.	Branding and	V.II.	1 5527	74004	05200	Within	JOK 144	407	305		250	Shimla	11829	.07294	.237
Kinnaur 1.5714 7.7784 1.3148 Total 297.800 499 4.99 Shimla -10005 Shimla 1.9097 7.1916 0.4321 Between Groups 4.581 2 2.290 4.696 Kinllu -20195* Kullu 2.1117 65674 .04790 Within 2.42.369 499 4.88 % Minia 2.0105* Kullu 2.1117 65674 .04790 Within 2.42.369 499 4.88 % Minia 2.0105* Shimla 2.1336 .74698 .12626 Total 2.46.950 499 % Kinllu .14027 Shimla 2.1336 .74698 .04716 Between .057 2 .028 .047 Kinllu .14027 Kullu 2.1336 .74910 .05465 497 .600 .047 Kinlu .04377* Kinnau 2.1336 Between 8.170 2 4.085 8.199 Kinlu .0	Advertisement		7555.1	+70+/	66600.	Groups	++1.067	6	25		007	Kinnaur	01824	.14211	.991
Shimla 1.9097 7.1916 0.4321 Between Groups 4.581 2 2.290 4.696 Kullu 1.0197 Kullu 2.0195* Kullu 2.028 4.04 Kullu 2.028 4.08 8.199 Kullu 2.028 4.08 Kullu 2.028 Kullu 2.028 Kullu 2.028 Kullu 2.028 Kullu 2.028 Kullu 2.028 Kullu <th></th> <th>Vinnent</th> <th>1 5714</th> <th>77704</th> <th>12140</th> <th>Total</th> <th>207 000</th> <th>400</th> <th></th> <th></th> <th></th> <th>Shimla</th> <th>10005</th> <th>.13848</th> <th>.750</th>		Vinnent	1 5714	77704	12140	Total	207 000	400				Shimla	10005	.13848	.750
Shimla 1.9097 71916 0.4321 Between Groups 4.581 2 2.290 4.696 Kullu 2.0195* 2.0195* Kullu 2.1117 .65574 .04790 Wirthin 2.42.369 497 .488 .010 Shimla (14027) Kinnaur 1.9714 .74698 .12626 Total 246.950 499 .047 Kinlu .14027 Shimla 2.1336 .78495 .04716 Between .057 2 .028 .047 Kinlu .14027 Kullu 2.1236 .78495 .04716 Groups 297.965 497 .609 .954 Kinlu .14027 Kullu 2.1277 .74910 .05463 Between 8.170 .028 .949 Kinlu .954 Kinlu .26966 Shimla 2.5090 .66274 .03982 Between 8.170 .498 8.199 Kinlu .13500 Kinnaur 2.3714 .3815 .76128 497<		VIIII AUT	+1/01	+0///-	0+1CT:	10121	000.162	664				Kullu	.01824	.14211	.991
Kullu 2.1336 Within 242.369 497 488 Minia 2.0195* Kullu 2.1117 65674 04790 Within 242.369 497 488 Minia 20195* Kinnaur 1.9714 7.4698 1.2626 Total 246.936 499 A 488 Kinnaur 1.4027 Kinnaur 1.9714 7.4698 1.2626 Total 246.936 499 A A Kinnaur A Kinnaur 1.4027 Kinnaur 2.1336 78495 04716 Between Groups 297.965 497 600 A Kinnaur 1.00291* Kinnaur 2.1714 82197 Total 298.022 497 600 A Kinnaur 1.3760 Kinnaur 2.1374 Within 247.628 498 498 Kinnaur 1.3760 Kinnaur 2.3714 39832 Groups A 498 Kinnaur 1.3360 Kinnaur 2.371		Chimle	1 0007	71016	0.4231	Between	1 501	٠	0000	1 606		Kullu	20195*	66590	700.
Kullu 2.1117 .65674 .04790 Within Groups 242.369 497 .488 .010 Shimla Shimla .20195* .20195* .20195* .20195* .20195* .20195* .20195* .20195* .20195* .20195* .20195* .20195* .20186 .20195* .2			1.505.1	01517.	17540.	Groups	100.4	4	067.7	†.050.		Kinnaur	06168	.12527	375
Kinnaur 1.9714 7.4698 Total 246.950 499 2.028 April 2018 Shimla of 16058 1.4027 Kinnaur 1.9714 7.4698 1.2626 Total 246.950 499 2.028 April 2019 Mill Chill April 2019 April 20	Uniform	Kullu	21117	11.75.9	04700	Within	340	707	166		010	Shimla	.20195*	66590	700.
Kinnaur 1.9714 7.4698 1.12626 Total 246.950 499 3 Shimla 5.1356 7.8495 0.4716 Between Groups 0.57 2 .028 .047 Kullu .14027 . Kullu 2.1277 .74910 .05463 Within 297.965 497 .600 954 Kimlau .00391* Kinnaur 2.1174 .82197 .13894 Total 298.022 499 .600 Kinllu .04377* Shimla 2.5090 .66274 .03982 Between 8.170 2 4.085 8.199 Kimnaur .13760 Kullu 2.2394 .78157 .05700 Within 247.628 499 .498 .600 Kimnaur .13760 Kinnaur 2.3714 .59832 .10113 Total 255.798 499 .498 .600 Kinnaur .13207 Kinnaur 2.3714 .59832 .10113 Total .255.798 499 .498	Standard		71117	1000	26/40	Groups	242.303	Ĉ.	00+		210.	Kinnaur	.14027	.12856	.520
Kullu 2.1336 78495 .04716 Between Groups .057 2 .028 .047 Kullu .00591* .14027 Kullu 2.1277 .74910 .05463 Within 297.965 497 .600 .954 Kimlau .00591* Kinnaur 2.1277 .74910 .05463 Within 298.022 497 .600 .954 Kinlu .00591* Kinnaur 2.1714 .82197 .13894 Total 298.022 499 Kinlu .04377* Shimla 2.5090 .66274 .03982 Between Groups 8.170 2 4.085 8.199 Kinlu .26966 Kinnaur 2.3394 .78157 .05700 Within 247.628 497 .498 Shimla .13207 Kinnaur 2.3714 .59832 .10113 Total 255.798 499 Kullu .13207 .13307		Vinnenn	1 0714	74609	17676	Total	246 050	400				Shimla	.06168	.12527	375
Shimla 2.1336 .78495 .04716 Between Groups .057 2 .028 .047 Kullu .00391* .00591* Kullu 2.1277 .74910 .05463 Within 297.965 497 .600 .954 Shimla .00591* Kinnaur 2.1277 .74910 .05463 Within 298.022 499 .600 Shimla .004377* Shimla 2.5090 .66274 .03982 Between Groups 8.170 2 4.085 8.199 Kimlu .26966 .26966 Kinnaur 2.3394 .78157 .05700 Within Groups 247.628 497 .498 Shimla .13207 .13207 Kinnaur 2.3714 .59832 .10113 Total 255.798 499 Roll Kinnaur .13207		Ne li a	+1/6/1	0404/	07071	FIOT	006:047	424				Kullu	14027	.12856	.520
Kullu 2.1277 74910 05463 Writhin 297.965 497 .600 954 Kimnaur .00591* .00591* Kinnaur 2.1277 .74910 .05463 Writhin 297.965 497 .600 Shimla .00577* .04377* Kinnaur 2.1714 .82197 .13894 Total 298.022 499 Kullu .04377* .04377* Shimla 2.5090 .66274 .03982 Between Groups 8.170 2 4.085 8.199 Kinnaur .13760 .13307 Kinnaur 2.2394 .78157 .05700 Writhin Groups 247.628 497 .498 .000 Shimla .13307 .13207 Kinnaur 2.374 .59832 .10113 Total 255.798 499 Kullu Kullu .13307 .13207		Chimle	7 1226	70405	04716	Between	057	ŗ	000	047		Kullu	.00591*	.07317	966
Kullu 2.1277 .74910 .05463 Within 297.965 497 .600 .954 Kimnaur Shimla .005377* Kinnaur 2.1714 .82197 .13894 Total 298.022 499 Kinnaur Shimla .04377* .04377* Shimla 2.5090 .66274 .03982 Between Groups 8.170 2 4.085 8.199 Kinnaur Integral (Minnaur) .247.628 497 .498 .998 .498 .998 .499 .498 .498 .499 .498 .498 .498 .498 .498 .499 .498 .498 .499 .498 .499 .498 .499 .499 .499 .498 .499 .499 .499 .499 .498 .499 .498 .499 .499 .498 .499 .499 .499 .499 .499 .499 .499 .499 .499 .499 .499 .499 .499 .499 .499 .499 .499			2.1330	040/	01/40	Groups	6	4	070.	Ì		Kinnaur	03785	.13890	096
Kinnaur 2.1714 Groups 27.700 499 Finnaur Condition	Forward and	Kullu	21277	74010	05463	Within	707 065	407	600		054	Shimla	00591*	.07317	966
Kinnaur 2.5090 .66274 .03982 Total 2.98.022 499 A.085 8.199 Kinnaur Shimla .04377* .04377* Kinnaur 2.2394 .78157 .05700 Within 247.628 497 .498 8.199 Kinnaur .13760 .13207 Kinnaur 2.3344 .78157 .05700 Within 247.628 497 .498 Kinnaur .13207 .13207	Linkage		1777	01617	2010	Groups	205:157	À	8		5	Kinnaur	04377*	.14254	946
Shimla 2.5000 .66274 .03982 Between Groups 8.170 2 4.085 8.199 Kullu .04377* Kullu 2.2394 .78157 .05700 Within 247.628 497 .498 Shimla 26966 Kinnaur 2.3714 .59832 .10113 Total 255.798 499 499 Kullu .13760		Kinnann	21714	70109	13804	Total	208 000	400				Shimla	.03785	.13890	096
Shimla 2.5090 .66274 .03982 Between Groups 8.170 2 4.085 8.199 Kullu 2.2394 .78157 Within Groups 247.628 497 .498 .99 Kimnaur .13760 Kinnaur 2.3714 .59832 .10113 Total 255.798 499 499 Kullu .13760			-1/17	(2170:	10001	10101	770:067	6				Kullu	.04377*	.14254	946
Kullu 2.2394 .78157 .05700 Within 247.628 497 .498 .000 Kimnaur Shimla 13760 Kinnaur 2.3714 .59832 .10113 Total 255.798 499 499 Kinnlu .13760		Chimle	2 5000	VLC99	03067	Between	8 170	·	4 085	0 100		Kullu	.26966	0/990	000
Kullu 2.2394 .78157 .05700 Writhin Groups 247.628 497 .498 .000 Kimnaur .13207 13760 Kinnaur 2.3714 .59832 .10113 Total 255.798 499 Kullu .13207 13760			0000	1700	70.000	Groups	2	4	20.5	6.1.5		Kinnaur	.13760	.12663	.523
Kinnaur 2.3714 S9832 10113 Total 255.798 499 Kullu Kullu 13207	Information Regarding	Kullu	2 2304	78157	05700	Within	247 628	407	408		8	Shimla	26966	0/990	000
2.3714 .59832 .10113 Total 255.798 499 Kullu .13207 .	Market					Groups		è				Kinnaur	13207	.12995	.567
Kullu .13207		Kinnanr	2 3714	50837	10113	Total	255 708	400				Shimla	13760	.12663	.523
				70000			2000	À				Kullu	.13207	.12995	.567

	Chimle	3 4020	CV113	02674	Between	405	·	376	571		Kullu	.04227	.06225	9/1.
		7.4030	7+110.	+/000.	Groups	744	7	4	1/2		Kinnaur	.11233	11818	609
Transportation	V.II.	2 4415	71024	05101	Within	315 705	407	121		395	Shimla	04227	.06225	977.
Facilities		74.7	+601/.	10100.	Groups	213.703	64	†		900	Kinnaur	900/0	.12128	.832
	Vinne	7 2714	72106	17257	Total	216 200	907				Shimla	11233	.11818	609
	The line		0015/	16671.	TOIS	210.200	424				Kullu	900/0'-	.12128	.832
	Chimle	7 2177	00000	04600	Between	4 660	ŗ	7 224	1 721		Kullu	18763	.06644	.014
		7/107	67007.	000+0.	Groups	4.000	7	+557	17/7		Kinnaur	22517	12614	176
Diversification	Vll	2 5052	25005	04200	Within	145 774	407	707		000	Shimla	18763	.06644	.014
of Horticulture		CCOC.7	(1500.	00C+0.	Groups	F77.1.5+7	64	† £ †		500.	Kinnaur	03754	12944	.955
	7.	0 5430	61003	10275	Total	750.207	907				Shimla	.22517	.12614	176
	VIIII AUT		5010.	7701.	TOIST	765.057	464				Kullu	.03754	.12944	.955
	Chimle	3777	K678A	04012	Between	A 750	ŗ	7 200	6 770		Kullu	.0066T ⁻	69090	.003
		7.4/07	to /00.	C10+0.	Groups	4.73	7	7.300	27.7		Kinnaur	68610	115211.	586
Training	V.II.	3,675,5	09(35	04104	Within	204 001	407	413		003	Shimla	, 00661	69090	.003
Programmes		CC 0.7	50700	515.	Groups	166:407	64	714		cov.	Kinnaur	21839	.11823	155
	Vinnam	3.4571	61694	13907	Total	057 000	400				Shimla	68610:-	.11521	586
	In a man	2.42/1	+0010.	OOCT:	TPIOT	205.130	424				Kullu	21839	.11823	.155

Note: Figure in parenthesis depicts percentage.

Source: Data collected through questionnaire.

Information regarding market is another facility provided by government to apple growers. On applying ANOVA, the F value (8.199) is significant in all the districts surveyed which convey the means differ more than is expected. Further, the Tukey test shows that the farmers of Shimla with Kullu are significant and Kullu with Shimla is also significant. In the same context, the diversification of horticulture is evaluated with the help of ANOVA. The F value (4.721) is significant between the groups. Further, the post hoc test determines the mean difference for the group factor. It identifies a significant relationship with that of Shimla with Kullu and Kullu with Shimla and results for Kinnaur district is insignificant. Finally, training programmes for orchardists were adjudged by applying ANOVA test. The test revealed that there is a significant difference in the opinion of the farmers in Shimla, Kullu and Kinnaur as F value is 5.770. Further, to examine the particular significant differences amongst the mean group, Tukey post-hoc test is applied. It is ascertained that the mean difference between the opinions of Shimla with Kullu and Kullu with Shimla is significant. Thus, it can be concluded that there are number of growers who are not aware about the marketing facilities provided by the government to the orchardists. Thus, there is a need to make them aware about these facilities by conducting awareness campaign at village level and panchayat level so that every grower could be benefited by these facilities.

Reason for Non- Availing Of Benefits: An Analysis

Despite analysing the fact that government is providing production and marketing services to the apple producers but its distribution is not proper. An effort has been made to identify the reason for non availability of these schemes and subsidies provided to the orchardists. The district wise examination of orchardists has been done. The table 1.3 exhibits that the majority of orchardists in all district level i.e., Shimla (75.5 percent), Kullu (76.6 percent) and Kinnaur (77.14 percent) are of the opinion that there is a lack of awareness among growers. Therefore, it is suggested that there should be awareness campaign for orchardists at block level, village level and panchayat level to make growers more aware about different policies and schemes launched for up liftment of horticulture industry and various subsidies provided to them. The other reasons identified are rigid government regulation and complicated procedure. The majority of the

apple growers are of the opinion that there is a rigid government regulation and complicated procedure to avail the benefits or subsidies provided to them. Although they apply for these schemes but due corruption, frauds and rigidity in regulation, the orchardists are not able to avail these benefits. Similarly, the majority of growers reported that there is a complicated procedure in availing these benefits and it is also time consuming process. Time is very important factor for apple growers. Due to the seasonal work and time bound activity in horticulture, it needs timely spraying of pesticides, manure and fertilizers. Because of time consuming procedure, the growers are not able to take benefits of these schemes on time. Therefore, the apple growers avoid availing these long procedures. The growers pay heavily for these facilities. Thus, it can be concluded that government is launching growers' friendly schemes but the implementation of these schemes is not up to the mark. Therefore, there is a need to make growers more aware about these schemes and policies and amendments in complicated procedure, rigid government regulation is required improvement for sustainability.

Table 1.3 Reason for Non- Availing of Benefits: An Analysis

Reason	Districts	Yes	No
	Shimla	209 (75.5)	68 (24.5)
Lack of Awareness	Kullu	144 (76.6)	44 (23.4)
	Kinnaur	27 (77.14)	8 (22.86)
Rigid Government	Shimla	263 (94.9)	14 (5.1)
Regulation	sKullu	171 (90.9)	17 (9.1)
Regulation	Kinnaur	33 (94.3)	2 (5.7)
Complicated	Shimla	262 (94.6)	15 (5.4)
Procedure	Kullu	178 (94.7)	10 (5.3)
Troccure	Kinnaur	33(94.3)	2 (5.7)
Time Consuming	Shimla	263(94.9)	14 (5.1)
Procedure	Kullu	178 (94.7)	10 (5.3)
Troccaure	Kinnaur	31 (88.6)	4 (11.4)

Note: Figure in parenthesis depicts percentage.

Source: Data collected through questionnaire.

Findings

- There is lack of awareness among Orchardists about the marketing facilities provided by the government.
- It was found that the role of government policies, government support is very important in holistic development of horticulture and proper post harvest management, processing and marketing of horticulture produce.
- It was found that there is lack of training campaign for orchardists.
- Distribution of production and marketing services to apple producers is not proper.
- There is a rigid government regulation and complicated procedure to avail the benefits or subsidies provided by government.'
- Implementation of the various schemes launched by government for the apple growers is not up to the mark.
- It was found that there is lack of awareness, rigid government regulation, complicated procedure to avail the different facilities and schemes laid by government for orchardists.

Conclusion and Suggestions:

The apple growers need to be educated regarding new technologies, methods used in production and marketing commercialization of apple so that they could compete with other countries. In overall period of time, apple is contributing at large scale to the growers and to the state economy. The government need to supports the orchardists with friendly policies to develop the best management practices, best marketing practices and good horticulture practices for apple production. Similarly, storage facility should also be developed in every production area. The cost of labour and large chain of commission agents should be curtailed. The infrastructure facilities should be developed and emphasis should be given on organic farming and organized markets should be formed by government so, that hassle free production and marketing could be done. Thus, it can be concluded that there are number of growers who are not aware about the marketing facilities provided by the government to the orchardists. It is suggested that there should be proper distribution of production and marketing services to apple producers. Rigid government regulation and complicated procedure to avail the benefits or subsidies provided by government should be made easy to the orchardists so that they can avail the different facilities provided by the government. There is need of proper implementation of the various schemes launched by government for the apple growers and to make them aware about these schemes and facilities by conducting awareness campaign at village level and panchayat level so that every grower could be benefited by these facilities and growers can give tough competition in domestic market as well as in international market and the holistic development of horticulture can be achieved.

Future Scope:

The present study has ample future scope for research in marketing of apple in Himachal Pradesh. A study may be undertaken to investigate the different marketing facilities adopted and competitiveness of Himachal apple at domestic and at international market due to theses marketing facilities provided by government.

References:

- 1. Rajagopal,(2004). Marketing Strategy, Implementation and Control, Rawat Publication, Jaipur. 2-3.
- 2. Padolecchia, S. P. (1979). Marketing in Developing World, Vikas Publishing House Pvt. Ltd., New Delhi. 47-48.
- 3. Saxena, A., Hussain, M., Singh, A. (2017). Impact of amended APMC act on apple business in Himachal, India Indian Journal of Agricultural Research., 51(1): 38-43.
- 4. Singh et.al., (2015). Apple cultivation in Himachal Pradesh: SWOT analysis and identified issues for the sector development- A case study, Global Journal of Current Research., 03 (03): 68-73.
- 5. Shraff, S., Kajale, J. (2008). Government Intervention in Horticulture Development A case of Maharashtra, Indian Journal of Agricultural Economics., 63 (03): 322-332.
- 6. Raj, Dev (2001). Marketing of fruit products, A case study of fruit processing industry in Himachal Pradesh Shimla., 46-50.
- 7. Subrahmanyam, K.V. (1998). Horticulture in India: Organization of production, Marketing and processing, Indian Journal of Agricultural Economics., 53(1): 23-26.

- 8. Dogra, B.S. (2010). Marketing Management & Rural Marketing: An Indian Perspective-Commonwealth Publishers New Delhi. 34-38.
- 9. Charan, A. and Dahiya R. (2015). Marketing Management, Galgotia Publication, Delhi. 55-60.
- 10. Chauhan, M. (1999). Hortivision 2020, Department of Horticulture, Himachal Pradesh, Shimla.541-550.
- 11. Prasad, S., Kumar, U. (2012). Principal of Horticulture, Agrobios Publication Jodhpur.1-35.
- 12. Singh, N., Sharma, P.L., Rana, A., Thakur, A.K & Lodhiyal, L.S. (2018) "Apple Production in Himachal Pradesh: SWOT analysis and Identified Issues for sector Development- A case study" Journal of American Science. Vol,14, issue 11 page no 55-59.

94 Apple Production And Marketing......Kiran Chanda & Kulbhushan Chandel