

SUPPLY CHAIN ORIENTATION FOR AGRICULTURAL PRODUCTS MARKETING

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Introduction:

India is a country with large population and landscape. With 327 million of hectares of land spread of which about 145 million hectares under cultivation. India is basically an agricultural country gifted with a diversified range of climate and plant species. There is round the year production of cereals, pulses, oil seeds, vegetables and fruits. Agrarian climatic conditions and locational advantage of India in the global map provided with some natural edge in agriculture. India is one among the top producers of rice, maize, wheat, groundnuts, tea, coffee, spices, sugar and oilseeds. Also, India is the second largest producer of fruits and vegetables next only to Brazil.

Agricultural marketing in India is basically in the clutches of middlemen and peasants who hold an octopus grip. It is a known fact that when there is a rise in the price of farmers' produces they are the least to be benefited and when prices fall they are the most affected. The effective and efficient system of agricultural marketing is therefore is the need of the hour to protect the farmers from the parasitic clutches of middlemen and also distress sale of food grains.

Agricultural marketing plays a significant role not only in stimulating agricultural production but also in assuring remunerative prices to the farmers which ensures adequate supply of quality food grains to industry and consumers at a reasonable price.

Therefore, a good agricultural system directly contributes to the economic development of a nation.

I. Unique Characteristics of Agricultural Marketing :

Market for agricultural produces is very large in terms of the number of customers and the geographical coverage involved. Food grains are the basic necessities of life for both human and animal population. The unique characteristics of most of the agro produces are seasonality, perishability, and variability. These characteristics are coupled with large number of small growers who are scattered all over the country and lack of market information. In the peak season at times prices of agricultural produce dips so low to the extent that farmers throw away their marketable surplus. In other occasions, distress sale of agricultural produces at lower prices even below the cost of production and hence growing becomes un-remunerative. Therefore, effective linkage between production and consumption of agricultural produces through proper supply chain is very essential for the benefit of growers and consumers.

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II. Current Status of Agricultural Marketing System In India :

Agriculture is the backbone of Indian economy. It contributes more than one third to the GDP of the country and provides more than 60 percent of employment. The good agricultural marketing offers variety of benefits to the growers to dispose the marketable surplus at an appropriate price and location which in turn helps to strengthen the national economy. Presently, both traditional and modern agricultural marketing practices are used in India. The following are the agricultural marketing practices :

- a. Sell away surplus produced to the village money lenders / traders, who may buy it on his own or as an agent to a bigger merchant.
- b. Selling marketable surplus in the weekly village markets known as haats.
- c. Marketing through mandis in small and large towns with the help of dalals and brokers.
- d. Selling directly to agricultural product processing units.
- e. Marketing through regulated markets (APMCs, boards and authorities) established as per the provisions of the " Marketing of Agricultural Produce Act" of the state government. These regulated markets introduce a system of competitive buying and eradicating trading mal-practices. Thereby narrow down the price spread between producers and consumers.
- f. Co-operative marketing : Growers' co-operative societies which sell the marketable surplus of members. Society collects the produce from all the members even from members of their village who are willing to sell their produce and then dispose it.

III. Basic Facilities Needed for Agricultural Marketing

Till recently agricultural marketing was a neglected area. There was no well established marketing practices and significant infrastructural facilities to control the demand and supply forces in the market. On account of this post harvest losses and market gluts were very common in agricultural produce marketing. Under the new economic policies and planning, a special focus on infrastructural development for agricultural produce marketing is given.

The essential requirements for effective marketing of agricultural produces are as follows :

- a. Storage facilities to adequately store the agricultural produces.
- b. Financial support to the growers for holding produce till the time he could get better prices.
- c. Adequate and cheap means of transportation.
- d. Information regarding market conditions.
- e. Export promotion through agricultural produce processing zones.

- f. Adequate value addition and processing unit for commercial value addition to the agriculture and horticultural produces for creating better market.

IV. Supply Chain for Agricultural Marketing :

Due to improper linkages between producer and consumer of agricultural produces and in-effective distribution management, more than 30 percent of the agro products are spoilt in India. (Dr. Dheeraj Singh). According to a McKinsey study (1996), the long chain of intermediaries in the agriculture produce supply chain cause the price of the produce to triple between the growers and the final outlet.

A typical supply chain for agriculture produce consists producer, intermediaries, processors, distributors and consumers. Managing information flow and effective integration amongst the chain members is very crucial in agricultural produce marketing. An effective supply chain provides a comprehensive solution to the over and under production of agricultural produce and also regulate the supply and price of agricultural produce. Supply chain gives inter-organization focus to the members involved in agricultural production and marketing. Hence, effectively controls the demand and supply of agricultural produces.

V. Supply Chain Model for Agricultural Produce :

Supply and distribution management are two important functions that play a great role in successful marketing of a product or service. Integrating and involving both upstream and downstream activities in the value delivery sequence is the real challenge in supply chain management for agricultural produce. Upstream activities in the agricultural product supply chain consists large number of small , medium and large farmers. Downstream consists both traditional and modern marketing channels and also processing units. Comparison of traditional marketing channel with modern supply chain system highlights the benefit of supply chain management for agricultural produce.

Fig. 1. Traditional channel.

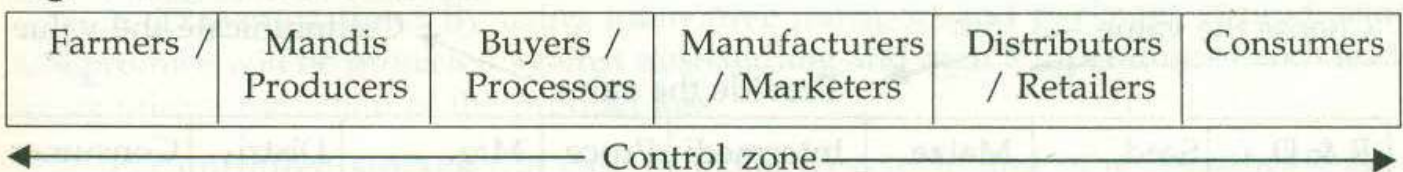
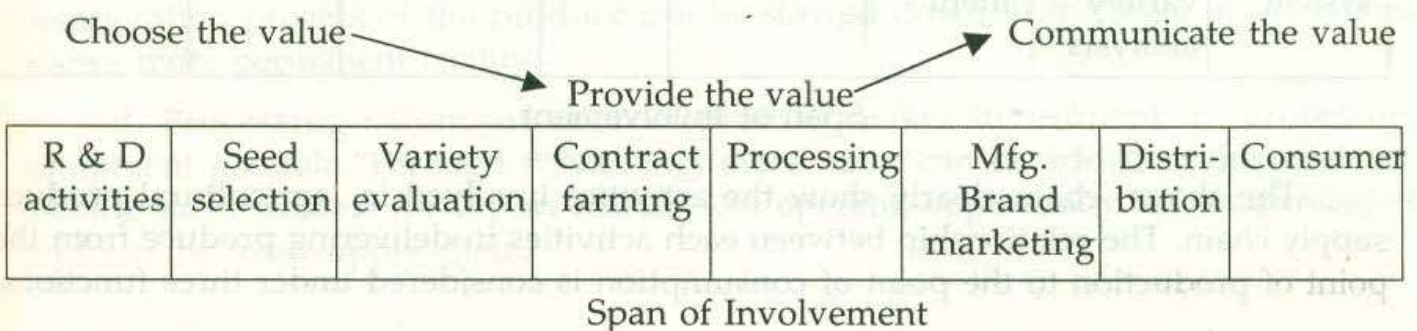


Fig. 2 Modern approach in value delivery through supply chain.



According to an international consortium, supply chain management through value added centres (VAC) for agro and horticultural produce perform important function in smooth and orderly flow of agricultural produce from the point of production to the point of consumption through an integrated distribution system. Modern supply chain for agricultural produces considers the local circumstances for domestic marketing and global supply chain for international markets.

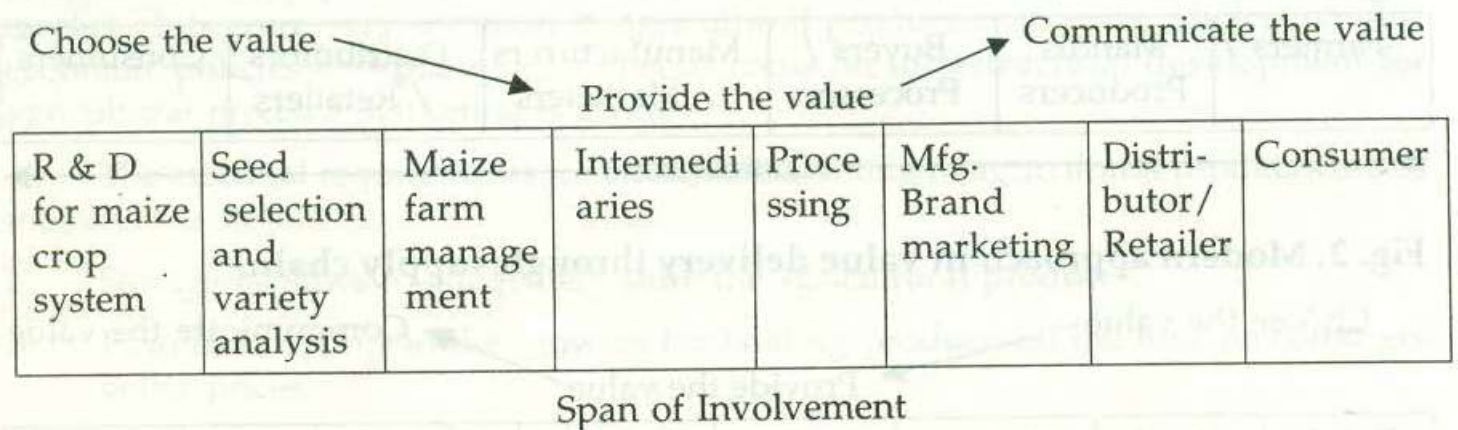
Consider an example. Maize is one of the major agricultural produce in India used for both food and non-food purpose. Large quantity of maize is used for processing and manufacturing several products such as starch, malto-dextrine, liquid glucose, sorbital, gluten, germ, edible oil and animal feeds etc. The maize is presently marketed through both direct and indirect channels. The direct channel consists growers directly selling maize to the processing units from the farm with minimum primary processing. Under indirect channel, maize is sold through the APMC approved dealers, who in turn sell it to the processing units. In both the channels, there is no effective co-ordination between growers and buyers. As a result, there is a great uncertainty in the supply as well as quality of maize. Traditional marketing channel used for maize is as follows :

Fig.3.

Growers	Dealers	Processing Units	Food Products manufacturers	Distributors	Consumers
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The above channel treats each member in the channel as an independent unit and there is no common goal. Where as in modern supply chain system all the members in the channel are integrated to ensure effective coordination between backward and forward linkages.

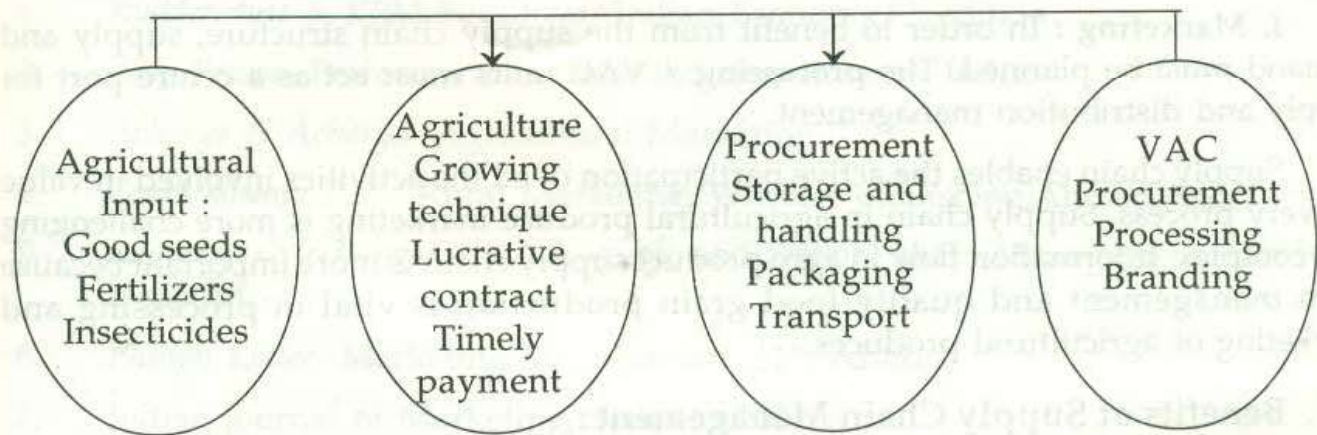
Fig. 4 : The marketing channel under supply chain system for maize is as follows :



The above chain clearly show the activities involved in agricultural produce supply chain. The relationship between each activities in delivering produce from the point of production to the point of consumption is considered under three functions,

such as choose the value, provide the value and communicate the value. Therefore supply chain orientation is a great advantage for effective marketing.

According to McKinsey, improved supply chain management for agro and horticultural produces consists :



VI. Supply Chain Function in Agricultural Produce Marketing

Supply chain is an integral approach which integrates all the members in the value chain. It effectively controls the orderly flow of raw materials and components into finished products and to the final customer. The aim of supply chain is timely delivery of goods and services at a low cost. Supply chain for agro products effectively establish the link between backward and forward linkages to reduce the post harvest losses, cut down the marketing expenses and also supply quality food grains to the consumer at a reasonable price. The important functions of supply chain are as follows :

a. Collection : When collection of the produce from the farmers takes place early in supply chain, concentrated product flow is created. This makes cost reduction and the necessary investment possible through benefit scale.

b. Transportation : By using innovative transport and packages at production site produce will be protected against mishandling and high temperatures which leads to significant reduction of the product loss.

c. Controlled storage : In case of fruits, vegetable and other perishable agro products, refrigerated controlled atmosphere (CA) containers provide a cheap, flexible refrigerated storage possibility. As a result supply period can be stretched and the deterioration process of the produce can be slowed down, if the scale of operations allows more permanent facility.

d. Processing : Concentration of product makes investment in processing equipment possible. Through processing, more value can be added to the products, making them suitable for export market and opening opportunity for an increase of profit in the total supply chain.

e. Information gathering and transferring : Information becomes increasingly important in business. The processing units / value added centres collect information about producers of agro products and market for processed products to optimize the assortment marketed. Systematic gathering and use of supply chain information also leads to a better control of supply chain.

f. Marketing : In order to benefit from the supply chain structure, supply and demand must be planned. The processing / VAC units must act as a centre port for supply and distribution management.

Supply chain enables the active participation of all the activities involved in value delivery process. Supply chain in agricultural produce marketing is more challenging and complex. Information flow in agro product supply chain is more important because farm management and quality food grain production is vital in processing and marketing of agricultural produces.

VII. Benefits of Supply Chain Management :

Supply chain orientation offers certain benefits to agricultural produce marketing such as :

- a. Better return to the agro produce growers.
- b. Cost minimization through integrated planning.
- c. Better farm management.
- d. Better supply and demand management.
- e. Minimization of post harvest losses.
- f. Provide quality food grains to consumer at a reasonable price.

Conclusion :

Agricultural marketing is a multi state process consists variety of activities right from the point of farming to the final consumption. The important activities are collection, processing, grading, storing, pricing, distribution etc. Supply chain management in this system is a very complex task. Collection of agricultural output consists of procuring from large number of small and medium farmers who are scattered into different geographical regions. Distribution of food grains to the consumers in the form and quality required by them can be achieved by processing. Therefore, an effective supply chain system plays an important role in agricultural marketing system.

For the improvement of agricultural marketing structure, a holistic approach aiming at removing all weak links of the marketing chain is essential. There are certain aspects which have to be developed by government for facilitating smooth flow of agricultural produces. The basic infrastructure like roads and rural transportation, storage facilities, regulated market yards, agro products market information centres and agro produce processing zones etc. are to be developed by the government.

In conclusion, supply chain orientation for agricultural produces needs a great attention of government and policy makers to achieve organized marketing system for agricultural produces similar to any other products.

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