CHAPTER - II

OVERVIEW OF TELECOM SERVICES
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Introduction

"Aharnish Sevamhe" - A slogan beautifying the logo needs to be practiced. Non-stop, day-and night and Round the clock services promised but interrupted and stop-generating-services offered. Sophistication resulting into poor transmission and this much even in an age of info-tech turns everything paradoxical.

In the present day world, the information technologies have been successful in building a superhighway for communications. Knowledge is supposed to be the power-generating force. Communication technologies are found contributing substantially to the development processes. The process of socio-economic emancipation is now considerably governed by the quality of information technologies that use in the MIS. Of late, it was found information management an integral part of the decision-making process. Since software programming is now considered thought ware programming, the information technologies would continue to play an important role in the decision making processes. It is against this background that sophistications in the process of communication technologies getting an important place on the development agenda of almost all the countries.
In the armoury of management, communication acts as a lever spring. The accomplishment of organizational goals is found possible through the vehicles of communication. This is due to the fact that communication encapsulates multidimensional information, such as emerging trends in the business environment, mounting intensity of competition, inventions and innovations in the process of technological sophistication, changes in the governmental regulations and many other informations that may help a decision maker in making and innovating the decisions.

Communication offers tremendous opportunities for generating efficiency and accelerating the rate of productivity. It is considered communication a means not an end. It is all pervasive which helps the management in planning, organizing, staffing, directing and controlling. An organization is found efficacious in shaping the new perception of quality with the help of sophisticated info-technologies. With the development of satellite communication in the Indian perspective, it is found opening of new vistas of development. Computers, micro-computers, super computers, inter-net and intra-net service, e-commerce, telemarketing are to mention a few found very much instrumental in speeding up the process of development. It is in this context that marketing tele-communication services is found occupying a place of outstanding significance.
Telecommunication services play an incremental role in the multi-dimensional development activities. A well functioning telecommunications network is an essential component of economic infrastructure. The application of modern marketing principles in the telecommunication services would make ways for the generation of profits and at the same time would also make the services affordable to the users at large. The telecommunication organizations are supposed to market the services in such a way that a high level of efficiency generates a high level of profit.

In view of the above, were observed the following facts regarding telecommunications marketing.

- Telecommunications marketing is a managerial process that helps an organized development of the telecommunication services.
- It is an organized effort to formulate a sound marketing mix for the telecom services.
- It is a social process to help the individuals and institutions in activating the process of social transformation. Besides, the social costs shouldered and the subsidized and concessional services to be offered to the selected segments of users are given due weightage.
• It is a planned development process that makes possible an optimal development of telecommunication services.
• It is a device to develop a new perception of services by offering innovative, competitive and profit-oriented services.
• It is a customer-satisfaction-engineering that makes possible an in-depth study of the changing behavioural profile of different categories of users and incorporates necessary changes in the service portfolio accordingly.

The Product Mix

With the development of sophisticated communication technologies, we find a big change in the service profile of telecommunication organizations. On the one hand the telecom organizations feel that the services are quite satisfactory while on the other hand we find increasing cases of dissatisfaction among the users. This makes it essential that we make sincere efforts to improve the quality of services. In Figure 2.01, service mix of telecommunications organizations is presented.
THE COMMUNICATION SYSTEM IN INDIA

Postal System in India

Since 1950-51, the postal network has been expanded throughout the country, and in recent years, with special emphasis on the rural, hilly and remote tribal areas. With more than 1.5lakh post of offices, the postal network in India is the largest in the whole world. The long term objective of the Department of Postal Services of the Government of India is to locate office within three Kms of
every village and to provide the facility of a letter box in every village with a population of over 500. At present, it is estimated that there are approximately 1,10,000 Gram Panchayat villages which do not have a post office. The Postal Department seeks to provide basic postal services on a contractual basis by utilizing the existing infrastructure of Panchayats in these areas. This scheme-known as the Panchayat Sanchar Sewas Scheme, - has been recently introduced by the Government and it has the twin advantage of (a) providing postal services to needy areas with less Government expenditure and (b) generating employment opportunities in such areas.

The postal department has given a new thrust to its programme of modernization for providing new value added services to customers. This included:

a. A programme of computerized services of such postal operations as mail processing, savings bank and material management.

b. Introduction of Metro Channel Service linking 6 metros.

c. Introduction of Rajdhani Channel linking Delhi with most of the State Capitals; and

d. A business channel with exclusive treatment to pin coded business mail.
In recent years, there has been healthy growth in many lines of postal activity, such as speed post traffic, postal life insurance which how covers over 2 million policies with a sum assured of nearly Rs.5,000 crores, extension of postal life insurance and Post Office Savings Banks to rural areas, etc.,

In line with the general trend of liberalization and privatization, the Government of India has adopted certain policies to reduce its monopoly control on carriage of letters. For instance, it is according a formal status to the private courier service. It is also considering a proposal to allow the private sector to get into the system of postal stationery as an agency function.

A worrying aspect about the postal department is that it is working under continuous deficit—it was nearly Rs.340 crore during 1994-95. It can be made commercially viable with a careful planning but this is lacking at the top level of postal bureaucracy.

**Indian Telegraphs**

Indian telegraphs is one of the oldest Government owned public utility organization in the world. The number of telegraph offices has increased from 8,200 in 1951 to over 30,000 now. The phonogram service for sending and receiving telegram by telephone, telex service to send and service printed message directly from one
centre to another, the tremendous expansion of telephone facilities and direct trunk dialing—all these facilities are available to the general public.

**Telecommunications**

Is important not only because of its role in bringing the benefits of communication to every corner of India but also in serving the new policy objectives of improving the global competitiveness of the Indian economy and stimulating and attracting foreign direct investment.

There has been a phenomenal growth in the telecommunication sector after 1995. The telecommunications network of the public sector (BSNL and MTNL) is one of the largest telecommunication network in Asia with a capacity of 50 million lines and over 40 million working connections comprising 35,510 telephone connections has been increasing steadily from about 10 per cent in 1988-89 to 30 per cent in 1999-2000 and 17 per cent during 2001-2002. The number of new telephone connections provided during 2003-2004 alone was 22 million— which was equal to the total number of phones installed as of 1999.

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of cellular subscribers. From a mere 0.3 million cellular subscribers in March 1997, the number increased to 6.4 millions as on end-March 2002 and 36 million by end-October 2005. Cellular telephony has become the most preferred mode of communication among the Indian public, as capital costs of mobile telephony are lower.

**New Telecom Policy, 1999**

There was considerable confusion in the provision and management of telecom infrastructure and telecom services. The Department of Telecom Services (DTS) and Department of Telecom Operations (DTO) were two service providing departments. The Mahanagar Telephone Nigam Limited (MTNL) and Bharat Sanchar Nigam Ltd (BSNL) were two public sector companies providing basic telephonic services in Delhi and Mumbai (MTNL) and in the rest of country (BSNL). The (BSNL) was set up in October 2000 under the new Telecom Policy, 1999 to provide all the services provided by DTS and DTO.

During April-December, 2000 there was a growth of 29.8 percent in terms of new connections provided during the current year. The ongoing reforms in the sector were ahead of the schedule. The two service providing Departments of the Telecom sector were corporatised, viz., Department of Telecom Services (DTS) and Department of Telecom Operations (DTO). A public Sector company
"Bharat Sanchar Nigam Ltd." (BSNL) has now taken up all service providing functions of these two Departments with effect from October 1, 2000. The company has an authorized capital base of Rs.10,000 crore with a paid up capital of Rs.5,000 crore. This initiative is expected to provide a level playing field in all areas of telecom services between government operators and private operators. The Department of Telecom (Telecom Commission) is now left with the functions of policy formulation, licensing, wireless spectrum management, administrative monitoring of PSUs, research & development and standardization/validation of equipment, etc. Having shed direct responsibility of service providing functions, the Telecom Commission will now be able to devote greater attention to urgent issues facing the Telecom sector as a whole including the private sector. This, in turn, will boost investors confidence facilitate greater investments and speedier development of a multitude of services, supported by a strong infrastructure.

The telecommunication network of the public sector (BSNL and MTNL) is one of the largest telecom networks in Asia. It has a capacity of 35 million lines and 28.4 million working connections comprising 28,936 telephone exchanges in the country as on October 31, 2000. During 1999-2000, the switching capacity witnessed an increase of 40 percent over the proceeding year. Approximately, 4.9 million new connections provided in 1999-2000.
Similarly, capacities in Trunk Automatic Exchange (T/X), microwave and optical fibre network were considerably enhanced. The value of equipment production increased to Rs.10,760 crore in 1999-2000 from Rs.10,000 crore in 1998-99. The telecom export have also increased to Rs.3,747 crore in 1999-2000 from Rs.2,909 crore in 1998-99.

Eight licences for Cellular Mobile Telephone Service in the four metro cities were issued to eight companies in November 1994. Since December 1995, 34 licenses for 18 territorial telecom circles were also issued to 14 companies. Services have been started in all the metro cities and select cities in 18 Telecom Circles. The public sector companies, viz., BSNL and MTNL are also planning to introduce Cellular Mobile Service in their respective circles. MTNL has entered as a service provider of cellular mobile service in Delhi. The BSNL has decided to introduce the cellular mobile service as a pilot project in five telecom circles covering 27 cities in Andhra Pradesh, Tamil Nadu, West Bengal, Bihar and Punjab. Thereafter, the services will be expanded in a phased manner all over the country.

There were about 2.6 million cellular subscribers in the country as on September 30, 2000. The service is now available in 648 cities/towns in the country. The number of cellular subscribers has almost doubled during the preceding year, i.e., from 1.4 million
as September 30, 1999 to 2.6 million as on September 30, 2000. Thus, the number of cellular mobile subscribers in the country has been growing at a very rapid pace. The share of the cellular mobile subscribers in the total telephone subscribers (fixed line and mobile) has gone up from 5.8 percent in September 1999 to 8.6 percent as on September 30, 2000.

The National Telecom Policy (NTP) 1994 had envisaged the objective of the public call office (PCO) for every 500 persons in the urban areas. As on October 31, 2000, there were 7,40,000 PCOs working all over the country. The PCO population ratio as on March 1, 2000 is one PCO for 383 persons of urban population on all-India average basis. Further, as per the new Telecom Policy, every village was to be provided with one public telephone. This target was also rescheduled and is expected to be completed by the end of the Ninth Five year plan. Accomplishment of this task is the responsibility of both the BSNL as well as the licensed private operating companies. As per terms of the license agreement, private operators have to provide a minimum of 10 percent Direct Exchange Lines (DELs) as Village Public Telephones (VPTs). Out of total 6,00,000 villages in the country, 3,80,000 villages were provided with public telephones by the end of October, 2000. During 1999-2000, a total of 33,965 villages were provided with telephone facility and during the current year 2000-2001, it is proposed to provide 1,00,000 VPTs.
According to the New Telecom Policy (NTP) 1999, the Government has opened the National Long Distance Service to private operators without any restriction on the number of operators with effect from August 13, 2000. The Government has also issued guidelines for license to infrastructure provider-II (IP-II) for leasing/renting/renting out/selling end-to-end bandwidth. For infrastructure provider-I (IP-I) providing assets such as Dark fibers, Right of Way. Duct space and Tower, no formal license is required. They are only required to be registered as IP-I.

With a view to supplementing the efforts of public sector service providers, viz., BSNL and MTNL and to ensure greater competition in providing the basic telephone services, companies registered in India are being licensed to plan, install, operate and maintain the basic services. Six companies have so far signed the license agreement with the Government for providing basic telephone services in the country. These services are being provided in the states of Andhra Pradesh, Rajasthan are being provided in the states of Andhra Pradesh, Gujarat, Maharashtra, Madhya Pradesh, Rajasthan and Punjab. All the six licenses have started functioning in their respective circles.
Recent Developments in the Telecom Sector

- A revenue sharing in place of existing fixed license fee introduced for both basic and cellular service operators.
- A fourth cellular operator in all the circles would be permitted.
- Additional basis service operator would also be permitted.
- Licenses are to be issued to ISPs for setting up of submarine cable landing station for international gateways for internet.
- ISPs would be given approval for setting up of international gateways for internet using satellite as a medium.
- National long distance service opened up for unrestricted entry.
- Two categories of infrastructure providers, viz., infrastructure providers category II to provide end-to-end hand width and infrastructure provider, category-I to provide dark fibre, right of way, towers, duct, space, etc., have been allowed.
- Termination of monopoly of VSNL for International Long Distance (ILD) service has been preponed to March 31, 2002 from March 31, 2004.
- Limited mobility to fixed service providers in the form of Wireless in Local Loop (WILL).

In the New Telecom Policy (NTP), 1999 the payment of license fee based or revenue share will be more rational in place of fixed license fee to be paid upfront. Accordingly, to make the system
uniformly applicable, the licenses of Pre-NTP-99 days have also migrated to the revenue sharing mode of license fee payment. The period of license has been enhanced to 20 years. Another notable feature of the migration package is that as against the existing arrangement of two private operations and BSNL or MTNL as third operator in cellular services, there will be multiple operators. This will promote greater competition. MTNL and BSNL have been given license for operation of technology neutral cellular mobile telephone service in their respective circles.

Upto November 15, 2005, 436 licenses were issued to Internet Services Providers (ISPs), of which 50 IPSs have been given approval in principal for setting up of International Gateways for Internet using satellite as a medium. Applications were also invited from the ISPs for setting up of submarine cable landing stations for international gateways for Internet.

BSNL is providing access to the nearest Internet node on local call basis in all the district head-quarters in the country. BSNL is also in the process of establishing a National Internet Backbone (NIB) for carriage for Internet traffic. The Internet access nodes have already been set up in 252 Secondary Switching Areas (SSAs) in the country. In fact, the three service PSUs, viz., BSNL, MTNL and VSNL are operating 292 Internet nodes in the country.
The terms and conditions of license agreement or providing Global Mobile Personal Communications by Satellite (GMPCS) service are under finalization, taking into account the recommendations of TRAI on entry fee, quantum and structure of license fee as revenue share and other terms and conditions. In this regard, five License Agreements with four companies have been signed. License for voice-mail and audiotex have been granted on non-exclusive basis and the services are operational in three cities, viz., Mumbai, Kalyan and Bangalore.

Consistent with the worldwide trend and keeping in view the market reality, Indian telecom sector has also rebalanced the tariff structure. The first phase of rebalancing was done from May 1, 1999 when long distance STD and ISD tariff were reduced of society, by about 23 per cent on average. At the same time, in order to encourage spread of basic telephony, the Department of Telecommunications decided not to increase the rental and call charges for the rural subscribers and low calling urban subscribers with calls upto 200 per cents. The tariff rebalancing exercise had done in the second phase to tariff rationalization with effect from October 1, 2000 has further reduced long distance STD rates by an average of 13 per cent for different distance slabs and ISD rates by 17 per cent. Though the rebalancing exercise has put the revenue streams under stress,
the operators are expected to bring about greater efficiency and reduce the averse impact of rebalancing.

**Legislation in the Telecom Sector**

The Government introduced the Communication Convergence Bill. 2001 in parliament, with the purpose of promoting and facilitating the carriage and content of communications (including broadcasting, telecommunications and multimedia) in an orderly manner. The Bill also envisages the setting up of a regulatory and licensing authority known as Communications Commission of India (CCI).

The telecom sector has kept two important goals to deliver:

(a) low cost voice telephony to the largest possible number of individuals; and

(b) low-cost high speed computer networking to the largest number of firms. The progress of the telecom sector in India since 1995 has been quite impressive.
**Growth of Connections**

As on 31st January, 2006 the number of cell phone connections with major companies were:

<table>
<thead>
<tr>
<th>Company</th>
<th>Number of Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Tel</td>
<td>1.73 Crores</td>
</tr>
<tr>
<td>BSNL</td>
<td>1.53 Crores</td>
</tr>
<tr>
<td>Reliance</td>
<td>1.38 Crores</td>
</tr>
<tr>
<td>Hutch</td>
<td>1.37 Crores</td>
</tr>
</tbody>
</table>