

Chapter 3

Evolution of Market and Present Marketing Practices

As we have discussed earlier, the market was the main force behind agricultural transformation in this area. This gives us a good opportunity to study the interplay between marketing and the production system and the process of their evolution—almost without external assistance, particularly in the hill region where lack of marketing facilities is considered the biggest obstacle to entrepreneurial development. About 60-70 years ago, when this process started, Nainital was the only market available in which vegetables were in demand. The production of vegetables was limited to only a few villages adjacent to Nainital. About 40-50 years ago when the Haldwani-Ranikhet-Almora motor road became a popular highway linking Kumaon with the plains, Garampani began to develop as a highway station. Local shopkeepers in Garampani started to purchase vegetables from farmers, first to supply local restaurants and later on to supply external markets. Gradually, a dealers' market at Garampani developed and it inspired more villages in zones Z_3 and Z_4 to grow vegetables by providing them with a secure market without the constraints of local demand.

The vegetable market at Garampani developed gradually. Until recently, it was quite non-competitive. The number of vegetable dealers at Garampani was low and the farmers had to sell their vegetables at prices dictated by them. But now the situation has changed. Increasing numbers of dealers are entering the market and they have started to procure the produce at local level at different locations along the main roads. Farmers have also begun to consign their produce directly to external markets. In the following section an attempt has been made to analyse and evaluate the marketing practices, marketing options, and competitive opportunities and threats together with recent developments in the vegetable market at Garampani.

Local Marketing Practices

(1) *Collection of Vegetables*

Vegetables are harvested when they become mature and marketable. Tomatoes, however, are collected when they are still green and sold in the local market. These are ripened in the stores before consigning them to external markets.

(2) *Local Transportation*

The vegetable growing villages are from two to seven km distance from the motorable road, therefore the transportation of vegetables from the village to the road is one of the biggest problems for vegetable growers. They carry the vegetables manually or by horse (mule). Manual transportation is more popular in the villages near Garampani, whereas mules are essential for transportation of vegetables from remote villages (Table 3.1).

A road was constructed about five years ago linking the villages in zone Z_3 , and this has reduced the time and effort required for transportation considerably. Before the construction of the road, the farmers from this zone had to carry their vegetables to Garampani or Bhujan crossing the River Koshi, risking their lives and covering a distance of from 13-21 km.



Women Going to Market

(3) Marketing Options

Apart from selling their produce to local dealers, the farmers also supply it to markets in the region such as Nainital, Almora, Bhowali, and Haldwani (See Figure 1.3). With the expansion in volume, more and more farmers are selling their vegetables to external markets, particularly to the one in Haldwani. The characteristics of these options in terms of risk, return, and labour involvement, and their adoption by farmers, will be discussed further in this paper.

Table: 3.1 : Means of Transportation

Sample Group	Means of Transportation		
	Horses (Mules)	Manually	Both
A	3 (15)	8 (40)	9 (45)
B	13 (65)	2 (10)	5 (25)
C	12 (60)	-	8 (40)
Total	28 (47)	10 (17)	22 (37)

(Figures in parentheses give the percentage of the sample size)

(4) Credit-based Marketing System

Cultivation of vegetables is seasonal in nature and the produce cannot be stored. Therefore, farmers have no flow of income during the off-season and the problem of financing consumption needs arises. Because of a lack of savings, they have to depend on local traders for credit on goods for their day-to-day consumption. The traders charge higher than normal prices for these goods. Later, against this



Transporting Goods to Market

credit, farmers have to surrender their vegetable produce to the same traders at very low prices. According to a survey carried out in 1988, 89 per cent of the farmers were selling their produce through this system and 51 per cent were heavily dependent on it. The average cost of this credit was 60 per cent per annum (Badhani and Saksena 1990). The situation has improved now. The market is more competitive from the buyers' side and more marketing options are available



A Collection Centre

to farmers. Expansion in the volume of vegetables grown has also resulted in increases in the income and savings of farmers. The farmers still receive credit from traders but the price differential is not so exploitative. More dealers have emerged in various locations (Table 3.3) and more markets are also being used by farmers (Table 3.4). As a result, price differences between the local market and other centres have also decreased (Table 3.5). In the present study, it was found that 62 per cent of farmers are still using the credit-based marketing system (Table 3.2), but most of them are not heavily dependent on it as they are selling their produce in external markets either regularly or occasionally (Tables 3.7 and 3.8). Only eight per cent of farmers sell their entire produce to local dealers. The prices of vegetables at the Haldwani market is 25 per cent higher than the local price level, but, in 1988, it was 50-60 per cent higher (Badhani and Saksena 1990: 15).

(5) Collection Centres

Until recently, Garampani was the only centre in this locality in which vegetables were purchased by dealers. About a decade ago there were 10-12 vegetable dealers in the Garampani area. With expansion in the volume of production, more and more dealers entered the market and began to procure vegetables at local level and from different places on the motorable road such as Ratighat, Ramgar, Chhara, Lohali, Bhujan, and so on. Dhanikot and Dolkot were emerging as important collection centres on the new motorable road in zone Z_3 (See Figure 1.2). About 39 dealers were engaged in vegetable marketing in these different centres (Table 3.3) and their average annual turnover was about Rs 4.5 lakh².

New collection centres closer to production areas mean that the time, efforts, and cost of transportation decrease considerably and greater production is encouraged. For example, the distance of Khalar village from Garampani is 19 km, but, after the construction of the road and development of Dolkot as a collection centre, the farmers from this village only have to travel six km to sell their vegetables. Because of the road and new collection centre the level of commercialisation in zone Z_3 has increased from about 10 to 50.27 per cent within the last eight years.

² One lakh is a 100,000. There are 42.50 Indian rupees to the US dollars.

Table: 3.2: Number of Farmers Using a Credit-based Marketing System

(Sample size in each Village = 5)

Village	Number of Farmers	Percentage
A ₁	2	40
A ₂	4	80
A ₃	4	80
A ₄	4	80
Total A	14	70
B ₁	1	20
B ₂	5	100
B ₃	2	40
B ₄	5	100
Total B	13	65
C ₁	1	20
C ₂	2	40
C ₃	2	40
C ₄	5	100
Total C	10	50
Total	37	62

Table: 3.3: Different Collection Centres and Number of Dealers

S.No.	Place	Number of Dealers
1.	Ratighat	4
2.	Ramgar	4
3.	Garampani: Upper	4
4.	Garampani: Middle	4
5.	Garampani: Lower	5
6.	Khairna: Upper	4
7.	Khairna: Lower	3
8.	Bhujan	4
9.	Chhara-Lohali	3
10.	Dhanikot	2
11.	Dolkot	2
Total		39

Table: 3.4: Different Market Options and Their Distance from Garampani (by motorable road)

S.No.	Market	Distance from Garampani (Km)
1.	Local	0
2.	Haldwani	56
3.	Nainital	29
4.	Almora	33
5.	Bhowali	18
6.	Ramnagar	111

Table 3.5: Average Prices of Vegetable Crops in 1996-97 (Rs Per Kg)

Crop	Market Options					
	Local	Haldwani	Nainital	Almora	Bhowali	Ramnagar
1. Peas	6.00	7.50	8.00	7.00	6.50	-
2. Capsicum	5.50	7.00	7.50	7.50	6.00	-
3. Tomatoes	3.08	5.81	4.63	5.60	4.35	-
4. Chillies	-	-	-	-	-	40.00
5. Soyabeans	9.10	10.00	-	-	-	-
6. Cauliflower	4.40	6.40	7.75	5.80	4.80	-
7. Beans	4.90	5.43	5.25	6.25	4.00	-
8. Potatoes	5.00	8.00	12.00	-	-	-

**Table 3.6: Index of Market Yield [Base: Local Market]
(Based on Average Prices During 1996-97)**

Crop	Market Options				
	Local	Haldwani	Nainital	Almora	Bhowali
Peas	100	118	133	108	88
Capsicum	100	105	116	117	106
Tomatoes	100	80	137	144	125
Beans	100	91	86	106	71
Cauliflower	100	133	157	109	91
Average Index	100	105.4	125.8	116.8	96.2
Average C.R. of Market	0.49	0.53	0.59	0.52	0.58
Risk Index	100	108	120	106	118

(6) Packaging

Vegetables are packed before consignment to external markets. Farmers use wooden cases for tomatoes and jute bags for other vegetables. However, the wooden casing is very costly. The cost of wooden cases is about Rs 12 and the capacity is about 7.5kg for tomatoes, thus the farmers have to bear the cost of Rs 1.60 per kg for packaging. The farmers take their produce to Nainital, Almora, and Bhowali and bring back their packing materials. But, packing materials are not brought back from Haldwani market.

Local dealers use baskets made of *arhar* bushes. These baskets are woven by craftsmen who visit Garampani from Lucknow every year during the marketing season. They themselves procure the raw materials for this purpose. These baskets normally contain 10-12kg tomatoes or capsicum and cost Rs six to eight rupees per basket. *Arhar* baskets are not in sufficient supply and dealers still need to use wooden cases.



Weaving Arhar-Baskets - Packing Material

(7) Grading

No grading is carried out by the farmers. However, some dealers separate the superior and inferior grades of vegetables after collection.

(8) Marketing of Soyabeans and Chillies

Apart from green vegetables, soyabeans and chillies are also important commercial crops in this region. Soyabeans fall under the support-price system of the government and they are

Table: 3.7: Main Market Choice: Village-wise Distribution

(Sample Size in each Village = 5)

Village	Number of Farmers		
	Local	Haldwani	Nainital
A ₁	5	-	-
A ₂	2	3	-
A ₃	-	5	-
A ₄	-	5	-
B ₁	-	5	-
B ₂	1	4	-
B ₃	3	2	-
B ₄	5	-	-
C ₁	2	1	2
C ₂	5	-	-
C ₃	5	-	-
C ₄	5	-	-
Total	33	25	2
Percentage	55	42	3

to analyse the nature of demand, labour involvement, return, risk associated with these different marketing options, and rationality of farmers' market choices.

(1) Nature of Demand

The vegetables are in demand locally in Nainital, Almora, and Bhowali. A large number of tourists visit these hill stations every year, particularly in summer. Therefore, there is quite a demand for vegetables during this season. However, due to the small size of local demand, the prices of vegetables decrease very sharply with an increase in supply. There are no such constraints in the Haldwani market and in local markets because vegetables are in demand here as further consignments to external markets.

(2) Time Involved

Farmers have to go to Nainital, Almora, and Bhowali markets to sell their produce: these towns lie at a distance of 29, 33, and 18km respectively from Garampani by motorable road (Table 3.4). Nainital can be also approached by the trekking route. However, vegetables are sent to Haldwani market directly through agents. Therefore marketing in Nainital, Almora, and Bhowali markets is more time consuming and labour intensive than for Haldwani and the local markets.

(3) Price Differences and Returns

The most important consideration in the choice of market is financial returns. Therefore, this study has attempted a comparative analysis of relative price differences in different markets. It should be noted, however, that the prices prevailing in different markets cannot be compared directly because of the differences in marketing costs involved, therefore the following methodology has been used for analysis.

procured by cooperative societies at a fixed price. Farmers also sell soyabeans to local dealers or to the Haldwani market if higher prices are offered. The main market for chillies is in Ramnagar. Farmers sell their produce either directly to the market or to local dealers.

Different Marketing Options: Risk, Returns and Choice

As discussed earlier, farmers have at least five marketing options. They may either sell their own vegetables to local dealers or they may consign them to other markets, e.g., Haldwani, Nainital, Almora, and Bhowali. Chillies are also supplied to the Ramnagar market. In this section an attempt has been made

- i) The average price of different vegetable crops for the last year (during the marketing season in Garampani) in different markets was obtained from the farmers (Table 3.5).
- ii) Ex-farm value of different crops from different villages for different markets was determined as follows:
- iii) Ex-farm value = Market Price - Marketing Costs.
- iv) Average ex-farm values of different crops for different markets were calculated.
- v) These ex-farm values of different crops were expressed in the form of index numbers for different markets taking the local market as the base (Table 3.6).
- vi) The Index of Market Yield was worked out by averaging the Index Numbers of five major vegetable crops.

Table 3.6 shows that the prices in Haldwani, Nainital, and Almora are higher than the prices in local markets by 5.4, 25.8, and 16.8 per cent respectively. The price in Bhowali market is lower than the local market by 3.8 per cent.

Table: 3.8: Market Choice (Sample Group-wise Distribution)

(Sample size in each group = 20)

Sample Group	Frequency	MARKETS				
		Local	Hal.	Ntl.	Bhl.	Alm.
A	Frequently	7 (35)	13 (65)	-	-	-
	Occasionally	7 (35)	3 (15)	5 (25)	4 (20)	1 (5)
	Total	14 (70)	16 (80)	5 (25)	4 (20)	1 (5)
B	Frequently	9 (45)	11 (55)	-	-	-
	Occasionally	10 (50)	6 (30)	3 (15)	2 (10)	-
	Total	19 (95)	17 (85)	3 (15)	2 (10)	-
C	Frequently	17 (85)	1 (5)	2 (10)	-	-
	Occasionally	-	10 (50)	8 (40)	-	-
	Total	17 (85)	11 (55)	10 (50)	-	-
Total	Frequently	33 (55)	25 (42)	2 (3)	-	-
	Occasionally	17 (28)	19 (32)	16 (27)	6 (10)	1 (1.6)
	Total	50 (83)	44 (73)	18 (30)	6 (10)	1 (1.6)

(Figures in parentheses give the percentage of the sample size)

Hal = Haldwani
 Ntl. = Nainital
 Bhl. = Bhowali
 Alm. = Almora

(4) Risk and Uncertainty

Attempts have also been made to measure the risk associated with different market options. The following methodology was used for this purpose.

- i) The maximum and minimum prices of different vegetables in different markets over the last year were obtained from respondents.

- ii) The coefficient of range was worked out for different vegetables in different markets.
- iii) The average coefficient of range for different markets was calculated and expressed in terms of an Index Number, i.e., Risk Index (Table 3.6).

The table shows that the yield in external markets is higher but, at the same time, so is the risk involved in comparison to local markets. External markets also involve uncertainties that the above index cannot measure. Respondents said that the prices in Nainital, Almora, and Bhowali and, to some extent, in Haldwani fluctuate very sharply even within a day. This makes these markets more risky.

(5) Choice of Market

Choice of market depends on all of the above factors, i.e., risk, returns, and labour involvement. Limited demand, high risk and uncertainty, and higher labour involvement make Nainital, Almora, and Bhowali less attractive. These markets provide only occasional outlets. Only farmers in zone Z₁ adopt Nainital as a regular market for their vegetable produce.

In 1988, only five per cent of farmers were selling their vegetables in Haldwani (Badhani and Saksena 1997), but a decade later 73 per cent of farmers are doing so and 42 per cent of farmers have adopted Haldwani as the regular market (Table 3.7 and 3.8). As a result of this process, the price differential between Haldwani and local markets has narrowed considerably.

Competitive Opportunities and Threats

Until recently, there was no problem of external competition for the off-season vegetable growers of Garampani but now the vegetable markets are becoming more and more competitive because of the following reasons.

- i) With advancement in the means of transportation, the vegetable markets have become national/international instead of local or regional.
- ii) Other mountain regions have also started to grow off-season vegetables. Himachal Pradesh particularly is becoming an important off-season vegetable growing region.
- iii) With agronomical advancement it has become possible to grow many varieties of vegetables in the plains during the months in which it was not possible to grow them previously.

Table 3.9 shows the marketing seasons for different vegetables in the Himachal Pradesh main competitor region where vegetables are grown in the same seasons as in Garampani. It is seen that Himachal Pradesh is the main competitor for the Garampani area in the vegetable market. The vegetable dealers in Garampani are coping with this competition through a geographical segmentation strategy, as they are supplying their vegetables to eastern markets to avoid the competition from Himachal Pradesh (Table 3.10).

Table 3.9 also shows that the tomato market is under heavy pressure from competition. Tomatoes are available in the Himalayan *terai* and plains up to the first heavy monsoon rain in late June. Gujarat, Maharashtra, Andhra Pradesh, and Karnataka have started to grow

Table: 3.9: Competitive Producers of Different Vegetables

S.N.	Vegetable Crops	Marketing	Main Competitors	Other Competitors
1.	Peas	Mar-Apr		Early March: Himalayan Terai
2.	Capsicum	Jun-Sept	Himachal Pradesh	May-June: Himalayan Terai
3.	Tomatoes	Jun-Aug	Himachal Pradesh	June: Himalayan Terai
				July: Maharastra southern India
				August: Punjab
4.	Cauliflower	Jul-Aug	Himachal Pradesh	-
5.	Beans	Jun-Sept	Himalayan Terai	-

Table: 3.10: Main Marketing Destinations for the Dealers

S.No.	Market	Vegetable Produce
1.	Haldwani	All, mostly lower grade
2.	Lycknow	Tomatoes, Capsicum, Peas, Cauliflower
3.	Agra	Capsicum, Tomatoes, Peas, Cauliflower
4.	Kanpur	-do-
5.	Sitapur	Tomatoes, Capsicum
6.	Gorakhpur	Tomatoes, Capsicum
7.	Calcutta	Capsicum
8.	Tejpur, Assam	Tomatoes
9.	Delhi	Cauliflower, Capsicum

tomatoes in this season and they reach the markets by the second half of July. The mountain regions cannot withstand this competition because of differences in productivity. The safe period for the tomato cultivators of mountain regions is the first half of July (15-20 days). During this period, the tomato growers of Garampani have to face competition from Himachal Pradesh. Furthermore, the tomatoes from Garampani (ripened in stores) cannot fetch as high a price as the naturally ripened tomatoes of Himachal Pradesh. During the survey, the respondents said that they had not received reasonable prices for tomatoes over the previous three to four years. During our visit to Haldwani in July, we found that tomatoes were selling for Rs 3.30 per kg. and the net saving to farmers (ex-farm) was negative by Rs -0.47. Therefore, the share of tomatoes in the crop mix is declining sharply, and they are being replaced by capsicum. There is a need for quality improvement as well as for market intelligence and agronomical research to determine the viability and most remunerative time period for tomato cultivation in mountain regions in view of the new competitive environment.

Institutional Efforts in Marketing

(1) Cooperative Marketing

U.P. Cooperative Fruit, Vegetable and Drug Marketing Federation-FRUITFED has been working for about a decade. Its headquarters are in Haldwani. It sponsored an auction hall in

Haldwani and tried to procure vegetables from Garampani through Garampani Vegetable and Fruit Marketing Cooperative Society and Almora District Fruit and Vegetable Marketing Cooperative Society with little success. However, these cooperative societies are doing well in the marketing of soyabeans. Green vegetables are highly perishable commodities and marketing them requires very prompt action, which is hard to come by from the cooperative societies in U.P. working in the bureaucratic environment under the tight control of their sponsoring government department.

Delhi Milk Cooperative Federation — Mother Dairy has also been working over the last four years in marketing vegetables and fruits, particularly capsicum, beans, and peaches, through its subsidiary organization — Fruit and Vegetable Growers' Association, Ratighat, Nainital District. The Federation is following the 'elite' target strategy for marketing. It purchases only superior grade vegetables and markets them in Delhi. It tries to cater to the high-value and export market and realises considerably higher prices for the farmers than the local price levels. But it has not been able to succeed so far in selling its idea to farmers, so its volume of operations is very low. On the day of our visit the Association could only collect four quintals of capsicum.

(2) *Market Samiti, Haldwani*

Haldwani market is regulated by a Market *Samiti* (committee). One of its sub-markets was proposed for Garampani. A building for this purpose was constructed, but the market was not established. Now, this building has been transferred to the Revenue Department.

Many government-sponsored farmer welfare programmes — such as crop-insurance schemes, hand pump schemes, village road construction schemes, etc are executed by the market *samiti*. But most of these schemes are not in tune with the needs of the farmers in mountain regions. In the absence of any organization of their own, farmers are often cheated when they market their produce through agents (See Box 3).

Box 3: Loss in Marketing through Agents

The District Horticulture Officer of Nainital came across three interesting incidences during his visit to the fruit growing belt of the District. In Ghuna village, a farmer consigned a few cases (a case contains about 16-17 kg) of apricots to the Haldwani market after spending Rs 50 per case for packaging, transportation, and marketing. He received a statement of sales from his commission agent of Rs 25 per case. Another farmer in Pyura village also consigned apricots in the same way and received a statement of sales of Rs 75 per case. A third farmer in the same village consigned apricots directly to Ajadpur market through his agent, a transporter. He had to spend a little more, about Rs 60 per case, and realised a gross sale of Rs 135 per case. Although the prices of vegetables and fruits fluctuate considerably, the possibility of commission agents deceiving farmers cannot be ruled out. No one represents the farmer at the market to verify that the farmer is being paid in accordance with the sale of his produce. It is not possible for the farmer to go himself to the market every time. Therefore, "the farmers will have to form an interest group and will have to make an arrangement to send one of its members in rotation to represent them in the market; only then will the farmers be able to realise reasonable prices," said the District Horticulture Officer. Contributed by District Horticulture Officer, Nainital

³ In the context of this paper horticulture refers to commercial vegetable and fruit farming and is not understood within the strict definition of horticulture, i.e., gardening.