CHAPTER - III

CHAPTER - III

INFORMATION TECHNOLOGY (IT) AND AGRICULTURAL MARKETING PRACTICES

3.1 INTRODUCTION

The agricultural producer in India is said to suffer by way of not getting the remunerative price for his produce. The disparity between the final prices and the prices paid by the consumer is large. In this process the farmer appears to be a great looser, whereas the middlemen remain a gainer. This problem of agricultural marketing was discussed in a great length by the Royal Commission on Agriculture in 1928 and has been highlighted in the various marketing reports published by the marketing Advisor to the Government of India since 1937.[1]

Farmers are neither fully posted nor supplied with correct information about market prices, change in prices, centres of demand, international trends, government policies, etc. As a result farmers who visit market occasionally base their decisions on the information supplied by the money-lenders, traders and intermediaries. This information is generally misguiding and it always remains in favour of purchasers and goes against the farmer sellers.

India has entered a new era of globalisation and economic liberalisation. There are possibilities of increased trade in global markets. To achieve this, agricultural production and marketing should become efficient, competitive and innovative.

---

[1] Acharya, S. S. and Agarwal, N. L. (2004) : Agricultural Marketing in India, Oxford and IBH Publishing Co. Pvt. Ltd., New Delhi, Pp. 63-64.

Agricultural marketing system and procedures need to be restructured and reoriented to meet the needs arising out of the globalisation process.

3.2 ROLE OF MARKET INFORMATION

Market information is a facilitating marketing function. Market intelligence is essential to a smooth, effectively operating marketing system. Accurate and timely market information facilitates, marketing decisions regulates the competitive market progress.

Market news, information and research are the lifeblood of the markets. Market information agencies take the pulse of the market measure.

One important function of market information is to improve decision making farmers and use market information while selecting enterprises, changing production plans, making long-term investments and deciding to when, where, and how of their marketing strategies. Although, the perfectly competitive requirement of perfect information is unattainable in the competitive process. More information is better than less. Information accordingly is critical to the law of one price and to the price discovery process. Without the widespread availability of market information, buyers and sellers would need to devote considerably more time and money to market search activities than they currently do. The value of information is evident in markets, where firms will pay a high price to specialised agencies for profitable information.

3.3 MEANING OF INFORMATION TECHNOLOGY (IT)

It is quite evident to most of the world that, information technology is used in a generic sense to include the portion of electronic technology directly dealing with the management and communication of information

resource. In such a context, IT can be defined as to include the computing technology, i.e. all processor based machines and peripherals and the communication technology such as the facsimile machines, modems, satellites, radio telemetry, etc. for acquiring information and knowledge.[2]

3.4 AVAILABLE INFORMATION TECHNOLOGY FOR AGRICULTURAL MARKETING IN INDIA

The study is focused in the present chapter on the available information technology for agricultural marketing in India. In India, which information technology is used for agricultural marketing and how it is being practiced with the available information techniques for agricultural marketing is explained.

3.4.1 COMPUTING TECHNOLOGY

As a part of creating a network of market intelligence, microcomputers are being installed at the market yards to capture the basic details in the domestic trading. Other utilities of these computers include the market fees, accounting, financial accounting, budgeting, payroll and an information system to monitor the market fees collection in addition to other routine uses of computers in an office setting.

Computer installation at the State Agricultural Marketing Boards is utilised for creating state level databases of the domestic trade, enhancing these databases with trade information from other states and nations, ongoing research and publications and routine administrative procedures which are automated to a great extent. The National Informatics Centres have been the focal organisation for creating a national level database through its District Computer Centres and the national network

---

[2] Nayyar, H. and Ramaswami, P. (1995) : Globalisation and Agricultural Marketing, Rawat Publication, Jaipur, P. 116.

(NICNET). Professional inputs and assistance are being incorporated appropriately as a part of the whole process of implementation. Information regarding the local trading is being disseminated to the producers and traders through the mass media such as television, radio and newspapers.

3.4.2 PROJECTION TV

MSAMB has established Market Network (MARKNET) for information exchange. The information collected through MARKNET would be effectively disseminated for the use of farmers and other elements involved in agricultural marketing. Further the MSAMB has decided to make the price data displayed in APMC premises by use of electronic media and initiated new scheme of installation of 60" or 43" projection TVs at the market yards.

To display online daily arrival and prices prevailing in the market yards and the ruling price in other key markets in the state and provide agriculture related information or other information of interest to the farmers.

3.4.2(a) FUNCTIONING

Each of the APMC participating in the scheme has either 60" or 43" Projection TV with a computer and Internet connectivity. The consolidated information of arrivals and prices are downloaded from the central server of MARKNET, located at MSAMB and displayed on the Projection TV.[3]

Besides, displaying the price information, the system is proposed to be used for following activities :

---

[3] www.msamb.com

1. To display information related to post harvest technology, grading, packing, new seeds, pesticides, fertilisers, care about various diseases, Government Schemes, etc.
2. To impart training to the farmers.
3. To display commercial advertisements related to agriculture.

3.4.3 BAJAR MAHITEE KENDRA

The Department of Agriculture, Government of Maharashtra is implementing a centrally sponsored scheme for market information centre (Bajar Mahitee Kendra) 2000-01. Since, the APMCs (Agricultural Produce Market Committee) are ideally placed to pass on the benefits of the scheme to the farmers and other functionaries involved in agricultural marketing system, the MSAMB (Maharashtra State Agricultural Marketing Board) is promoting the scheme among the APMCs. APMCs are the real providers of necessary guidance and help as needed in implementing and functioning the project.

Daily market arrivals and price information is being entered into the computer at the APMCs level and are being sent to central communication server located at MSAMB, through modem and telephone, the newly received information is processed automatically with the help of software and the processed information is downloaded by APMCs for future dissemination through notice board or projection T.V.

3.4.4 NEWSPAPERS

The complex society of today is characterised by what may be called information explosion. Because of many new and effective channels of information, the members of society are becoming increasingly informed about the on going surroundings; and bring them to

the doorsteps on the socio-cultural situations. Among these new agencies, the place of newspapers is by far the most important. The newspaper through printed matter conveys information regarding the day to day happenings in the nation or state. Of course, the press is patterned closely according to state-policy. And that way the type of news which are printed and the general policy of the government regarding the dissemination of information, the nature and extent of freedom of expression in a country affect not only the quantum of information received by an individual but also go to shape and direct the attitudes and behaviour of the members of society.

In agricultural modernisation, the role of newspapers is undisputed. With the general rise in the level of literacy of the population and with the changing pattern of media coverage, more importance is given to the development news. The newspapers serve as a harbinger of change. The newspapers conveys information about the various aspects of agricultural policies, market situation, agricultural plans and projects, as also the problems and achievements of farmers in different parts of the literate and semi-literate farmers and introduces them to a new agricultural ideas and techniques.

3.4.5 RADIO/TRANSISTOR

In today's complex society, radio/transistor is the most farreaching and popular means of communication. This channel overrides the geographical as well as the human boundaries. The physical limitations imposed by the national/state boundaries and news censor policies prevalent in a particular country have no meaning in the contest of radio-transistor which can cross the national boundaries and can unite the whole world into a single communication unite. Similarly, the human limitations imposed by the illiteracy and poverty of the population have

almost negligible effect upon the communication of news, ideas and programmes through radio/transistor. Unlike the newspapers and other printed materials, radio/transistor reaches even the illiterate living in far-flung places which are inaccessible by rail or road. The importance of radio/transistor is unique in the sense that it transmits the news or ideas instantly to a large population living in a particular geographical area. Radio/transistor takes relatively very little time in the communication or percolation of new ideas. In developing countries, the level of electronic technology and the nature and pattern of programmes as well as the overall media-broadcast policy leave a deep impact upon every aspect of social and economic life of the country.[4]

In the field of agricultural development, the role of radio/transistor is most significant. In developing countries like India, special programmes to benefit the farmers are regularly broadcasted. These agricultural programmes help induct the farmers into new ideas and techniques in agriculture. They further make the farmers aware of the problems and progress made by other farmers. In short these constitute a medium of interaction through which the farmers, administrators, planners and agricultural specialists could interact meaningfully. Planned agricultural development could also be substantially and significantly facilitated through the use of radio/transistor.

3.4.6 SEEING MOVIES (FILMS)

Today films are the most popular and cheapest medium of recreation. This medium is mainly confined to urban centres. It had a considerable influence upon the rural population. Persons living in the rural areas adjoining to the cities visit for the movies frequently.

---

[4] A. Sivarama Prasad (1944) : Agricultural Marketing in India, Mittal Publications, New Delhi, P. 237

Sometimes, the main purpose of the rural youth in visiting the city is to see the film. The film, though mainly provide entertainment, has also got its own innovative and educative role. It spreads new fashions, new models of behaviour and new ideas. The film could be used as a powerful instrument of socio-economic changes in the desired directions. It can perform useful roles in the sphere of agricultural development also.

The APMCs insist informative films about how to use new technology and how to carryout the farm practices thus provides a new knowledge for the farmers and traders.

3.4.7 E-MARKETING

The e-marketing/procurement concept in India is just recent one and is being promoted in marketing of cereals and pulses. This provides farmers more about the control over their choices, a higher profit margin on their crops, and access to information that improves their productivity. E-marketing is a term that can be used to label the potential of information technology (IT) and the internet, and the impact on marketing and e-marketing is perhaps the single most important new development in technology in the entire history of marketing, particularly in its availability to leap over distance. By providing a more transparent process and empowering local people as a key model in the system, increases trust and fairness.[5]

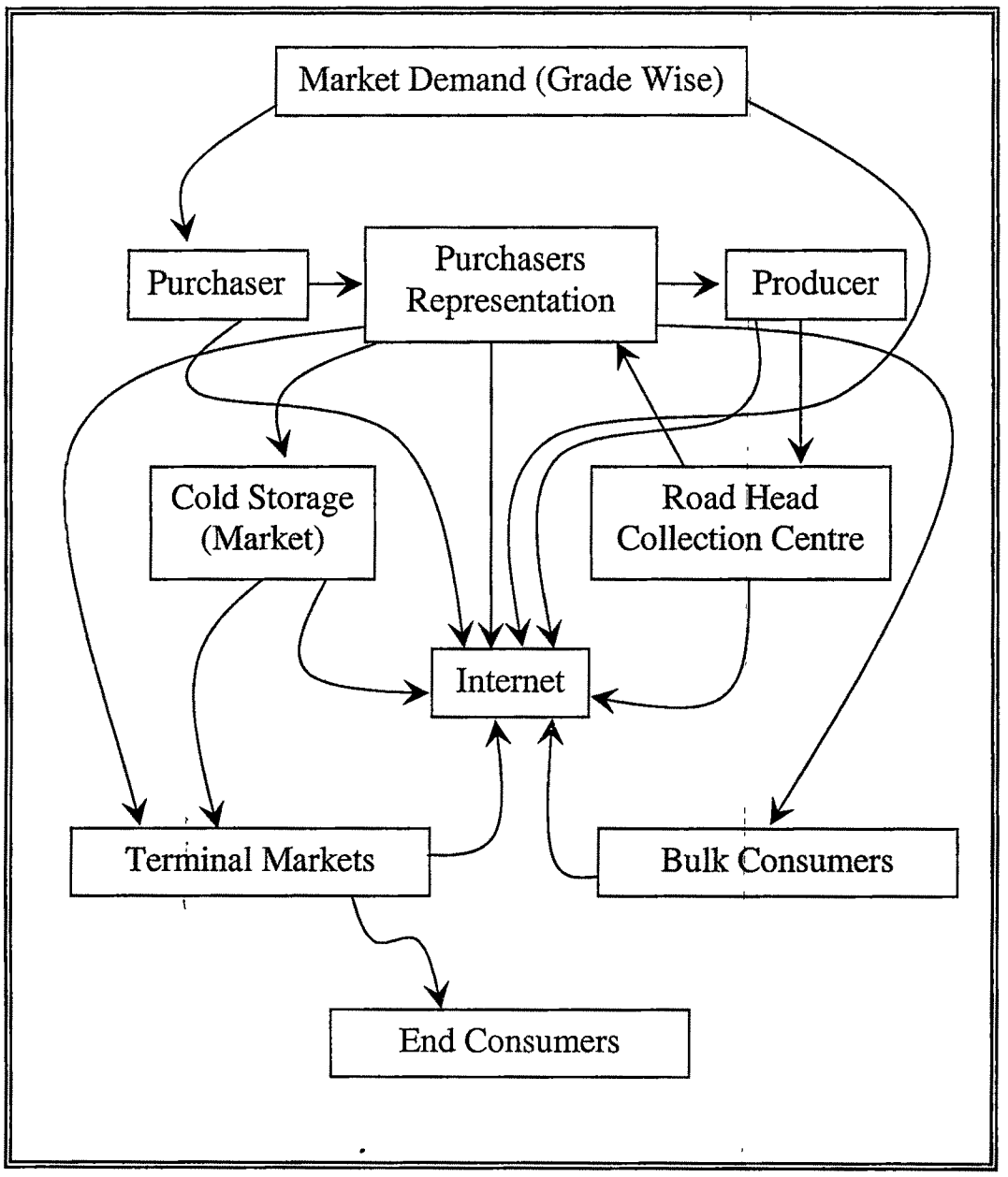
The Figure 3.1 shows that the electronic marketing entered to the agricultural marketing field. Agricultural marketing is more related to purchaser, purchaser's representative, producers, collection centres, storage, terminal markets and end consumer etc. who are direct dealing

---

[5] Indian Journal of Agricultural Marketing, Vol. 14, No. 3, (Conference Special), Sept.-Dec. 2000, Nagpur, P. 80.

with internet by providing information to each other for the business without restrictive middlemen. E-marketing provides a more transparent process both to produces and consumers. Producers took fair prices given by the consumers and consumers buying agro-products with reasonable prices.

Fig. 3.1 : E-Marketing Model



3.4.8 E-CHOUPAL

The e-choupal model had been specifically designed to take the challenges posed by the unique features of Indian agriculture, characterised by fragmented farms, weak infrastructure and the involvement of numerous intermediaries among others.

'E-choupal' also unshackles the potential of Indian farmer who has been trapped in a vicious cycle of low risk taking ability – low investment – low productivity – weak market orientation – low value addition – low margin – low risk taking ability. This made him and Indian agribusiness sector globally uncompetitive, despite rich and abundant natural resources.

3.4.8(a) THE MODEL IN ACTION

'E-choupal' makes use of the physical transmission capabilities of current intermediaries aggregation, logistics, counter – party risk and bridge financing while disintermediating them from the chain of information flow and market signals.

With a judicious blend of click and mortar capabilities, village internet kiosks is managed by farmers called sanchalaks – themselves, which enable the agricultural community to access ready information in their local language on the weather, market prices, disseminate knowledge on scientific farm practices, risk management, facilitate the sale of farm inputs (now with embedded knowledge) and purchase of farm produce from the farmers' doorsteps. Decision making is now information – based.

Real time information and customised knowledge is provided by 'e-choupal' so as to enhance the ability of the farmers to take decision and align their farm output with market demand and secure quality and productivity. The aggregation of the demand for farm inputs from

individual farmers gives them access to high quality inputs from the established and reputed manufacturers at the fair prices. As a direct marketing channel, virtually linked to the 'mandi' system for prices discovery, 'e-choupal' eliminates wasteful intermediation and multiple handling. Thereby it significantly reduces transaction costs.

Launched in June, 2000, 'e-choupal', had already become the largest initiative among all internet-based interventions in rural India. 'E-choupal' services has reached to more that 3.5 million farmers, who are growing a range of crops like soyabean, coffee, wheat, rice, pulses, shrimp in an over 31,000 villages through 5200 kiosks across the six states (Madhya Pradesh, Karnataka, Andhra Pradesh, Uttar Pradesh, Maharashtra and Rajasthan).[6]

The problems encountered while setting up and managing these 'e-choupal' are primarily of infrastructured inadequacies, including power supply, telecom connectivity and bandwidth, apart from the challenge of imparting skills to the first time internet users in remote and inaccessible areas of rural India.

3.4.9 MARKNET (Agricultural Marketing Intelligence Network in Maharashtra State)

The MSAMB has been established as MARKNET, as a network of APMC, in the state. Under this project, APMC, have been computerised and connected through the internet for the exchange of information. The first objective of this project is to provide daily arrivals and prices information to the farmers through APMC, and to assist them where the produce is to be sold for getting the better price or not. The second

[6] National Seminar on Restructuring the Agricultural Marketing (2006), P. 236.

objective is to automate the daily activities of the APMC by providing various software tools for better administration and effective functioning.

3.4.9(a) FUNCTIONING

Daily market arrival and price information is being entered into the computer at the APMC level and is being sent to the central communication server located at MSAMB through modem and telephone. The newly received information is processed automatically with the help of software installed on the server and the processed information is downloaded by the APMC for further dissemination through notice board and projection T.V. All the softwares are the menu driven with Marathi language interface.[7]

3.4.9(b) MERITS

- Market intelligence system has created awareness about the market information.
- The arrival and price information is available to the farmers through this network.
- Due to Cess Accounting System, Cess monitoring has become effective and it is helping to increase the income of APMCs.
- Monitoring of daily accounting work has become easier with the help of financial accounting software.
- Due to e-mail facility, communication between MSAMB and APMC has become fast and economical. Through the internet, the APMCs have access to worldwide information on agriculture and agricultural marketing.

---

[7] www.msamb.com

- Presently, MARKNET has 93 nodes (computers) all over the state. The work of computerisation and connectivity of remaining APMCs is the progress.

3.4.10 AGMARKNET (Participation in National Level Programme)

The MSAMB has participated in AGMARKNET scheme of the Director of Marketing and Inspection (DMI), New Delhi. The DMI is establishing a Comprehensive Market Information Network in the country. The daily arrival and price information at major markets of various states is made available through this portal. The State Agricultural Marketing Board, Pune is named as a nodal agency for the state Maharashtra to implement and monitor the scheme.

Under this programme, computer sets to 164 APMCs are made available free of cost. Similarly phasewise computer training programme is concerned to staff members.

During 29th November, to 4th December, 2004 such computer training programmes were organised at Alibag in Konkan Division. All the computers have been made functional and the data exchange had been started on regular basis.

3.4.11 WEBSITES

MSAMB has already launched the website that is **www.msamb.com**. In this website, information regarding activities undertaken by MSAMB is included. Besides, information regarding salient features of 275 APMCs is also incorporated. All information is available in Marathi and English version. On line intelligence service is the unique feature of this website.

Many other important websites provide information about the Agricultural Marketing, these are –

1. **www.marketinformation.com**
2. **www.marknet.com**
3. **www.agmarknet.com**
4. **www.mpkv.mah.nic.in**

3.5 CONCLUSIONS

Agricultural marketing in India and its various faces in the present context need to be re-evaluated considering the explicit and under-currents of globalised economies. Such re-evaluation exercise can rightly be undertaken under the framework of re-evaluation of several important facets of agricultural marketing. Such as credit, institutional support, exports, etc. IT can provide some of the most innovative and exceptional tools, usages in the field of agricultural marketing in general and export trade in particular. An attempt to enumerate various possibilities of IT usages in agricultural exports, in conformity with the domestic trade policies and international technological sophistication is made in this chapter.

IT can be utilized effectively for planning, analysis and policy-making with the help of computer-based information management systems, forecasting, modelling and other quantitative techniques. These are some of the ITs for central coordinating, planning agencies at the national or the state level. IT can be utilised by the trade organisations or state-owned, trade supporting organisations for order processing, export, import documentation, etc.

Computerised databanks and accessing to such information sources through high-speed networks is another contribution from the recent

revolutions in IT. The information form these sources can be utilised for exports promotion, long-term policy-making, research and training.