Chapter 1
Introduction

1.1 Background

Over the past two decades governments across the developing world have came to recognize the importance of developing and maintaining adequate and efficient infrastructure services - as well as severe implications of falling behind in the provision of these services. Findings of the fast growing developing countries reveal that their infrastructure capacities are not keeping pace with the growth of other sectors. Other developing countries, further behind on the path, faces more severe constraints because of the past neglect in the creation and maintenance of infrastructure facilities.

The Indian economy is currently undergoing a structural shift. The production of merchandise such as agriculture and manufacturing products are contributing a smaller share of economic output, while contribution of the service sector is growing. A majority of service workers are engaged in the creation, processing, and distribution of information. Telecommunication department therefore assumes a major importance as an enabling infrastructure. The telecommunication sector in India has witnessed rapid changes and growth in the last few years.

Conceding telecommunications to be an infrastructure necessity and a priority area in India would have been considered a profanity five decades ago, pretence four decades ago, a revelation thing three decades ago, a case of necessity two decades ago and an urge a decade ago. Today it is a do or die situation as far as the infrastructure needs are concerned. The development account in telecom sector in India, since independence can be summarized as that of impressive achievements coupled with glaring short comings.

Importance of telecommunication as defined in preamble in New Telecom Policy 1999; The Government of India recognizes the provision of world-class telecommunications infrastructure and information as the key to rapid economic and social development of the country. It is critical not only for the development of the Information Technology (IT) industry, but also has widespread ramifications for the entire economy of the country. It

is of vital importance to the country that there should be a comprehensive and forward looking telecommunications policy, which creates an enabling framework for the development of this industry.

Telecommunications arrived in India in 1851. After independence government took charge of the network, and Indian Telegraph Act of 1885/IT Act and Indian Wireless Act started regulating the same. With the Ministry of Communication (MOC), telecommunications was considered under the preview of Post and Telegraph Department. The telecommunication visionary of India for information strategy - Pitroda, S. set up C-DOT. It was to achieve self-reliance in developing appropriate telecommunication technology, so that it did not utilize its scarce foreign exchange to import telecommunication equipment.

At the beginning of the seventh five-year plan in 1985 government began to improve the staggering telecommunication sector and hence the Department of Telecommunication (DOT) was formed to maintain, administer operations; and develop the telecom services. During later years Mahanagar Telephone Nigam Limited (MTNL) and Videsh Sanchar Nigam Limited (VSNL) were formed in 1986, as an operating company for Delhi and Mumbai metropolitan cities and for international services respectively.

To promote rapid development in all aspects of the sector, including production, services, technology and finance, the Telecom Commissions replaced The Telecommunications Board in 1989. This had the specific mandate of preparing policies and plans that would accelerate development of telecommunication - technology, equipment, services, etc. however, the commission's chairman and its full-time members continued to be from DOT.

The telecom policy announced in 1994 sought to transact the highest priority to the development of telecom services in the country and therefore laid down the basis for reforms in telecommunication sector. The objectives of the policy were as follows:

- Telecommunications for all and within the reach of all.
- Achieve universal service, covering all villages as early as possible.

- The quality of telecommunication services to be of world standard.
- Enable India to emerge as a major manufacturing base and a major exporter of telecommunication equipment.

In pursuance of the above objectives, following targets were set:

- Telephone on demand by 1997.
- All villages to be covered by 1997.
- A Public Call Office (PCO) for every 500 population in urban areas and
- All value added services available internationally to be introduced in India, well within Eighth plan period, preferably by 1996.

With the beginning of new era, governments decided to grant franchise for Cellular Mobile Telephone Services (CMTS) for four metropolitan cities and in 1992 tender documents were made available by DOT. Eligibility (foreign equity, experience, debt equity ratio, foreign exchange, licensing period, technology etc.) and selection criteria were laid well in advance. Rental was given the highest weightage (50 percent), i.e. the lowest rental was to carry the highest marks. The balance weightage was divided among the various other parameters. 30 bidders submitted the technical bids by March 31, 1992 and 14 bidders were asked to submit financial bids in August 17, 1992. Eight companies (two in each metropolitan city) signed the agreement with the government on November 30, 1994, and first mobile phone service was commenced in August 15, 1995. Monthly rental for consumers varied between Rs. 156 to Rs. 575 to cover the expenses of license fees.

DOT divided the whole nation on the basis of twenty circles categorized as circle A, B, and C. In January 1995, tenders were issued for mobile phone services in all the circles. Norms and rules for the bidders were laid after well analysis of the market situation on the basis of first licensing process. Since two operators were to be licensed for each service area, the second operator had to match the license fee payable by the first operator.

In all, 32 groups of players submitted 169 bids for 18 circles, excluding the 2 circles of Andaman & Nicobar and Jammu & Kashmir. The results were announced in August 1995. Only one license was issued for West Bengal and Assam. Gujarat state was included in circle A and Birla AT&T (Idea Cellular Limited) and Fascel (Hutch) won the tenders as first and second mobile phone service providers respectively, after paying total license fee of Rs. 1,794.10 crore and first year license fee of Rs. 161.3 crore.

Airtime charges per minute (ceiling) was decided as Rs. 16.80 for peak time, Rs. 8.40 for standard and Rs. 4.20 for off–peak times. Also call charges from Public Service Telephone Network (PSTN) to mobile phone, Mobile phone to PSTN and Mobile phone to mobile phone were fixed. Receiving Party Pay (RPP) norm was set for all calls (incoming as well as outgoing) on mobile phones.

During the same period with a view to implement the efforts of public sector service providers and to ensure greater competition in the sector, basic telecom service in 21 circles, Radio Paging Service (RPS), Internet services were introduced in the nation and DOT followed the bidding process for introducing private service providers for all these services. Telecom Regulatory Authority of India (TRAI) was formed in 1997 to deal with the interrelationship between service providers, regulate revenue share arrangement between service providers and to settle the disputes between the service providers. Later in 2000 TRAI was restructured with its constitution, powers and functions, appeals and the settlement of disputes issues. From time to time, till date TRAI publishes consultation papers on important issues, after an open house discussion among mobile phone service providers, government authorities and consumers.

Some of the targets as envisaged in the objectives of National Telecom Policy 1994 (NTP 94) remained unfulfilled. In recognition to this need, New Telecom Policy 1999 (NTP 99) was announced. Availability of affordable and effective communication for the citizens is at the core of the vision and the goal of the NTP 99. The new policy framework for mobile phone service providers was issued.

- Direct interconnectivity between licensed mobile phone service providers and any other type of service provider in their area of operation including sharing of infrastructure with any other type of service provider shall be permitted.
- Redefine the competitive scenario by introducing more than two CMSPs in every region of operations.
- Create an environment for the continuing flow of investment into the Indian telecom sector.
- Interconnectivity between service providers in different service areas shall be reviewed in consultation with TRAI.
- The mobile phone service provider shall be allowed to directly interconnect with VSNL after opening of national long distance from January 1, 2000.
- Mobile phone service providers shall be permitted to provide mobile telephony services including permission to carry their long distance traffic within their service area without seeking an additional license.

The cumulative impact of the NTP 99 was the lowering of tariffs for consumers. Further announcement under NTP 99 allowed existing mobile phone service providers to switch from the previous license fee regime to a new revenue sharing arrangement.

Third mobile phone service provider was allowed to enter in the telecom sector and this entry was reserved for MTNL and Bharat Sanchar Nigam Limited (BSNL). MTNL started its services during February 2001 and BSNL was launched nationwide in 2002-2003. And during the same time period i.e. 2001 tenders for the fourth mobile phone service provider was invited for all the circles and metropolitan cities. Almost all four service providers started their services by 2002. Bharti Airtel Limited was introduced in the Gujarat circle as the fourth operator.

With a view to providing termination charge for mobile phone services and to enable introduction of Calling Party Pay (CPP) regime the interconnection usage charges (IUC) regime was introduced in 2003-2004. Unified licensing was issued (including basic and mobile phone service providers) within the service areas in November 2003. Reliance

Infocom and Tata Indicom were issued the licenses as Universal Service Obligation (USO) and also Bharti Airtel Limited was included in it for the Gujarat circle.

Dispersion of mobile phone was among the fastest of any technology in history. In all four Global System for Mobile Communication (GSM) service providers and two Code Division Multiple Access (CDMA) service providers were available in Gujarat circle. Tariff rates, brand expansion, quality of service, coverage level and pricing trend has improved and is monitored by regulatory authorities from time to time.

Communication services are rapidly expanding and have contributed as Rs. 2,16,900 lakhs as State Domestic Product in the year 2003-2004 in Gujarat circle. Total number of mobile phone service consumers makes the picture clearer about the growth and acceptance of the same in Gujarat circle. In the year 2003 as on 31st March total number of consumers was 10,45,226 followed with an increase of 49.58 percent in the year 2004 and 32.88 percent in the year 2005. As on March 31, 2005 total mobile phone consumers in Gujarat circle was 30,88,645.

In the light of above observations, here an attempt is made to analyze the behavior of consumers of Vadodara district towards telecommunications services, specifically mobile phone services. As the mobile phone services are the most upcoming telecommunication services all over the world. India has the second highest number of mobile phone consumers in the world followed by China.

With the increase in the rate of acceptance of mobile phone services, competition has also increased. As a result of this, the number of consumers is increasing along with the number of service providers and services. Similar trend is applicable all over the country. The present study reveals the importance of mobile phone services in day-to-day life of the consumers of Vadodara district.

1.2 Objectives of the Study

The present study seeks to analyze various aspects of consumer behavior towards mobile phone services and marketing strategies of mobile phone service providers, from the consumer point of view. The specific objectives of the study are as follows:

1. To track the development of mobile phone services in India.
2. To examine how the laws are implemented for the telecommunication services, especially mobile phone services.
3. To access the consumer behavior towards acceptance of mobile phone services in their day-to-day life.
4. To identify those socio economic factors, which have raised the awareness in society, for mobile phone services.
5. To closely analyze the effect of socio economic factors on the usage pattern of mobile phone services.
6. To evolve guidelines to formulate an appropriate policy framework which can provide measures to promote the quality services in the telecommunication sector.
7. To study the marketing strategies opted by mobile phone service providers.

1.3 Hypothesis of the Study

In the light of theoretical and empirical research on consumer behavior toward mobile phone, certain hypothesis is formulated for the present study.

1. Younger age mobile phone consumers are comparatively more aware about the additional services of the gadget.
2. Possession of fixed landline phone connection is influenced by the variable calculating standard of living.
3. Educational qualification of the mobile phone consumers affects the usage pattern and the opinion about the mobile phone services.
4. Telecom services i.e. fixed landline phone and mobile phone services, are complementary services.

1.4 Data Source and Methodology

The study is based on both primary and secondary data collection method. Primary data is collected by the researcher personally from the mobile phone consumers, using a structured questionnaire. From Vadodara district five talukas are selected for detailed

study. These are: Dabhoi, Padra, Savali, Vaghodia, and Vadodara. The sample is of 1,250 respondents. The survey was conducted in the month of May-July 2005.

Collected information is analyzed with the help of statistical and econometric methods. These are mainly Regression analysis and Linear Probability model (LPM).

1.5 Chapter Scheme

This study is organized in seven chapters.

Chapter 1 is the introductory chapter. Chapter 2 reviews the basics of consumer behavior. Concept of consumer behavior is highlighted here. Various consumer behavior models are discussed. Important factors including consumer behavior, in terms of economic and non-economic aspects are also reviewed here.

Chapter 3 presents the overview of the telecom sector. Short history of the period immediately after the introduction of economic reforms is provided and this is followed by a description of the policy framework. Mobile phone evaluation, emergence of mobile phones in India, and all the development in the telecommunication services have been emphasized here. Major policies and regulations laid by the government for the telecommunication services with special emphasis on mobile phone services along with its present and future scenario in Indian economy are presented here.

Chapter 4 brings forth the socio economic condition in general and of the respondents in the study area in particular. An attempt has been made to understand the structure of the society of mobile phone consumers. Also the geographical perspectives of all the selected representative talukas of Vadodara district are studied. Brief review of literature i.e. work on mobile phone usage pattern is studied here, which emphasis on all the socio economic conditions. Studies included are irrespective of the place but only those, emphasizing the mobile phone usage pattern after millennium has been given weightage as present study calls attention to the acceptance of innovative technology in present daily life.

Chapter 5 analyzes the various hypothesis set well in advance to study the impact of mobile phone services on the consumers of Vadodara district. Socio economic factors

and the consumers' usage pattern are examined. Important demographic factors studied in detail include: age, occupation, marital status, educational level, composition of family, and standard of living. All these factors have been studied with the help of statistical and econometric tools.

Chapter 6 presents the, Market structure by discussing the profile of mobile phone service providers i.e. their objectives and visions along with the market strategies for pricing and promotional policies, have been discussed from government and consumers point of view. Tariff plans as implemented by TRAI's Telecommunication Tariff Order 1999 (TTO 1999) and the amendments in TTO 99 are studied in detail. A reasonable guideline issued to mobile phone service providers to obtain and maintain a competitive advantage in the market place by government is included here.

Finally, main findings have been summarized in chapter 7. Some of the important future guidelines for the mobile phone service provider and consumers are suggested.