

# CHAPTER - ONE

## INTRODUCTION

### 1.1 Focus of the Study

Needs and wants of human beings give the real birth of products, The activities involved in satisfying customers by providing such products and services according to their needs may be term as 'Marketing'. In this context Philip Kotler, defines marketing as "A human activity directed at satisfying needs and wants through exchange processes". According to A.MA (American marketing Association), "Marketing is the process of planning and executing the conception pricing, promotion and distribution of ideas, goods and services to create exchange that satisfies individual and organizational objectives." In modern business age it is said that consumers are the king of business. The success and failer of any marketer depends upon the degree of consumer satisfaction. So marketers should know the types of consumer behavior, which can help to identify the right promotional strategy. Consumer need and wants are fulfilled by the marketer through exchange process by integrating various marketing activities like marketing mix 4ps (Product, price, places and promotion)

Focus	Means	Ends
Study of consumer needs and wants	Integration of marketing activities. Management of 4ps exchange processes	Fulfillment of organizational goal through consumer satisfaction.

Therefore in summary marketing activities begin with the identification of consumer needs run through manufacturing, pricing, promotion and distribution activities end with fulfillment of organizational goal through consumer satisfaction.

Since both the product and services are the subject matter of marketing. This study is also concerned with the product (cellular G.SM mobile phone) and service (communication facilities existing on ) that marketed by Nepal Telecom (N.T) in Kaski district. Before describing about mobile phone and it's services it is necessary to know what communication is and it's importance's at all. Communication refers to the share or exchange of ideas, feelings, emotions, news and information. It promotes not only economic activities but also reduce the cost of coordinating and Implementing development projects by mobilizing of labour force effectively. Like as trade industry and commerce depends on efficient communication system. (G.SM) mobile phone has played very important role in modern business age'. 'Mobile Phone' is an electronic wireless radio equipment based on digital cellular technology by means of which two - way conversation can be done with any other telephone subscriber either of mobile telephone network or public subscriber telephone network (PSTN). The main feature of mobile telephone is it's mobile nature i.e one can carry the mobile set wherever he wants to go and can talk with other parties at any time he likes.

Nepal Tele communications corporation (N.T.C.) introduced mobile telephone from Chaitra 2055 targeting four major cities, they are Kathmandu, Pokhara, Birgunj and Biratnagar. The mobile telephone existing today into Nepalese market is based on "GSM" cellular mobile technology, which refers to the "Global system for mobile communication" and this technology as well as mobile exchange and other accessories were purchased from "Nortell Company" of Canada.

This mobile service is said to be 'cellular mobile' since it consists of several cell stations within the target mobile telephone areas. Such cells are installed to provide qualitative and secure service to it's customers. For a complete call the mobile telephone holder must be in frequency coverage area of such cell stations.

In first phase of mobile telephone service, N.T.C is launching 10,000 mobile lines in the for above- mentioned cities. Among this N.T.C had planned to distribute 6000 mobile lines in Kathmandu valley, 1200 lines in Birgunj and 1400 lines each Pokhara and Biratnagar in 2055 B.S.

### **1.1.1 An Introduction of Nepal Telecom**

Nepal Telecom is established in 2060 B.S under the company law 2052 B.S. with the view of development the Telecom as the field of free and competed serviceable sectors, The private sector also involving with in it. It has done under the 2060 B.S, law of Doorsanchar service. After changing Doorsanchar service into Nepal Telecom, it has been conducting it's own works with the view to promote it's aim and provide quality service.

In 1960 B.S Doorshanchar service was initiated with the name of magneto Telephone service in Nepal. It was the first step of Doorshanchar in Nepal though it was initiated from a few restricted place and it's service was started from 1960 and has been opening for the public only after 1992 B.S

Mohan Shamsheer started broadcast service in 2005 B.S in Nepal. It's office was called Broadcast Head office. After that the Telephone and broad cast head office were Joined together under the ministry of communication and Transportation. This department was changed into Doorshanchar committee in 2026 B.S.

According to company law 2028 B.S Doorshanchar committee was changed into Doorshanchar limited in Ashad 1-2032, with the view of providing easy, comfortable and low cost services for public. To decrease the ownership of Nepal Government and give opportunity to private companies. It had distributed 5 percent share to its own staffs an 3.5 percent to public. At present time N.T. (Nepal Telecom) has thirty four thousand share holders.

With the motto of "Nation Building" it has been increasing it's service to all and now it has extended it's service all most all round country. Nepal

Government has the goal of economic development by providing the quality service through modern technology. So Nepal Telecom play the vital role to fulfill such aim. Nepal Telecom step forward to provide the Doorshanchar service to all people and all regions of the country. So it has great attempt for Nation building.

Due to the highly competitor market it gets the opportunity of present its quality service to us. So competitive market provides it not only the difficulties but also the opportunity of exhibits it's quality service. So, now it is the time to consider the customer's complain information and make it's service as equal as the international level.

Doorshanchar Company has done the following successful business service during the last five years

According to the market expanse data, it gets success to increase its customer number in 32,00,000 lakh from 4, 22,000, during the last five years. In the fiscal year 2060/61 B.S it's total income was Rs.8, 8,30,00,00,000 it increases Rs. 17,10,00,00,000 in the fiscal year 2064/65 (un-audited). Now it establishes it's P.S.T.N service in 75 districts and it establishes it's G.S.M and C.D.M.A technology in 75 district under it's fundamental services. Due to it's modern Technology, it's working staff number also decrease and provides the service for 1000 (One thousand) line by only two staffs which is in 1000:13 before five years. And it has also complement to provide various services in- minimum cost. So at last we can say that Nepal Telecom is one of the most popular serviceable company which provides the communication service for all who live in any corner of the world.

Since the history of mobile telephone in the world is not became so old and in the Nepalese context , it is running through the period of nearly ten year. Some research has been carried out up this period for the study of mobile telephone. No research has been carried out up to this period for the study of service

marketing and consumer behavior of cellular G.S.M mobile phone in Kaski district. Thus it will be the first research on 'service of mobile phone in Kaski district. Being the first study this research tries to analyze the marketing approach of N.T (Nepal Telecom) providing mobile telephone service and the consumers response towards it, which will be highly beneficial to N.T in providing qualitative service and getting positive response from the customers it will also helpful to other scholars and researches to carry out further research on it.

## **1.2 Statement of the Problem:**

Nepal Telecom (N.T) at present provides, communication services to all over the country. Since the 77 percent of total area of the Nepal are high hills and snow capped mountains and only 23 percent is the flat land of Terai, such extreme topography and weak infrastructure have made task of providing basic telecommunication facilities more difficult.

Though the top most priority of N.T is to provide basic telecommunication facilities to the public at reasonable prices. In the present context it has also cope with the demand of customer for better and new services. The rural people in one hand wish to have services in their villages, and on the other hand the urban people expect the new service to land at their doorstep. In recent years the telephone demand has swollen up rapidly in the cities as well as the villages directed towards the urbanization. Although the demand of telephone is increasing but the services of N.T is not covering to the increasing demand of telephone.

Thus the huge gap between demand and N.T's existing capacity increase the public dissatisfaction to a large extent still, there are many waiters those waiting for a decade to have a telephone connection to their home and on the other hand the customers who are using telephone service from last few years are facing various problems like delay on shifting it from one place to another, delay on maintenance, billing of telephone calls etc. Also the opening of

distribution area is also inconsistent and the distribution policy properly matches with the public want and desire.

Since the world today is using very new and recent technologies in the field of communication service, Nepal too is not exception to this. Thus in recent years the people of few cities specially Kathmandu, Birtnagar, Birgunj, and Pokhara etc. due to extensive urbanization as well as the cities being hub of all economic activities demanding advanced communication facilities. In the context of fulfilling such demand N.T.C (At present N.T) is introducing "G.S.M mobile service as a new service in Nepal from dated 2055 Chaitra.

This research problem is concerned with the service marketing and consumer behavior of cellular 'G.S.M' mobile phone in Kaski district. Kaski district is in western development region of Nepal. It is also in Gandaki zone. In Kaski district there are forty there (43) VDCs, four election regions. Pokhara 'sub-metropolitan city' and Lekhnath, Municipality are also in Kaski district. Pokhara is rich in natural beauty, famous as a heart of all Nepalese citizens. There are many cultures, religions and different income level group of people in Kaski district. Pokhara is in the base of Annapurna and Machhapuchhre mountains. Fewa Lake is also in Pokhara. Like as Begnas, Rupa Lake and some other lakes are also in Kaski district. The area of the Kaski district is 2017 square kilometers. The area of Pokhara is 55.22 square kilometers. According to census survey 2058 the total population of Pokhara is 1,56,321.

Thus every work need to be done to fulfill the objectives. To meet the objectives different problems should faced. This study of research problem in general is to examine the service marketing and consumer behavior of cellular 'G.S.M' mobile phone in Kaski district. The main specific research problems are given below:

- a) What is the marketing approach of N.T for service marketing of cellular (G.S.M) mobile in Kaski district?

- b) What is the promotional strategy of N.T about cellular (G.S.M) mobile phone service in Kaski district?
- c) What available facilities are mobile phone users using with mobile phone in Kaski district?
- d) What is the opinion of mobile phone users with reference to deposit amount, tariff rate and billing system in Kaski district?

### **1.3 Objectives of the Study:**

The objectives of the study in connection with the forgoing problems are as follows:

1. To find out marketing approach of N.T for service marketing of cellular (G.S.M) mobile phone in Kaski district.
2. To know the promotional strategy of N.T about cellular (G.S.M) mobile phone service in Kaski district.
3. To know about the types of facilities that is used by cellular (G.S.M) mobile phone users from cellular (G.S.M) mobile phone service in Kaski district.
4. To take the opinion of cellular (G.S.M) mobile phone users with references to deposit amount, tariff rate and billing system in Kaski district.

### **1.4 Importance of the Study:**

Since the subscribers or users of mobile phone can take many facilities than the ordinary telephone subscribers. In modern business age the importance of cellular 'G.S.M' mobile phone is continuously increasing. A person who lives in any place, can easily take voice, ideas and feelings from the others by the help of mobile phone in the world.

His Majesty's Government (H.M.G) of Nepal also established a separate body named "Nepal Telecommunications Authority" on Falgun 2054 B.S. Providing it full authority of regulating and controlling mechanism. This Authority made

rules and regulations and started to invite and registered private parties for the distribution of new communication services like pager, W.L.L mobile phone etc. At that time N.T.A. had given permission to Khetan Group Pvt. Ltd for the commencement of mobile telephone into Nepalese market and this group was expressing it's commitment to operate mobile telephone service from 2058 Baishakh.

Now, Nepal Telecom (N.T) is established in 2060 B.S under the company Act 2052 B.S with the view of developing the telecom as the field of free and competed serviceable sector, the private sector also involving within it. The vision of Nepal telecom is to remain a leading player in telecommunication sector in the country while also extending reliable and cost effective services to all. The Goal of Nepal Telecom is to provide cost effective telecommunication service to every nook and the corner of the country.

Therefore at one side N.T is effectively operating it's activities in distributing the new communication services to fulfill the growing demand of customers and on the other side, many private parties are launching their services in Nepal.

To get success in such a situation this study provides valuable guidelines to N.T (Nepal telecom) in making their new strategy in providing qualitative service. Similarly the other outside investors or private parties may also be benefited from the information included in this study. It will also provide valuable insights and references to the scholars and researchers who are interested in conducting furtherer researches on the field of communication service.

## **1.5 Organization of the Study:**

This study has been organized under five chapters. The first contains introduction, statement of the problem, objectives of the study, importance of the study and limitation of the study.



The second chapter is designed to examine the review of literature especially the historical background of communication service its development in Nepalese context, the recently available communication services, and few past research conducted by the scholars.

The third chapter describes the methodological aspects of the study and it contains research design, sampling plan, and nature of sources of data, data collection procedure and method of analysis.

The fourth chapter is the main body part of the study in which data presentation, analysis and their interpretation are included. Major finding of the study are also presented in this chapter.

Finally a summary, conclusions and some valuable recommendations are presented in fifth chapter, the bibliography and appendices are presented at the end.

## **1.6 Limitation of the Study**

This research is the requirement for the partial fulfillment of master's degree in management. The researcher being a student and having a limited time and resources, this research work is not free from limitations, which are s follows.

1. This research was concerned about service marketing of G.S.M mobile phone only in Kaski district.
2. Similarly the study was only focused on mobile phone service of N.T but not in private sector.
3. Data analysis tools were not enough to describe the data because of limited time of researcher.

## CHAPTER - TWO

### REVIEW OF LITERATURE

#### **2.1 Meaning of Communication**

The term communication has been defined from the various perspectives. In the context of the present study, the following definitions are given below.

- A. Communication as defined by Faults and Alexander(1975) is a " Symbolic behavior which result in various degrees of shared meanings and values between participants."
- B. According to Serrano and Mortensen (1970): "communication is taken as the process transmitting stimuli by an individual(usual verbal symbols) to bring change in the behavior of other individual (communicates)."
- C. Geore Lumberge,(1972) defines "communication as interaction using signs and symbols where the symbol can be gesture, pictorial, plastic verbal or any other which operates as stimuli to behaviour that would not be evoked by a symbol itself in the absence of special conditioning of the persons who respond. Communication, thus is a form of interaction which takes place through symbols."
- D. In the present study, the research has taken communication as a means of exchanging or sharing ideas among or between people by use of technology especially through the use of mobile phone.

#### **2.2 History of Communication**

Communication is a learned skill. Most people are born with the physical ability to talk but we must learn to speak well and communicate effectively-speaking, listening and our ability to understand verbal and non verbal meanings are skills we develop in various ways. We learn basic communication

skills, by observing other people and modeling our behaviors based on what we see. We also are taught some communication skills directly through education, and by practicing those skill and having them evaluated.

Communication as an academic discipline related to all the ways, we communicate, so it embraces a large body of study and knowledge. The communication discipline includes both verbal and non verbal messages. Its body of scholarship all about communication is presented and explained in text book, electronic publications and academic journals. In the journals, researchers report and the result of studies that are the basis for an ever expanding understanding of how we all communicate.

Communication teachers and scholars in 1995 developed a definition of the field of communication to clarify it as a discipline for the public, that definition is now used by the U.S department of education in it's national publication, classification of instructional programs, 2000. The field of communication focuses on how people use message to generate meanings within and across various context, cultures, channels and media. The field promotes the effectiveness and ethical practice of human communication.

The ability to speak clearly eloquently and effectively has been recognized as the hall mark of educated person since the beginning of recorded history. Systematic comment on communication goes back at least as far as the precepts of Kagemni and Ptah-hopote (3200-2800BC) under the label "rhetoric" the study of the theory and practice of communication was central concern of Greek, Roman, Medieval, Renaissance and early modern education in the united states, rhetorical training has been a part of formal education since "Harvard's" founding in 1636.

To day communication and it's study are especially relevant. In the 21<sup>st</sup> century. Contemporary society is increasing diverse and communication is more complex. Modern day communication study are keeping up with and in most

cases, staying ahead of the curve Educators and researchers in the discipline are focusing their work and their causes on the challenges of communicating in a diverse and often computer mediated society. Many are also stressing on the role of communication and citizenship in the civil and democratic society. Frequently the communication discipline is to as the engaged discipline as a result of teachers and students participation in service learning projects.

What was once seen as the field of speech and rhetoric is now the discipline of communication that includes communication in the work places, in families, in mass media, and in advertising to name a few contemporary student of communication draw on theories and practices common in the field of anthropology, psychology, sociology, linguistics, semiotics and rhetoric. Student in broad cast communication make use of work in computer engineering for web development and streaming video and audio. Communication as a discipline now includes interpersonal, small group organizational intercultural and international, public mass and mediated communication. The study of communication considers how people communicate as individual in society and in various cultures in Kaski district.

### **2.3 Historical Background of Telephone Services:**

In an ancient time, the man gazing at bank of rival during rainy season because of failure in crossing it are now became success to keep human settlement on the planet named "Mars". Similarly the man, compelled to take the help of pigeon like birds to dispatch their messages now became able to get, see and listen all information of the world by sitting at a small place; so that the length of thousands kilometer is shrinking to meter and centimeter. All these strangeness and wonderful achievements are the presents or gifts of science and technology. Various scientists have been playing important role in the field of scientific innovation, among them "Alexander Grahmbell" of Scotland was one of the well- known scientists who discovered first telephone set with the help of his friend named "Watson" on 14<sup>th</sup> February 1876.

The first exhibition of Grahmbell-made telephone was shown in Philadelphia and then mass production was started from America. So, we can say that "USA" is the country, from where history of telephone service began and "Alexander Grahmbell" was the father who gave birth of telephone and introduced new revolution in the field of communication.

After the commencement of mass production of telephone, its importance gradually increased, as a result, telecommunication offices were established by almost all the countries of the world. An indo-European Telegraph company during 1881 /82 AD, has expanded the Under-Ground Cable Network from London (Britain) to Calcutta (India) to provide telecommunication services to the Indian citizens.

To make unity, integrity, and coordination in between many countries in the field of communication and to increase self-dependence in providing communication services, International Telecommunication Union (ITU) was established on 1<sup>st</sup> January, 1934. This agency amends international rules and regulations and policies related with radio, telegram and telephone. The main goal of ITU is to increase and expand telecommunication services to all the member countries. From 1947, ITU is conducting its activities as a special agency of UNO. Now it has more than 160 member countries and Nepal too has been registered as a member country on 5<sup>th</sup> December 1957.

## **2.4 Evolution of Telecommunication Services in Nepal:**

The historical development of telecommunication services in the context of Nepal can be categorized into three stages:

### **A. Initial Stages (Prior to 2013 BS) :**

In Nepalese context, the telecommunication service was introduced only in 1967 BS. During that period, the Rana Prime Minister first introduced telegram service and after three years i.e. in 1970, they used magneto telephone for their

own use. Such services at that time were not available for other Nepalese citizens. The further development have been presented chronologically.

- ) 1970 BS - Establishment of magneto telephone service in Kathmandu .
- ) 1971 BS- Establishment of open Wire Trunk Link from Kathmandu to Raxaul (India).
- ) 1991 BS - Rules and regulation related with telecommunication services named "Sawal Act" was published.
- ) 1992 BS
  - i. Installation of and Automatic Exchange having twenty - five line capacity in palace.
  - ii. Establishment of Open Wire Trunk Line from Kathmandu to Dhankuta.
- ) 1994 BS- Trunk Telephone Line between Birgunj to Rah Rajbiraj.
- ) 1995BS - Trunk Telephone Link between Birgunj to Raxaul.
- ) 1998 BS- Trunk Telephone Link between Birgunj to Dhankuta and Biratnagar.
- ) 2005 BS.
  - i. Introduction of High Frequency Radio System.
  - ii. Installation of this first Nepal Telegram office named as 'Mohan Aakashbani". This office used to provide telegram service from Kathmandu to Nepalgunj.
- ) 2007 BS. - Establishment of CB telephone exchange having capacity of 100 lines in Kathamandu.
- ) 2008 BS. - Installation of Open Wire Trunk Line from Kathmandu to Palpa which was further extended to Butwal.
- ) 2012 BS- Establishment of Manual Exchange having 300 line capacity from which the distribution of telephone service to the general public started.

## **B. Middle Stage (2013 BS to 2027BS) :**

- ) From 2013 BS, His majesty's Government of Nepal (HMG/N) had given topmost priority for the economic development of the country and in this

Connection, it has implemented the "Five Year National Planning". Since the economic growth of the country largely depends on trade and commerce, and its continuity as well as success of such trade and commerce largely influenced by the electricity, transportation and communication facilities available in the country, every five year plan have given more emphasis for the development of these sectors.

) Therefore, while studying the development of communication services it is better to study according to the growth of national five - year plans:

**I. First Five - Year Plan (2013 - 2018 BS):**

) During this planning period, the following progress related with communication services were achieved:

) The "Telecommunication Department" was established on 2016 BS.

) A separate telephone exchange of 120 - line capacity was installed in Singha-Darbar in 2017 BS through which telephone service was distributed to the Central Office of Secretariat.

) At the end of First 5 Year Plan, telegram service was extended to 28 districts of Nepal and the number of telephone lines available to the general public was reached up to 1000.

**ii) Second Five - Year Plan (2019 - 2022 BS) :**

) During this period, the following works were completed.

) In 2019 BS, an Automatic Exchange of 4000 lines capacity was installed in Kathmandu.

) Another most important thing done in this period was inauguration of National Telecommunication Service and International Trunk Service by late-king Mahendra on 15<sup>th</sup> Ashadh, 2021 BS. During that period, Delhi and Calcutta of India were linked directly from Kathmandu with the help of telephone and printer.

- ) In 2022 BS, a Manual Exchange of 300 lines capacity was installed in Biratnager (outside the Kathmandu Valley) In the same period, Rawalpindi of Pakistan and Dhaka of Bangladesh were linked by telephone.
- ) At the end of second planning period, telegram service was available in 58 different places of the kingdom with the help of SSB Radio Communication established by the help of India and America.

### **iii) Third Five -Year Plan (2022-2027BS)**

- ) In 2026 BS, HMG/N has established a separate organization named "Telecommunication Development Committee"(TDC)
- ) In this period, 3000 telephone lines were added into Center Exchange and another separate exchange of 600 lines capacity was installed in Patan (Lalitpur).
- ) Mumbai (Bombay) of India and Kathmandu (Nepal) were linked by telephone in 2026 B.S. At the end of this third planning period, the survey for the establishment of "Microwave Communication System" has been completed.

### **C. Modern Era (After 2028BS)**

Up to 2016 B.S., the extreme topography and weak infrastructure as well as the lack of resources have made task of providing basic telecommunication services (facilities) in the country more difficult so that the growth of telecom services up to that period was rather slow. At that time, the Telecom Department has also to cope with the demand of the customers for better and new services. Thus for the development and expansion of telecom service in the kingdom, the Telecommunication Development Committee (established on 2026BS) has started to make and implement the phase-Wise Development Plans with the World Bank loan assistance. The development works undertaken during different phases of Telecom Development Project are as follows:

#### **i. The First Phase Project (2027-2032)**

- ) In 2028 B.S. The "Telex Service" was first introduced in Nepal. In the same year, Telecommunication Training Center (TTC) had been established into



the boundary of Pulchok engineering Institute with the help of UNDP and ITU.

- ) To make the distribution system more systematic and judicial, "Communication Corporation Act 2028" was published on 20<sup>th</sup> Chaitra 2028 BS.
- ) In 2029 BS, various telecom exchanges were established in Birgunj, Hetaunda, Malangawa, Bhairahawa and Pokhara having telephone line capacities of 300 , 200 , 50, 100 and 100 lines respectively.
- ) Similarly, in 2030 BS, an exchange of 200 lines capacity was installed in Nepalgunj. Other few exchanges having capacities of 400 , 200 telephone lines were installed in Dharan and Janakpur respectively and 100 lines each in Bhadrapur and Rajbiraj. In the same time domestic microwave transmission link was also established.
- ) At the end of First Phase Project period, the number of telephone lines in the country reached to 9810 (8300 automatic and 1510) manual)<sup>1</sup>

## **II. The Second Phase Project (2032-2037 BS):**

At the earlier of this Project, i.e., on 1<sup>st</sup> Ashadh, 2032 BS, the previous TDC was converted onto Nepal Telecommunication Corporation (NTC). During this phase, NTC had introduced telephone service in Banepa, Bharatput, Butawal, Dhankuta, Kalaiya, Mahendranagar, Surkhet and Tansen. The main achievements of this project are:

- ) Duplication of Microwave Transmission Links (MTL) installed during the First Phase Project and installation of new MTLS in the western Nepal to link Kathmandu with important places like Bharatpur, Bhairahwa, Butwal, Tansen, Nepalgunj and Surkhet.
- ) The total lines distribution at the end of Second Phase increased up to 15590.

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<sup>1</sup> *Madan Kaji Shakya, "Telecom Development In Nepal", NTC's 23<sup>rd</sup> Anniversary Souvenir, June 15, 1996, P.48.*

**iii) The Third Phase Project (2037-2042 BS):**

The Third Phase Planning Project introduced the drastic changes in the telecommunication services since it has provided the following achievements.

- ) Provision of Satellite Earth Station at Balambu (Ktm) in October 1982 AD, that significantly improved the quality of the international telephone service. Semi automatic service became available in the international service, where by the operator in Kathmandu could dial overseas countries directly.
- ) Introduction of Digital Switching System and Digital Transmission System in he telecom network of Nepal.
- ) Establishment of own TTC building at Babarmahal, Kathmandu.
- ) Introduction of Subscriber Trunk Dialing (STD) in 1986 AD, and International Subscriber trunk Dialing (ISD) in 1987 AD.
- ) The process of digitalization of manual exchanges started as a result 22500 digital telephone exchange lines were added, including 3220 lines used to replace the manual telephone exchange lines.
- ) At the end of the Third Phase Project, the total number of telephone line distributed were reached up to 34870.

**iv. The Fourth Phase Project (2042-2047BS):**

During this phase the capacity of existing digital exchanges were increased. Almost all the manual exchanges (except four manual exchanges installed in Gaur, Siraha, Malangawa & Dipayal) were replaced by the digital exchanges. Similarly transmission links were added to link:

- a) Kathmandu with Janakpur, Rajbiraj & Birtnagar.
- b) Bhadrapur with Ilam.
- c) Biratnagar with Itahari Duhabi Dhankuta & Rangeli.
- d) Rajbiraj with Lahan & Siraha.
- e) Janakpur with Malangawa & Jaleshwor
- f) Dhangadhi with Mahendranager.
- g. Nepalgunj with Surkhet.

The most remarkable achievement during this project is the penetration of telephone service in the rural areas by digital multi access radio telephone system (MARTS) and digital radio links were established to provide the telephone service in the rural areas of Nepal. During this phase 43500 lines were added and total lines increased up to 78250.

#### **V. The Fifth Phase Project (2049-2054 BS):**

Compare to previous project the fifth phase project was very ambitious. Because NTC has ascertained the following objectives.

- a) To increase the line capacity in both the urban and rural areas to 243000 lines, thus improving the overall telephone density.
- b) To put equal emphasis on the expansion of services in urban as well as rural areas in order to improve the telephone density in the rural parts of Nepal.
- c) To upgrade the main (East West Microwave) link to 140M.bit as well as to introduce optical fiber network in Kathmandu Valley and few other parts of Nepal where the traffic is high.

Overall this fifth telecom project aimed to achieve the following:

1. National telephone density 0.9 percent.
2. Expansion of C-Dot exchanges mainly for rural areas.
3. Rural telephone density 0.05 percent.
4. Total number of VDCs with at least one public calls office (PCO) to be 1200.
5. Density in the Kathmandu Valley to be 10 percent.
6. To achieve 100 percent digitalization of the telecom network.
7. Increase of international operation and maintenance center in the Kathmandu Valley to control new digital exchanges.

The progress during fifth phase planning were as follows:

- I. 61000 Lines were added and the total number of distributed line were reached 141000 and capacity of exchanges reached to 243000 lines.

- II. A new Satellite Earth Station (A-type) was installed and put in operation from March 1996. Similarly, new national/international Gate-way exchange was installed at Jawalkhal, Lalitpur in October 1996.
- III. International circuits capacity increased up to 720 line from two international Gate-way exchanges.
- IV. There are 607 MARTS terminals 8 V-Sat terminals and 9000 rural subscribers.<sup>2</sup>
- V. The number of villages using telephone are 1200. The twenty-seven district not link by telephone before this phase are connected at all.
- VI. The national telephone density at the end of this phase becomes one percent.

**Vi. The Sixth Phase Planning (2054 -2059 BS) :**

According to the HMG's ninth national plan, NTC was continuing it's efforts to expand and Improve its service throughout the kingdom of Nepal. In addition it had planed to introducer value added service to cater for new market which was demanding more flexible and quality service in both wire-les and wire - line network in all three facets of communication namely voice, data and video. One of the major aims of the Project would be to provide "On - Demand" telephone in the all major centers. For this the basic telephone infrastructure would increased by 3,00,000 lines on top of the existing 2,43,000 line. Thus, it was hoped that the current waiting list of 254,000 would fall to zero once all the lines are distributed.<sup>3</sup>

This project had been divided onto three year program. (1997-2000) and two year program (2000-2002) this division was specially done to ,make strategic investments hoping that the mobilization of necessary funds and resources for he three years program would be much easier than for five year. Beside these factor, the imminent privatization of NTC and HMG's policy to bring in private operators in the market would also have various financial impacts which could

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<sup>2</sup> NTC Annual Report, 1996/97. P.8

<sup>3</sup> NTC Annual Report, 1996 / 97, P. 9

be assessed after three years more accurately, enabling NTC to push beyond 2000 AD more smoothly.<sup>4</sup>

The objectives of NTC's sixth phase project were as follows:

- a. To provide on demand telephone service in all major cities.
- b. To increase the national telephone density at least 2.5 percent.
- c. To provide at least one PCO in additional 1800 VDCs.
- d. To install telephone exchanges in all district headquarters and in all major commercial centers.

For the development of communication services, HMG had ascertained some specific objectives, which were as follows:

1. To develop and expand the means of telecommunication in competitive manner with the private sector involvement in order to contribute to interlink the various parts of the nation and to maintain regional balance.
2. To extend telecommunication services to the rural areas, expand local telephone and reliable trunk services to the important areas of the nation while setting the target to provide 3 telephone lines per 100 people and contribute to economic development.
3. A total of 10000 customers would be served by installing cellular mobile telephone in Kathmandu Valley, Biratnager, Birgunj and Pokhara.
4. The value-added services of telecommunication like Internet/ E-mail, Cellular Mobile, Pay phone etc. would be established and operated.
5. Modern technology equipment like asynchronous transfer mode for providing high capacity data communication services would be installed in the main cities of the country with a view of adopting gradually the concept of information highway.

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<sup>4</sup> NTC Annual Report, 1995, P.18

### **Some Physical Target of HMG in 9<sup>th</sup> Plan Period:**

The number of telephone line would be increased to 6,43,750 with the increase in the capacity of 4,00,000 lines. Among this 1,00,000 lines through private sector participation and 3,00,000 lines through NTC would be installed. The details is as follows:

**Table 1**

Physical Target for Ninth Plan Period (1997 -2002)

Development Region	Telephone Lines
Eastern	38500
Central	202900
Western	31300
Mid-Western	9600
Far-Western	8550
Total	290850

Source: HMG,s National Planning Commission - 2055, Ninth Planning (2054-2059) page 546

All these are the historical progress of telecommunication services up to this time. Now in the running Sixth Phase, NTC begins the new service like mobile phone. The historical development of mobile phone and its introduction in the Nepalese context is described below:

### **2.5 Origin and Development of Mobile Phone:**

In 1921 AD, the Detroit Police of USA conducted first experiment with mobile radio. "The possibility of utilizing radio devices for two - way mobile communication with vehicles was well appreciated during the second world-war and that gave the real impetus to mobile communications technology. However that technologies available at that time limited the number of customer could be supported and hence only specific authorities like Police Departments used the system<sup>5</sup>.

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<sup>5</sup> Bhusan Gautam "What GSM Network Has To Offer" , NTC's 24<sup>th</sup> anniversary Souvenir, June 15, 1999, P 6

Although the history of mobile communication dates back to 1920 /21, its proliferation took place only in last two decades. During the decade of 1970s, more advanced systems emerged and mobile communications started to become a common utility. In 1979 AD, the world's first analog cellular was implemented by NTT, Japan. Similarly in 1982 AD, the first American Commercial Cellular System was turned on in Chicago. Because of poor performance in the earlier analog technologies led to the development of more advance digital cellular technologies and GSM is one of them. Actually GSM refers to the "Global System For Mobile Communication" Which was the first digital cellular system and it was introduced in Germany during 1982 AD and only then its commercial operation began in full fledge.

Although it was initially developed in European context, it has rapidly gained acceptance worldwide. According to March 1998 figures from GSM Association, there is a current bases of more than 100 million customers spread across almost 350 network worldwide.<sup>6</sup>

In Nepalese context, NTC had started the operation of GSM cellular mobile on 14<sup>th</sup> April 1999 by establishing a GSM 900 MHZ network having capacities of 10,000 subscribers with equipment from Nortel Networks. Its commercial service had began on 15<sup>th</sup> may 1999. The Mobile Switching Center (MSC) and Base Station Controller (BSC) were located in International Gateway Exchange Building, Lalitpur, Twenty six cell sites were located across Kathmandu Valley, Pokhara, Birgunj and Biratnager. Seventeen of these cells were located in Kathmandu and three each in other cities up to 2057 BS. Anybody who subscribed to GSM service at any one place could make or received all types of local and long distance calls from any of above mentioned cities with their own mobile set.

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<sup>6</sup> Ibid , p.7

### **2.5.1 Mobile station and SIM card:**

The main attraction of GSM system is its low cost, low power and handheld terminals. The mobile station has really two distinct entities. The actual hardware consists of signal processor to convert speech into digital data, transmitter/receiver, antenna for radio transmission, battery and the man machine interface. However, the mobile terminal in itself is anonymous.

The intelligence of mobile terminals lies in SIM Card. The GSM subscribers are provided with SIM card with its unique identification at the very beginning of the service. The subscriber is identified to the system by this very SIM Card, SIM Cards have provided considerable amount of flexibility to the subscribers since they can use any GSM mobile terminal to access the network. SIM Card are important and powerful innovation to realize the idea of personal communication systems.

### **2.5.2 Services in the GSM Mobile Phone**

GSM was designed having interoperability with ISDN in mind and the services provided by GSM are a subset of the standard ISDN services. Because of the radio transmission limitation, the same channel. Rate as ISDN cannot be provided Services in the GSM can be categorized in to three ways :

- A. Tele Services :** It covers regular telephone (I.e., subscriber of GSM mobile can make all types of local, long distance and international calls to any other mobile or fixed telephone any where in the world), emergency calls (possible without SIM cards) and short messages. This enables speech call to be placed between GSM users and any telephone subscriber connected to any other telephone network worldwide.
  
- B. Bearer services:** These services are also called data services. The customer of GSM network can receive or send various data that should have the standard rates of up to 9.6 Kbps the limitation of 9.6 Kbps is caused by the limitation of bit rate on air interface. Specially equipped



GSM terminals can connect with POTS (Plain Old Telephone System), ISDN and packet switched networks for data and fax calls. GSM users can access to internet with a suitable interface to their computer.

- C. Supplementary Service:** Supplementary services enhance the basic services available to the subscribers. It modifies or supplements basic telecommunication services. Consequently it cannot be offered to a customer as a stand alone service. Some of the supplementary services provided are .
- 1. Call forwarding service:** Any GSM subscriber can transfer the receive calls of his mobile phone to any mobile or other numbers of fixed networks.
  - 2. Call waiting service:** The GSM subscriber can give signal or can request the third party when he is dialing the same number at the time of two-way conversation is in existence.
  - 3. Multi party service:** The GSM subscriber can talk or make provision of talking with two other telephone at a time.
  - 4. Calling line identification:** The GSM subscriber can see the telephone number of second party who is dialing in his mobile phone due to its display nature.
  - 5. SMS Service:** A service unique to GSM, allow the user to send and receive alphanumeric messages up to 160 characters. The SMS is similar to paging services but much more comprehensive.
  - 6. Voice mail service:** The voice mail system in general provides a store and forward medium for voice messages. Voice and fax messages can be stored at the voice mail for the later retrieval by owner of voice mail, in case the user is busy or out of reach. A caller may wish to directly access the voice mail in case he does not want to disturb the mobile user.
  - 7. National /International Roaming:** National and international roaming capabilities have been regarded as a major factor behind the huge success of GSM system, GSM users can carry their mobile (or SIM card)

to any other cities or country where GSM network is operating and can make or receive calls with his own mobile.

### **2.5.3 Characteristics of Mobile Phone:**

- a. Very simple in connection due to it's wireless nature.
- b. Easy in repair and maintenance due to it's less destructive characteristics.
- c. No necessary of shifting when migration of resident takes place.
- d. Complete provision of secrecy (no any person can interfere and no other electronic equipment like FM radios can catch it's waves or frequency.)
- e. Complaints like billing system due to use of cord less telephone will not exist in mobile service.
- f. Persons having mobile set can receive/transfer his calls easily if he/ she is in the radio frequency areas.
- g. Regular, secure and reliable service.
- h. Hot billing facility i.e. subscriber can take their telephone bill after two hours if needed.
- i. The mobile subscriber can take or use all type of communication services from domestic as well as international GSM average areas by using their own telephone number and set.
- j. Subscriber. Can dispatch short message, record his voice and can use voice mail.
- k. The person who dials telephone as a bluff-call will be de-motivated or demoralized to repeat such activities since his telephone number will be displayed on mobile set.
- l. If mobile subscriber losses his SIM card he can dial emergency call without it.

### **2.6 Present State of Communication Services in Nepal:-**

To know the present state of communication service in Nepal the secondary data is taken from the various periodicals published by Nepal telecom as well

as T.U Journals of Western Regional Library, P.N Campus, Pokhara. Thus data related to this objectives are presented below.

### **2.6.1 Present activities of Nepal telecom.**

#### **a. GSM GPRS :-**

To serve its valued customers with the latest technologies in its services NT introduced General Packet Radio Service (GPRS) to its postpaid mobile users from 15<sup>th</sup> Falgun 2063. Initially the service was started in Kathmandu valley, Banepa, Dhulikhel and Panauti. Using GPRS service, postpaid mobile users can access the internet, emails, T.V and send & received multimedia messages online on their mobile sets, whenever they want it, no matter where they are. The tariff for GPRS service includes an initial one time activation charge of Rs.100, Monthly rental of Rs.600 for unlimited data access and a charge of Rs 4 per multimedia message.

#### **b. CRBT (Caller Ring Back Tone)**

Catering to the growing public demand for mobile services. NT introduced Caller Ring Back Tone (CRBT) service for its postpaid and prepaid mobile users of Kathmandu valley from 15<sup>th</sup> Falgun 2063.

CRBT is set in the mobile number of the called subscriber. When there is an incoming call, a piece of music, advertisement or message preset by the called subscriber will be played to the calling party before the called party picks up the phone i.e. the caller hears the caller ring back tone set in the system by the called party, instead of the previously monotonous "dudu" sound.

Registration of CRBT service can be done through NT's website through IVR service dialing 1609 or by sending SMS to 1455. All the information regarding the registration process is available in Nepal Telecom's Home page [www.ntc.net.np](http://www.ntc.net.np)

The registration of CRBT service is completely free. Favorite hit songs or music clips can be purchased and down loaded online from web at the rate of Rs. 10 per song/ music clip and the validity period of each song or music clip is 15 days from the date of purchase. Registration from the web is very easy and it provides lots of options for the users to personalize their CRBT account. One can also purchase and gift ring back tone to their near and dear ones. Information about the songs such as artist's name, song category and price of the songs can be viewed on the web or can be requested through IVR or SMS. Call rate is Rs.5 per minute while using IVR service for Registration or downloading the songs and Rs.1 per SMS.

Currently two operators namely Honey Enterprises and Music Nepal are providing caller ring back tones for Nepal Telecom GSM mobile users under contract on revenue sharing basis.

To date there are currently about 1,40,000 subscribers of CRBT service

**c. Online Registration for GSM Prepaid Service.**

To ease and facilitate its valued customers, this year NT introduced on-line registration applications for GSM NAMASTE pre-paid mobile lines. On successful registration, a slip appears on the screen with details of registration. The subscribers are required to submit the slip or give details printed on the slip when the pre-paid mobile lines are issued after notice for the same is published on the daily newspaper. Normal registration forms can be submitted at the concerned Telecom Office also, as done previously for applying for the service.

**d. GSM, Electronic Recharge Service.**

After the successful commercial launch of GSM, NAMASTE prepaid mobile service, the demand for recharging this prepaid mobile phone account also became very high. Previously recharging was done merely by recharge cards. But now NT has facilitated its valued subscribers by opening various new

option for recharging their prepaid mobile phone accounts, such as recharging through ATM books, the internet, Point of sales etc.

Using the ATM Booth option NAMASTE mobile users holding Nepal investment bank ATM cards can now recharge their mobiles using NT's Electronic recharge card service. Similarly, NIB ATM card holders can now retrieve the mobile recharge pin code worth Rs. 200 Rs500, and Rs. 1000 from their nearest ATM Booths. Using the internet, NIB also offers buying of recharge card number online. If a subscriber of NT has a NIB bank account with internet banking facility, he/she can login from the NIB bank web site and purchase recharge cards of standard denominations offered by NT, Such as Rs. 100, 200, 500 and 1000.

Point of sales recharge option required a special POS machine which is GPRS enabled or CDMA data service enabled. The Recharge retailer should have POS machine with user name and password to access the service provider's server through the internet. The access to the internet is available from the POS machine and hence there is no need to have a separate computer to access the internet. The retailer collects cash from NT customer and after entering a valid username and password requests the POS machine to print the recharge card number, as per the amount received from the customers.

Using the above mentioned options, the service provider can only sell recharge card coupons of standard denominations. In the near future NT is planned to operated USSD gateway service provider, which will allow retailers of NT to sell recharge card coupons of any denomination that is even of Rs,10 or Rs,12 etc

**e. International Roaming Service**

International Roaming Service is one of the added feature of GSM technology which enables a subscriber to roam around the world with a single subscription in the Home public Mobile Network (HPMN). NT started this service from

2001 and currently NT has agreement with 136 partners in 41 countries for international roaming service and about 20 partners in 15 countries are in queue for new agreements.

NT has 116 inbound roaming partners (i.e., subscribers from 116 networks from different countries can roam in Nepal) . Out of these 116 partners, NT has bilateral roaming with 73 partners (i.e., Subscribers from N.T can Roam into 73 different networks outside Nepal. In future, all the inbound roaming partners will be converted into bilateral roaming partners extending coverage throughout the world.

**f. GSM Mobile Network Expansion**

NT started GSM cellular Mobile Service in the year 1999. Since then the service has been expanded to various cities throughout the country. A total of 253 BTSs have been installed in the Kathmandu Valley and 317 BTSs in Biratnagar, Birgunj, Bhairahwa, Nepalgunj, Dhangadi and Pokhara region to expand its network. At present NT has a total of 12,19,000 mobile subscribers in the country and its demand has been growing tremendously since the past few years.

In the current 11<sup>th</sup> plan, NT intends to expand the existing GSM network by adding another 3.5 millions subscriber lines to make the GSM penetration from the current 2.7% to 16% with the population coverage of about 45%. The project has been divided into three different regions namely. Network I, Network II and Network III and shall be implemented fully on turn - key basis. Network II shall cover three development regions i.e., the Western development Region (WDR), Mid-Western Development Region (MWDR) and Far-Western Development Region (FWDR), Mid-western Development Region (MWDR) and Far- Western Development Region (FWDR) whereas Network III shall cover Eastern Development Region (EDR) . Each Network shall cover the district headquarters, major towns, commercial centers and highways within the respective development region. The remaining parts of the

country. i.e. the Central Development Region shall be covered by Network I, with the existing network elements and new expansions. The expansions project has a provision of 5% WCDMA services as per 3GPP standers.

**f. PSTN VMS**

PSTN VMS services was put into operation on 3<sup>rd</sup> Jestha 2063 (17<sup>th</sup> May . 2000. The current system capacity is 2 lakhs and its final capacity is 5 lakhs subscribers. The system has been extended all over the country.

Available services in PSTN VMS system

- Voicemail Service.
- Fax mail service
- Voice / Fax mail service
- Notice Board service.

NT plans to distribute Notice Board service in the near future for the following services.

- Foreign Exchanges Rates updates.
- Daily gold/silver price updates.
- Daily wealth updates
- Flight schedules/updates for airlines
- Daily stock exchange price updates
- Daily wholesale price of vegetables and fruit
- Recorded News of FM and radio station
- Record programs of FM, TV station
- Currently Running picture updates for cinema halls
- Similar type of offices can use it for their business and public services.

Notice message can be heard by dialing special access codes.

**f. PSTN fault complaint registration "198 Service"**

To provide good quality service to its valued customers. NT introduced automatic PSTN fault complaint registration "198 IVR service," in September 2006. Consumers just have to dial 198 and follow the voice prompt instruction to register the fault complaint of their PSTN fixed phone line. The complain is

then immediately dispatched to the fault recovery team using Automatic Fault Retrieval & Handling services "192 IVR Service" . Both of these service do not require any human operator, hence giving 24 hours' service 7 days a week, free of charge.

**g. NT's 188 IVR service**

In December 2007, NT introduced "VOIP call Complain" 188 service allowing our valued customers to complain about telephone number used for illegal service for incoming and outgoing International calls. NT request the general public to register complaints dialing 188 when telephone number of Nepal is displayed on the Caller ID of their telephone sets when receiving an international call from abroad, from 10 am to 6 pm. Based on these complaints NT can curb people who are causing huge revenue loss to NT as well as the Government of Nepal. The service is free of charge.

**h. Result Query through NT's Various Services.**

Since the past four years, NT has been publishing SLC result ONLINE in its website [www.ntc.net.np](http://www.ntc.net.np) Such result can also be queried from NT's PSTN or mobile set through IVR service just by dialing 1600. From 2063 this service has been extended to 10 + 2 result as well with the dialing number 1601. The result' query service is also available through NT's mobile SMS service, by sending SMS to 1400, Also now we can query result online with mark sheet as well.

**i. International Credit Card**

From April 2007 NT has started international credit card call facility in a joint venture with BBG Holding Limited. The target customer of this "Blue Phone" service are the foreign travelers. The instructions for making such call are available in a number of international languages and are provided near the terminals.



It is possible to make international calls via this service to all countries of the world by using international credit cards (like VISA, Master Card etc) At present, there are 6 terminals inside Tribhuvan International airport (TIA) and one terminal in the Domestic Airport in Kathmandu.

**j. Advanced Free-Phone Service (AFs) Gaining Popularity.**

Nepal Telecom's Advanced Free phone (Toll- Free) services is gaining major popularity these days though initially for the first time in NT' history, NT had to resort to door to door marketing for the service now its subscription rate is gaining the tempo and as a result in the past one year only, its subscribers have more than doubled in number increased from 22 to 54). It has been major requirement especially for the money trans for businesses, which is thriving throughout the country. Other business sectors like manpower/education consultancies, large business houses and organization, banks, airlines, FM station , Media publication, etc, as well as social organization are also among the other popular subscribers of this services.

**k. Expansion of Prepaid Calling card (Easy Call) Service**

With the increase in the popularity of prepaid calling cards and its growing demands a Countries was signed for additional 200,000 Activation license capacity (with generation license capitacity.5 times that of activation license capacity) for PCC service and addition of 20 CAPS in system in 31<sup>st</sup> July 2007 (15<sup>th</sup> Shrawan 2064). Implementation of addition of 200000 PCC Services Activation license Capacity (with generation license capacity 5 times that of activation license capacity) was done on 14<sup>th</sup> August 2007 (29<sup>th</sup> Shrawan, 2064) Likewise, implementation of addition of 20 CAPS in system was carried out on 16<sup>th</sup> August 2007 (Shrawan 31, 2064).

**L. NT Introduces Cheap calls to USA and Canada**

NT introduced a new scheme for calling USA and Canada at extremely cheap rates @ Rs. 8 per minute using Prepaid Calling Cards (Easy Call) starting from

1st Ashoj 2064 (18th September 2007). A new access code 1424 for introduced for this scheme with a pulse rate of Rs. 1/7.5 seconds pulse.

#### **M. Internet Services and Data Network**

In order to meet the ever increasing demand of Internet bandwidth, Nepal Telecom is expanding its Internet Gateway Backbone link by connecting with Bharti Airtel via Bhairahwa. Initially 16 Mbps link has been provisioned which will be upgraded to STM - 1 by the end of this fiscal year. In addition, process has been initiated for provision of one more STM-1 link by the end of this fiscal year.

At present there are about 90 leased line connections that use up about 44 Mbps of bandwidth. It is expected that this leased bandwidth will reach 140 Mbps by the end of this fiscal year. Moreover, NT has more than 14,000 dial - up customers. In order to enhance the Internet system, a new tender for Internet Billing system has already been floated which will take care of the billing needs of all the services related to Internet services.

#### **n. SMS VAS System**

In its continuous effort to provide latest value added services to its customer, NT has language mobile to mobile SMS VAS for GSM mobile users. At present SMS VAS provides.

- ) Information services such as daily horoscopes news update (breaking news, national, international news) weather forecasts. etc.
- ) Entertainment Service Such as SMS contests SMS chats SMS polls, Event bases SMS polls, Birthday alerts. etc.
- ) Promotional & Broadcast Service such as product and service promotion broadcasts, product and service promotion contests.
- ) Customization Services such as ring tones, Logos.
- ) SMS banking such as - balance enquiry, transaction alert transaction enquiry etc.

Using SMS VAS system, users can send text messages to the assigned short message number to access and subscribe various Value Added Services. The system also provides interactive SMS queries, In future the system will provide more Information and entertainment based Services such as telephone directory, mobile directory calendar, service, sports, foreign currency exchanged rates, song dedication on radio /TV channel, games, etc.

Charges of these value added services are different for different services provided by various content providers, based upon the contact made between the content provider and NT on revenue sharing basis. Some of these services such as banking services are non revenue sharing based services. Interface from content provider to NT SMSC is IP based and interface from SMSC to customers is SS7 based.

SMS Salary alerts issued for MSD employees as their salary is deposited in the bank is another example of SMS VAS which has been successfully tested.

Using the SMS VAS system for the first time, NT introduced fund raising program for the flood victim via SMS to 1410 and 1415 respectively. The program was very much successful and Nepal Telecom collected a fund amounting to Rs.7,35,768 which was deposited in the prime minister's relief fund account for the flood victims on 2064-06-09.

## **n Next Generation Network**

As per the framework of the currently running 11<sup>th</sup> Plan, NT plans to increase its basic telephony penetration by around 4% and to provide broadband service in the form of High Speed Internet. The first three years of the 11<sup>th</sup> Plan covers the Implement action of Next Generation Network (NGN) to expand around 500K voice and 125K DSL lines and deploy various access nodes though out the country.

At present, NT is providing voice services via PSTN, CDMA and GSM technologies to its fixed and mobile subscriber. It has been providing other

value Added Services (VAS) like Voice Mail service. Interactive Voice Responses (IVR) service and intelligent Network (TM) services prepaid callings Cards (PCC) service. Home Country - Direct (HCD) service. In addition, NT also provides internet service to its fixed/mobile subscribe and data service to corporate customers via leased lines. For voice and data services NT is using separate transport network like TDM transponder CAPEX transport and packed switched transport network, which is not effective from CAPEX and OPEX point of view.

Recently NGN has emerged as an alternative technology for replacing public Switch Telephone Network. Deployment of NGN will provided unified resource for voice and multi-media communication. Basis components of GNGN are Soft - switch, Media Gateways is based on packer switched transport network and employs the concept to "On Architecture" by the use of IP technology. NT's highly reliable and resilient IP Backbend network will play a vital role for providing connectivity between all network elements of NGN across the country.

As such, for transport medium/backbone, NG-SDH has already been depleted outside Kathmandu Valley and the IP core backbone is being designed for Kathmandu Valley

For NGN development, customers, telephone devices will be physically connected o the multi - service access node called Access Gateway (AG) that will be installed at different appropriate location. The AG is a kind of media gateway that providing multi-service capability to customers and support Voice, DSL, fax, data service and high bandwidth video streams over IP. The PSTN and GSM network or other operators with TDM (circuit swathed) technology will be connected to NGN Trunk getaway and Signaling getaway via N7 - signaling.

In order to enhance its customer care services. NT plans to implement a new convergent system for billing and customer care. The new billing system will have integration common platform for pre-paid and post paid subscriber and billing will be done on real time basis. Besides, the new network will have various facilities like Customer Self-Care service via web and via IVR.

Benefits of NGN technology:

- ) common network for "transport" and "access" of voice/data/ video
- ) Open architecture to expand components
- ) Convenient and easy addition of third party enhanced/ supplementary services in the application layer.
- ) Single success network equipment for Voice, Data and Video services.

**o. Implementation of Digital Circuit Multiplication Equipment**

NT intends to implement Digital Circuit Multiplication Equipment (DCME) as a step forward in the expansion of its domestic trunk capacity. This will help in providing back ups for the optical/terrestrial links, whenever they fail.

Presently DCME from Memotec, Canada having compression ratio of 16:1 are in operation for Kathmandu-Nepalgunj, Kathmandu-Dhangadhi and Kathmandu- Biratnagar sectors on 2 MB satellite links and Kathmandu-Bhairahawa sector on 1MB satellite Link the second phase, NT plans to install DCME from Vera's (Israel) having compression ratio of 16:1 for expansion of its domestic trunk capacity. NT plans to use both of its satellite and radio links. At first Kathmandu will be connected with Bhairahawa, Biratnagar and Nepalgunj with 2 MB satellite links giving capacity E1S serving NT's mobile service then all directorates will be connected with the rural northern station via radio links, according to E1 requirements in those locations.

**p. Expansion of Spur Links in Rural Areas**

In its continuous effort in modernizing the overall national telecommunication network structure in Nepal, NT aims to replace some of the existing rural

telecommunication network which is now obsolete or existing with exhausted capacity. At the same time, to meet up with the expansion of CDMA / GSN coverage, NT also plans to build a backhaul link with Media haul 8 GHz free rate (8Mbps 28 hops and 34 Mbps 22 hops) point to Point digital radio links. PDH- Digital Microwave Radio really system comprising of Radio Equipment Multiplexing equipment , Antenna & feeder system and accessories. As per the project schedule, altogether 50 PDH hops shall be added.

**q. SDH Microwave Backbone**

Optical Fiber network has been the main source of transmission backbone along the southern region of the country. The growing demand for higher transmission backbone to provide interconnection in the hilly areas, such as the district headquarters and it the GSM/CDMA BTSs, are ever increasing. To meet this demand NT inters to employment SDH based Microwave Radio. Network for backbone along with Spur links having ethernet feature. This network will serve as a Radio Background link for Western, Mid - Western and Far Western Region of the country. This network will also be used for various high traffic Spur links through the country. The proposed SDH STM -1 radio link which has 62 hope and operation on 1+1 to 3+1 configurations, shall be integrated into the existing SDH/PDH best network ..These links shell be installed in Atabare, Salute, Taplejung, Bhedetar, Geneshtar, Bhojpur, Khandabari convering the eastern part of the country whereas the western part covers Nepalgunj, Chamere, Ranimatta, Bharatalagna, Dhangadi, Buretole, Kaphili, Bittapakha, Dadeldhura and Baitadi.

**r. CDMA 2000 IX Network Expansion**

Ever since the successful lunching of CDMA 2000 IX service (both) Fixed and Mobile) in 2006 its popularity is rising day by day. Under the CDMA Project a total of one million lines shall be installed and dividedly into three Network namely Network I. Network II and Network III. Network I shall cover the Center Development Region (CDR). Network II shall cover the three regions namely: Western Development Region(WDR), mid Western Development

Region (MWDR) and Far Western Development Region (FWDR) where Network III shall cover the Eastern Development Regional (EDR, The Project intends to expand over all the 75 District Headhunters and all of the 3914 Village Development Committee (VDCs).

Within 2 years of its operation the total number of CDMA subscribers has reached 300K to date, CDMA service has covered 71 out of 75 district and 2006 VDCs out of 3914 VDC in Nepal. NT has already installed around 250 BTS all over Nepal for the CDMA network coverage.

Nepal Telecom is providing four types of CDMA services to subscribers.

C-PHONE Post-paid

C-PHONE Pre-paid

SKYPHONE Pre-Paid - Mobile Service

SKYPHONE Pre-paid -Only Data Service.

C-PHONE Post paid was the first CDMA service introduced to provide Basic Telephone Service as a substitute for PSTN. CPHONE Post - paid services is available in 40 districts.

C-PHONE pre-paid was introduced to provide quick and easy distribution of the Basic Telephone Service to customer even in remote hilly areas. The pre-paid service users do not have to pay monthly rental and the pre-paid account can be recharged through recharge cards.

SKYDATA pre-paid service was introduced in order to service only data subscribers, especially the laptop users. SKY PHONE is the service which Nepal Telecom introduced in 2006 as a Limited Mobile service in the Kathmandu valley. The major achievement of year 2007 is the conversion of the limited mobile service to the full mobility service nationwide. NT has distributed this SKY PHONE mobile service in 13 out of 14 zones within a year of receiving license for full mobility service. Another service which will

to be commercialized within a couple of months time is the SKY PHONE full mobility service in postpaid mode.

Another big a achievement is the installation of a SMSC gateway bridging the GSN and CDMA network which shall definite boost the regular earned revenue through the p2p (including international SMS) and SMS based Mobile Value Added services.

The benefits of CDMA network has empowered all sectors of the economic through improved access to telecommunication facility as well as imported service quality. The focus on rural development and use of ICT (Information and Communication Technology) in poverty alleviation program is considered as an important part of the overall ICT development program in the country. It is believed that the use of Internet and e mail will not only empower the rural population to enlarge their choice and opportunities, but also help them in instant information delivery, distant education and other administrative and /or business activities. Apart from ICT activities, telecommunication services in rural areas provides a partial substitute for physical transportation, which is especially valuable in a country like Nepal having difficult topography. CDMA services have widened the reach of emergency and other government services and helped tremendously to up it the quality of life. The CDMA project is therefore going substantial impetus to the overall development of the rural sector of Nepal.

## **2.8 Consumer Behaviour Models**

### **2.8.1 Meaning of consumer Behaviour**

As long as there has been exchange of goods and services between buyers and sellers. The ultimate success of all economic activities are depended upon producing good and services that the buyers consider suitable. Since long before the record of the history the buyers have had some freedom of choice in accepting or rejecting the product of the seller. But in this modern period,



survival of a business or a firm depends on the behavior of consumers in the market place.

"In this modern marketing era, every marketers should understand the consumers satisfaction which creates the behavior of consumer. In the era of cut-throat competition, successful Marketing of the products demands a through understanding of consumer's taste, choice, preference, loyalty or say consumer behavior"<sup>7</sup>

Consumer is the king in business. The understanding of why consumers behave as they do and the reasons of their behavior has tremendous implications both for the Marketers and the public policy makers. Such understanding is likely to help marketers to match their marketing mix or strategies with the needs of different consumer segments and it also enables public policymakers to formulate such programmes and regulations.

Present study is an attempt in this direction aimed at examining the consumer behavior of cellular G.S.M Mobile phone in Kaski district. Due to very limited time of researcher, the researcher has given the different types of consumer behaviour models only for the knowledge to the further research scholars. In this research, the researcher has only taken from the consumers response about billing system, tariff rate and deposit amount only.

### **2. 8. 2 Consumer Behaviour Models:**

Consumer behaviour Models describe as consumer decision-making or consumer choice process. There are five comprehensive models: Nicosia model. Howard-Sheth model, Englel-Kollat-Blackwell model. Shrth family decision making models, Bettman's information processing model of consumer

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<sup>7</sup> Yogess Pant, "A study on Brand Loyalty" Unpublished Master Dissertation. T.U. 1992.

choice.<sup>8</sup> These models reflect an effort to order to integrate the huge number of bits and pieces of knowledge that are now known about consumer behavior<sup>9</sup>.

#### **A. Nicosia Model:**

This Nicosia model was developed by Francesco M. Nicosia. The Nicosia Model focused on the relationship between the firm and its potential consumers.<sup>10</sup> In the broadest terms, the firm communicates with consumers through its marketing messages (advertising) and consumers communicate with the firm by their purchase responses. Thus the Nicosia model is interactive in design: The firm tries to influence consumer, and the consumers- by their action (or inaction) - influence the firm. The Nicosia model is divided into four Major fields:<sup>11</sup>

Field -1 : The span between the source of a message and the consumer's attitude:- The first field of Nicosia model is divided into two sub-fields<sup>12</sup>.

Sub Field - 1: Firm's attributes.

Sub Field- 2: Consumer's attributes. (especially predispositions)

Field- 2: Search and Evaluation:- The second field of the Nicosia Model deals with the search for relevant information and evaluation of the firm's brand in comparison with alternative brands. The output of this stage is motivation to purchase the firm's brand.

Field - 3: The act of purchase: In the third field, the consumer's motivation towards the firm's brand results in actual purchase of the brand from a specific retailer.

Field -4: Feedback:- The final field consists of two important types of feedback from the purchase experience:<sup>13</sup>

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<sup>8</sup> Leon G. Schiffman and Leslie Lazar Kanuk. Consumer Behavior. 3rded. (New Delhi: Prentice Hall of India Private Limited, 1990. P.P. 652-665.

<sup>9</sup> Alan R. Andreasen "Attitudes and Customer Behavior A decision Model" in Lee Presented. New Research in Marketing (Berkeley: Institute of Business and Economic Research. University of California. (1965).

<sup>10</sup> Francesco M. Nicosia, Consumer Decision Process. (Englewood, Cliffs. N.J. Prentice Hall, 1966 PP 156-88

<sup>11</sup> Leon G. Schiffman and Leslie Lazar Kanuk, Op. cit.p. 653.

<sup>12</sup> ibid P.653

- i. To the firm in the form of Sales data.
- ii. To the consumer in the form of experience (Satisfaction or dissatisfaction).

**B. Howard - Sheth Model:**

This Howard - Sheth Model was developed by John A. Howard and Jagdish N. Sheth in 1969. The Howard - Sheth model is a major revision of earlier systematic effort to develop a comprehensive theory of consumer decision making<sup>14</sup>. This model explicitly distinguished among three levels of learning. (stages of decision making).

**Stages of Decision Making:-**

- i) Expensive problem solving:- The consumer's knowledge and beliefs about brands are very limited or nonexistent. At this initial point, the buyer has no brand preference, and therefore actively seeks information about a number of alternative brands.
- ii) Limited Problem solving:- Knowledge and beliefs about the brands are only partially established, which means that the consumer is not fully able to assess brand differences in order to arrive at a preference. Some comparative brand information is sought, although the choice criteria are likely to be fairly well defined.
- iii. Routinized response behavior:- The consumer's knowledge and beliefs about brands are well established, and there is enough experience and information to avoid confusion about the various brands. The consumer is predisposed to the purchase of one particular brand.

The main characteristics of each of the three stages of decision making are tabulated as follows<sup>15</sup>.

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<sup>13</sup> bid P.654.

<sup>14</sup> ohn A. Howard and Jagdish N. Sheth, The Thoery of Buyer Behaviour, (New York : Wiley, 1969) PP 24-49.

<sup>15</sup> John A Howard: Consumer Behavior Application of Theory, (New YorkM MCGraw- Hill, 1977). 10.

### **The Model Consists of four Major sets of Variables:<sup>16</sup>**

- i) Input Variables :- The input variables consist of three distinctive types of stimuli (information sources) in the consumer's environment
  - a. Physical brand characteristic (Significative stimuli).
  - b. Verbal or visual product characteristic (symbolic stimuli)
  - c. Consumer's social environment (Family, reference group, social class). That of (a) and (b) stimuli are furnished by the marketer in the form of product or brand information, but (c) stimuli is provided by the consumer's social environment.
- ii. Perceptual and learning constructs: - The Howard - sheth model consists of psychological variables that re assumed to operate when the consumer is contemplating a decision.
- iii. Output :- The model indicates a series of outputs that correspond in name to some of the perceptual and learning construct variables (attention, brand comprehension, attitudes, intention)in addition to the actual purchase.
- iv. Exogenous Variables:- Exogenous variables are not directly part of the decision making process, Relevant exogenous variables include the importance of the purchase, consumer personality traits, time pressure and financial status.

### **C. Engel - Kollat - Blackwell Model:-**

The Engel-Kollat- Blackwell Model of consumer behaviour (Engel black well-Miniard model in its current revision) was originally designed to serve as a framework for organizing the fast growing body of knowledge concerning consumer behavior.<sup>17</sup> The latest version of this comprehensive model, which consists of four sections:<sup>18</sup>

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<sup>16</sup> Leon G. Schiffman & Leslie Lazar Kanuk. OP. Cit. 1990. P. 654.

<sup>17</sup> Jams F. Engel, David t. Kollat. and Roger D. Blackwell, Consumer Behaviour, (Newyork Holt, Rinehart & Winston. 1968). 40..

<sup>18</sup> James F. Engel. roger D. Blackwell. and Paul W. Miniard Consumer Behaviour, 5th Ed. (Hinsdale, III: Dryden Press, 1986, P. 35.

- i) **Decision Process Stages:-**The central focus of the model is on five basic decision process stages:
  - a) Problem recognition
  - b) Search
  - c) Alternative evaluation
  - d) Purchase and
  - e) Outcomes
- ii) **Information input:-** Feeding into the information - processing section of the model is information from marketing and non marketing sources.
- iii) **Information Processing:-** The information processing section of the model consists of the consumer's exposure, attention, comprehension/ Perception, yielding/ acceptance, and retention of incoming marketer-dominated and non-marketing information.
- iv) **Variables influencing the Decision Process:-** The last section of the model consists of individual and environmental influences that affect all five stages of the decision process, Individual characteristics include motives, values, lifestyle and personality; The social influences are culture, reference group, and family. Situational influences, such as a consumer's financial condition, also influence the decision process,

**D. Sheth Family Decision Making Model:-**

Sheth family decision- making model considers the family as the appropriate consumer decision-making unit. The left side of the model shows separate psychological system representing the distinct predispositions of the father, mother and other family members.

The right side of the model lists seven factors that influence whether a specific purchase decision will be autonomous or joint: social class. Lifestyle, role orientation, family lifecycle stage, perceived risk, product importance, and time pressure. The model suggests that joint decision making tends to prevail in family that are middle class, newly married, and close-knit, with few prescribed family roles. In terms of product specific factors, it suggests that joint decision

making is more prevalent when there is a great deal of perceived risk or uncertainty, when the purchase decision is considered be important, and when there is ample time to make a decision<sup>19</sup>.

#### **E. Bettman's Information - Processing Model of Consumer Choice:-**

This Bettman's information processing model of consumer choice is developed by James R. Bettman. Bettman's model of consumer choice subscribes to a distinctly cognitive and information-processing point of view.<sup>20</sup> Consistent with this prospective, the consumer is portrayed as possessing a limited capacity for processing information. When faced with a choice, the consumer rarely (if ever) undertakes very complex analysis of available alternatives. As suggested by the model, the consumer typically employs simple decision strategies or heuristics. The overview of the Bettman model contains its seven basic components<sup>21</sup>.

- i) Processing capacity
- ii) Motivation,
- iii) Attention and perceptual encoding
- iv) Information acquisition and evaluation.
- v) Memory
- vi) Decision Processes, and
- vii) Consumption and learning processes.

In addition, the model includes, at appropriate points, mechanisms that continually scan the environment ad receive, and respond to interruption.

#### **F. Sheath - Newman -Gross Model:-<sup>22</sup>**

The model concentrates on a accessing consumption relevant values that explain why consumer choose to buy or not to buy (or to use or not to use) a specific product, Why consumers choose one product type over another, and to

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<sup>19</sup> Leon G. Schiffman & Leslie Lazar Kanuk, Op. Cit (1990) P. 659.

<sup>20</sup> Leon G. Schiffman & Leslie Lazar Kanuk, Op. Cit (1990) P. 659..

<sup>21</sup> Leon G. Schiffman & Leslie Lazar Kanuk, Op. Cit (1990) P. 659..

<sup>22</sup> Leon G. Schiffman & Leslie Lazar Kanuk, Consumer Behaviour, 4th edition (New Delhi: Prentice Hall of India (Pvt. Ltd. 1993). P. 576- 588.

consumer choices involving a full range of product types (consumer non-durables, consumer durables, industrial goods and services)<sup>23</sup>

The Sheath-Newman-Gross model is rooted in three central proposition<sup>24</sup>.

- i) Consumer choice is a function of a small number of consumption values.
- ii) Specific consumption value make differential contributions in any given choice situation.
- ii) Different consumption values are independent

The First three models (Nicosia Model, Howard- Sheth Model, Engel-Kollat-Blackwell Model) focus on consumer decision making, especially on how individual consumers arrive at brand choices. The fourth model (Sheth family decision making model) deals with family decision making. The fifth model (Bettman's information processing model of consumer choice) focuses in the cognitive aspects of information search and processing and indicates how consumers employ information to arrive at various types of buying decision. The final model of consumer behavior is concerned with consumption values, especially why consumers choose to buy or not to buy a specific product, specific type of product or a specific brand.

## CONSUMER DECISION MAKING PROCESS:

### A. What is Decision?

A decision is the selection of an action from two or more alternative choice<sup>25</sup>. In other words, in order for a person to make a decision, there must be a choice of alternatives available<sup>26</sup>.

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<sup>23</sup> Jagadish N. Sheth, Bruce Newman and Barbara L. Cross. "Why We buy What We buy: A theory of Consumption Values" A Journal business Research (Quoted in Ibid P. 586),

<sup>24</sup> Leon G. Schiffman & Leslie Lazar Kanuk, Consumer Behaviour 4th Ed. (New Delhi: Prentice Hall of India Pvt. Ltd. 1993). P. 586-87..

<sup>25</sup> This definition is similar to the one suggested in Irwin India D.J. Bross. " Design for Decision" (New York: Freepress 1953).

<sup>26</sup> Schiffman and Kanuk. Op. Cit. (1990) P. 625.

Decision problem is presented as a choice between status quo and some alternatives. A decision, therefore, is a course of action consciously chosen from the available relevant alternatives for the purpose of achieving desired objectives<sup>27</sup>.

A decision is a Judgment. It is a choice between alternatives. It is rarely a choice between right and wrong<sup>28</sup>.

### **B. Views of Consumer Decision Making:-**

There are four views of consumer decision-making:<sup>29</sup>

- i. An economic View.
- ii. A passive View.
- iii. A cognitive View.
- iv. An emotional View.

### **C. Model of Consumer Decision Making**

The model of consumer decision making that reflects the cognitive (I.e problem solving) consumer and, to some degree, the emotional consumer. The model is designed to tie together many of the ideas on consumer decision making and consumption behavior. The model presented three major components: input process and output<sup>30</sup>.

#### **Input:-**

The input component of consumer decision making model drawn on external influences that serve as sources of information about a particular product and influence a consumer's product-related value, attitudes and behavior. Among these input factors are the marketing mix activities of organizations (i.e. product's package, size and, guarantees; mass media advertising: direct-marketing: personal selling and :other promotional efforts: pricing policy,

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<sup>27</sup> Joseph L. Massie, *Essentials of Management*. (Prentice Hall. 1971. P. 52.

<sup>28</sup> Peter ducker, *Management Tasks. Responsibilities. Practice*. (India Allied Publishers. 1975) P. 470.

<sup>29</sup> Leon G. Schiffman & Leslie Lazar Kanuk, *Consumer Behaviour*, 6 Ed. ., New Delhi): Prentice Hall of India Pvt. Ltd. 1997. P. 560.

<sup>30</sup> Ibid P. 564.



selection of distribution channels) and non marketing socio-cultural influences (i.e., social class, culture and sub-culture) affect the consumer's purchase decision.

**Process:-**

The process component of the model is concerned with how consumers make decision. In this process influence of the psychological concepts examined. The psychological field represents the internal influences (motivation, perception, learning, personality and attitudes) that affect consumer decision making process (what they need or want, their awareness of various product choices, their information- gathering activities, and their evaluation of alternatives). As the process component of the overview decision model the act of making a consumer decision consist of three stages:

- a) Need recognition
- b) Pre-purchase search
- c) Evaluation of alternatives.

**Output:-**

The output portion of the consumer decision-making model concerns two closely associated kinds of post decision activity:

- a) Purchase behavior, and
- b) Post Purchase evaluation.

**D. Consumer Decision Making Process:-**

"A consumer's decision making process as he makes his choice from among different products is quits complex. A number of factors, such as the image of the manufacturer, the price of the product, its quality, its brand name and packaging, influence his decision as also the choice he makes<sup>31</sup>."

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<sup>31</sup> Subhash C. Mehta, Indian Consumers. Studies and Cases for Marketing Decision Second Re-print, Tata McGraw Hill Publishing Co. Ltd. 1978. P. 53.

"A consumer has to pass through six stages to complete the buying process. These stages are: need or problem recognition, search, evaluation, Purchase, Post-purchase evaluation, and product dispositions<sup>32</sup>. "

The problem solving perspective, then, encompasses all types of need satisfying behavior and wide range of motivating and influencing factors. Broadly speaking, consumer decision making takes the form the following steps<sup>33</sup>.

- i) Need recognition:- The consumer perceives a difference between the desired state of affairs and the actual situation sufficient to arouse and activate the decision process.
- ii) Search for information:- The consumer searches for information stored in memory (internal search) or acquires decision - relevant information from the environment (external search).
- iii) Alternative evaluation:- The consumer evaluates options in terms of expected benefits and narrows the choice to the preferred alternative.
- iv) Purchase:- The consumer acquires the preferred alternative or an acceptable substitute if necessary.
- v) Outcomes:- The consumer evaluates whether or not the chosen alternative meets needs and expectations once it is used.

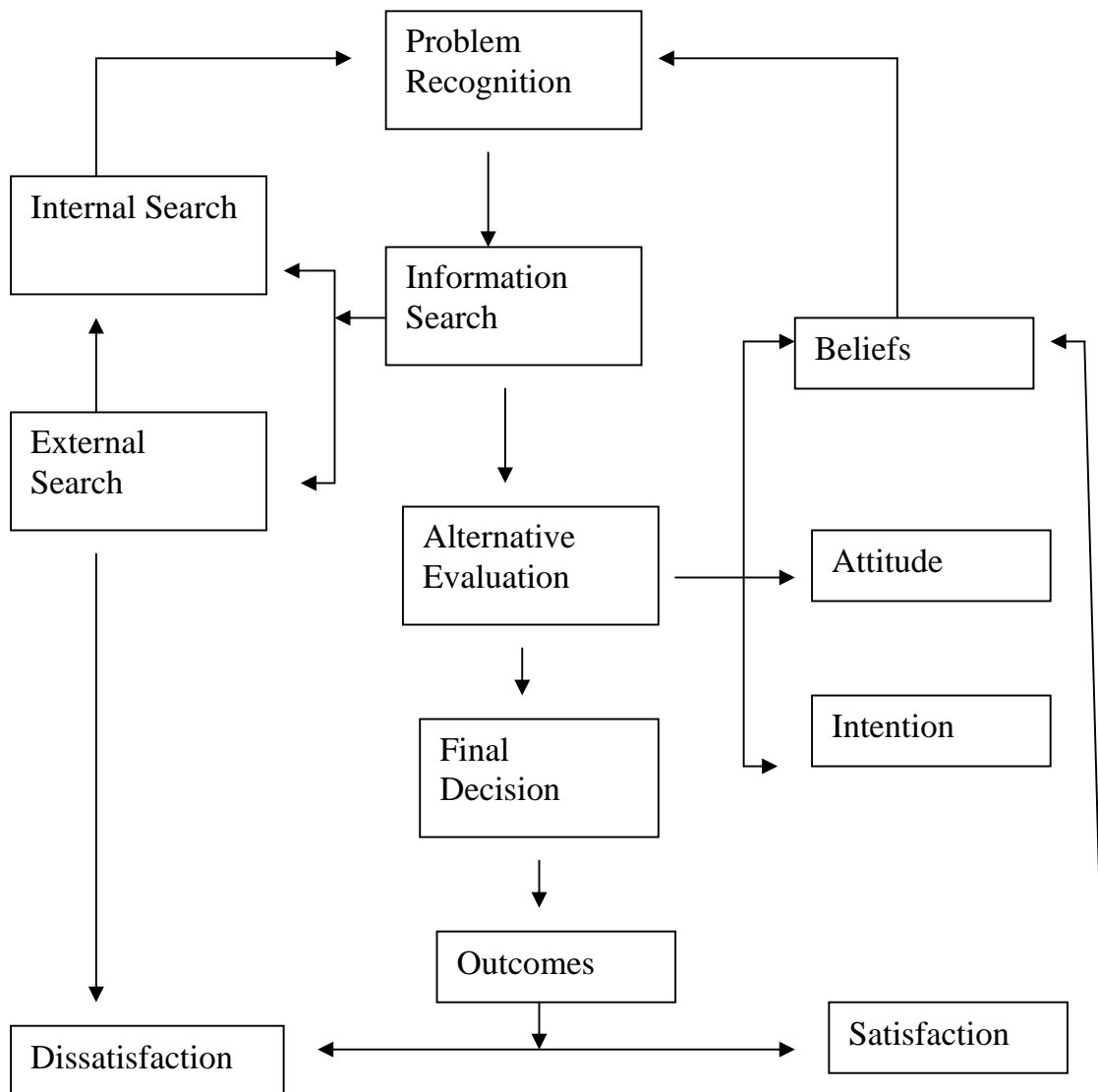
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<sup>32</sup> K.D. Koirala Fundamental of Marketing Decisions. 5th Ed. (Kathmandu: M.K. Publishers & Distributers. 2056 B.S.) P. 78

<sup>33</sup> James F. Engel-Roger D. Blackwell-Paul W. Miniard. Consumer Behaviour, 6 th Ed. PP. 26 -27.

## Model of Consumer Decision Making Process

Figure :-1



Source : Prakash Lamichhane "Family Influence in Buying Decision" Unpublished Master Thesis, T.U may 1996, P.9

### 2.9 Review of Past researches in Nepal about the Telecommunication Services.

In order to Understand the growth of communication services, present status of tele-communication services and other information about the tele-communication facilities, the researcher found some researches that have been completed on "Mobile Phone Services in Nepal" which are given below.

### **2.9.1 "A Study on Marketing of mobile Telephone Services in Nepal"**

(With special References to Kathmandu Valley)

Mr Tej Prasad Bashyal had carried out a research entitled "A study on marketing of mobile Telephone service in Nepal" in 2057B.S. The major objectives of this study were to examine the marketing approach of N.T.C for marketing and promote of mobile phone to know the facilities of mobile phone and to take the opinion from the mobile phone users. For this purpose, primary data were connected from 100 customer with the help of well structure questionnaire and Secondary reports were collected various annual reports MIS Report of NT and TU Journals and Periodicals. The major findings of his study were as follows.

1. N.T.C is introducing mobile telephone services only in four regions: Kathmandu Valley, Pokhara, Birgunj and Biratnagar. There are also big cities like Bhairhawa, Nepalgunj, Dhangadhi, and Janakpur which are also famous in terms of area, population, industrialization and tourism but they are ignored in first phase of launching mobile telecom.
2. When mobile telephone was just introduced into Nepalese market the application forms for the mobile line were not registered as NTC's expectation because of expansive cost of mobile telephone and it's high deposit system as well as lack of detail information about it's various utilities.
3. Consumer get knowledge about mobile telephone and it's various services through different media of advertising. Basically various news paper, magazine, F.M radios and Television Commercial are used as a media of advertising.
4. The number of mobile lines consumed by Tourism sectors (Hotel, Airlines), Backing Sectors Projects and other companies are high in comparison to the other sectors.

5. As regards to the revenue collection the amount of bill receivable is in increasing trend and there is no proper policy to collect revenue except line disconnection.
6. All mobile subscribers use mobile telephone for voice and they also use call forwarding service.
7. The main effecting element of mobile telephone is it's charging system. NTC is charging Rs.6 per minute for out going local call and Rs.3 per minutes for it's incoming call. It makes the mobile users hesitating to receive incoming calls. They first confirm whether the incoming call is from identified person or not. Majority of officials and professionals use return back calls from ordinary telephone instead of receiving incoming call of mobile telephone.
8. The billing system of mobile telephone is not satisfactory since it does not include all details of outgoing and incoming calls.
9. Majorities of mobile users are dissatisfied with international trunk charge of mobile telephone since this charge is going down ward because of email and internet service.
10. The selling price of mobile telephone that imposed by N.T.C is more expensive than the open market price N.T.C 's financial statement 2055 / 56 shows that it is selling mobile set by including 54.60 percent profit in it's original cost where as it sells other ordinary telephone set by adding 25 to 27 percent profit.

### **2.9.2 "The use of cell phone in everyday life Among Teenagers in Kiritipur Municipality Kathmandu Nepal"**

Another research entitled " The use of cell phone in Everyday life Among Teenagers in Kirtipur municipality, Kathmandu Nepal in Dec. 2008" had carried out by Ram Chandra Baral. The major findings of his study were as follows:-

1. Most of the teenagers were aware of the advantages and uses of mobile services. While younger teens seemed more excited. About its uses and diverse facilities available the elder teens were more aware of the possible negative sides of it. From the perspective of gender, there are not marked. Variations between the view of the male and Female respondents. However when some differences were found, female teenagers seemed more sensitive to aspects of cell phone which might influence negatively to our society.
2. Mobile technology has enhanced the culture of close relationship between the teens of opposite sex was most of teens reported to have used mobile service primarily to communicate 'interact with their boy / girl friends.

Similarly the search for individual secrecy is a top propriety (it might perhaps be concluded that they even did not want to share openly with their family) Therefore teens preferred SMS over voice call and mobile communication over land - line service is getting limited. More over use of cell phone has some how helped in enhancing confidence in speaking with people other than their family members or friends.

3. Although most of the teenagers used their cell phone economically it has created extra financial burden on the part of guardian/parents, parent/guardians, required extra awareness of the teenagers, 'expenditure on the cell phone and if they are actually within the limit of finance available to them a significant proportion of the teenagers hesitated to spell out the source of financing. Similarly, the use of mobile technology has been encouraged a culture where the teenagers, gave more information to the relationship with their girl/boy friends. Affecting the relationship with family and relationships.

In this way past researches on mobile phone services were mainly concerned with the Kathmandu Valley. Thus this study is carried out to reveal the present situation of available communication services as well as service marketing of cellular GSM mobile phone and consumer's response about it in Kaski district.

## **CHAPTER - THREE**

### **RESEARCH METHODOLOGY**

#### **Research Design**

After exploring the second sources of information about different aspects of service marketing of cellular 'G.S.M' mobile phone primary. Information were generated through interview with mobile phone users. The study is, therefore, exploratory as well as descriptive in nature. To collect primary data a survey research design has been applied in the study.

#### **3.2 Sources of Information/ Data**

The present study is based on secondary as well as primary sources of information/data. A secondary source of data includes various periodicals, annual reports and MIS reports that were published by N.T (Nepal Telecom). Besides Concerned Department, section head were interviewed for the clarification of the data.

Primary sources of information were the people using mobile telephone service provided by N.T.

#### **3.3 Sampling Plan**

The total number of people using cellular (G.S.M) mobile phone services of N.T in Kaski district represent the population of the study.

Sample unit of the study comprises the individual users who own the mobile phone. As the population of the study was too large a sample of 100 mobile phone users. In which 25 mobile phone users from each election region of Kaski district were selected on the basis of Judgmental sampling.

### **3.4 Data Collection Procedure**

For collecting primary data some of the above mentioned population was interviewed by telephone through self- administered questionnaire. And rest of population was interviewed with structured questionnaire which were distributed in the field survey. Sample of the questionnaire has been presented at appendix.

Similarly the secondary data and information were collected through publication of N.T booklets and MIS reports and Annual Reports Lying at library of N.T office in Pokhara, other magazines and T.U journals would also be used western regional Library P.N campus Pokhara.

### **3.5 Method of Analysis**

The collected data were thoroughly checked, compiled and presented in appropriate table to facilitate analysis and interpretation. Analysis was done descriptively as well as statistically. For the analysis, statistical tools such as average, percentage etc has been used. For collecting primary data, some of the above mentioned population was interviewed by telephone through self - administered questionnaire. And rest of the population were interviewed with structured questionnaire which were distributed in the field visit. Sample of the questioners has been preempted at appendix.



## **CHAPTER - FOUR**

### **DATA PRESENTATION AND ANALYSIS**

In this chapter, the data collected from the official periodicals, MIS Reports as well as from the respondents are presented analyzed and interpreted according to the objectives of the study.

#### **Analysis and Interpretation of Data:-**

The study has been guided by four objectives. In order to meet these objectives the collected data have been analyzed and interpreted d on objective - wise basis.

#### **4.1 Marketing Approach of N.T for service marketing of cellular (GSM) mobile phone in Kaski district:**

The first objective of this study was related with the marketing approach of N.T (Nepal Telecom) for service marketing of mobile phone in Kaski district. To know about this the researcher has taken the data about cellular G.S.M mobile phone from the N.T office Pokhara. By the visit and with the help of some periodicals and MIS Report published by Nepal Telecom, the researcher find out the service marketing activates of N.T related to the cellular G.S. M mobile phone service.

Actually the marketing approach of any organization in connection with exchange of goods and services can be studied with in the circumstance of marketing mix or 4 Ps variables. (i.e., product, price, place and promotion) Thus the researchers also tries to study the marketing aspect of G.S.M mobile phone service keeping it with in these circumstances.

##### **4.1.1 Product (Mobile Phone and it's services)**

According to William J Stanton, "a product is a complex of tangible and intangible attributes including packaging, colour, price manufacture's prestige

and retailer's prestige and manufactures and retailer's services which the buyer may accept as offering satisfaction of wants or needs<sup>34</sup> similarly Philip Kotler defines product as a "bundle of physical service and symbolic particulars to the buyer."<sup>35</sup>

In this context cellular mobile phone is also an electronic wireless product that satisfies the consumer's basic need of communication. Mobile phone in itself is nothing but only on equipment and most important thing is it's various communication services that are attached with it. Thus while marketing mobile phone as a product the communication service is also associated with it and in this study also the market of mobile phone as well as it's various services in Kaski district are studied together.

#### **4.1.2 Features of Mobile Set.**

A mobile hand set has the following features:

- a. Supports essential functionality of G.S.M.
- b. Light and handy (weighting about 300 grams)
- c. Rechargeable battery with talk time of 3- 4 hours and stand by time of 60 - 100 hours.
- d. Alphanumeric keys (both in numeric and alphabetical)
- e. Character display (short message can be displayed)
- f. Calling line identification presentation.

#### **The Mobile sets have the Following Additional Features.:**

- i. Conference call,
- ii. Data- voice mail service.
- iii. Support up to 9.5 K.B.P.S
- iv. Short messages sent and receive.

for providing mobile phone service M.T has installed G.S.M exchange. Line in recent years.

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<sup>15</sup> Kulnar Singh Sheresth, marketing management concept and strategy, (Kathmandu Nabin Publishers, 2051) P.152

<sup>16</sup> Ibid

### **4.1.3 Features of Cellular 'G.S.M Mobile**

Actually the basis of cellular communication is a Radio cell. A cell is nothing in it self but is an area from where a subscriber can make or receive calls. Each cell is covered by a station called Base station. When a large number of such cells are created a wide continuous coverage area is formed. A mobile subscriber can make or where within such coverage areas. The communication service provided by G.S.M is of good quality and fully secure.

Since mobile telephone is based on G.S.M latest and popular technology in the field of communication. It bears the following important features.

#### **a. National Roaming:**

Subscriber can travel to different areas of the country and can make or receive calls with their same mobile set and same number .However the capability or receive calls at any place depends on the availability of coverage frequency. In Nepal N.T has started G.S.M cellular mobile service in the year 1999. Since then the service has been expanded to various cities throughout the country. Therefore a subscriber can roam to more places with their mobile set.

#### **b. International Roaming:-**

G.S.M Technology was development primarily to have a standard system that grants wide area mobility. The subscriber may travel to another country which has a G.S.M network and can make or receive calls with their own mobile paying later at home, provided their is an agreement between the G.S.M network operators of countries. N.T started this service from 2001 and currently N.T has agreements with 136 partners in 41 countries from international roaming service and about 20 partners in 15 countries are in queue for new agreements subscribers of N.Ts G.SM service have taken to carry their own mobile and SIM card to any of the above mentioned countries.

#### **4.1.4 Services from G.S.M Technology.**

The service available in G.S.M technology can be divided in to two classes' main service and supplementary service.

**a. Main service:**

The main services available in G.S.M as follow.

1. Voice (Regular Telephone and Emergency)
2. Fax
3. Data
4. V.M.S (voice mail system)
5. S.M.S (short message service)

Short message service (S.M.S) enables a means of exchanging short text message up to 160 characters between mobile telephone and other networks

**b. Supplementary Services:** In addition to the above mentioned main services, the following supplementary service are also available in G.S.M Network.

**Table 2**

Supplementary Services of G.S.M Phone.

S.N	Types of supplementary services	Characteristics
1	calling line identification	Displays the number of calling party to recipient
2	Call forward	A subscriber can forward his call to any other number in mobile or fixed networks
3	Call Barring	A subscriber can bar incoming calls or outgoing calls or long distance calls
4	Call hold	A subscriber can place on active call hold .
5	Call waiting	A subscriber who is already engaged in a call can be notified of another incoming call
6	Multiparty service	A subscriber can create a call with two other parties
7	C.R.B.T and G.P.R.S service	A subscriber can take enjoy from music system by G.S.M mobile phone.

Source "G.S.M 900 cellular mobile system in Nepal - 2056"

All the figure presented above give the introduction and features of mobile phone G.S.M technology and it's services.

#### **4.1.2 Price (cost & Tariff)**

In general price is value or amount of money sacrificed to obtain a particular product or services and in economic sense price is value-expressed in terms of rupee or dollars or any monetary medium of exchange.<sup>36</sup>

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<sup>36</sup> Shayam Krishan Shrestha, Marketing Strategy and Management (Kathmandu Padma Educational Traders, 1992) P. 112

Actually price is regarded as a backbone on which the success of marketing program largely depends on. NO product, no design and no marketing strategy can be formulated without consideration of price.

Price setting has become one of the most complicated and competent jobs these days because it is directly concerned with the objectives of the organization and the supply, competition, market rate and other marketing mix.

There are several methods of pricing and it can be categorized into three ways.

- i. Cost oriented Pricing
- ii. Demand oriented pricing and.
- iii. Competition oriented pricing.

If the price is fixed on the basis of cost it is said to be cost oriented pricing. Under cost oriented pricing different companies use different methods. Such as mark up pricing, target return pricing, marginal cost pricing, average cost pricing, break even pricing method etc. But in demand oriented pricing the price demand is i.e., price rate may be fluctuant reversibly according to the fluctuation of product's demand. Similarly in competition oriented pricing price is charged accounting product will be in same level as the competitions product.

In the context of cellular mobile phone service, N.T has adopted cost oriented pricing method. In this research the researcher has given the price of different types of calls from mobile service. The tariff rate of mobile call imposed by N.T vary with the types of calls, the time duration taken by the call, types of Net work and the time on which the call occurs i.e. Day time / Night time etc.. The details of tariff rates are shown in the following tables

**Table- 3**

The Tariff rates of call of N. T's Net Work (GSM, PSTN, CDMA, and VSAT) within zone from Mobile Service.

	per minute (ATC) Tariff (Rs)			
	peak hour (0800 - 2000)	Pulse Duration/ Rate	off peak hour (2000- 0800)	Pulse Duration / Rate
<u>A. GSM mobile service</u>				
post paid mobile (sun - fri)	2.40	15sec/Rs0.60	1.00	15sec/Rs.025
Post paid mobile (sat)	1.00	15sec/Rs.0.25	1.00	15sec/Rs.025
prepaid mobile (sun - fri)	3.20	15sec/RS0.80	2.00	15sec/Rs.025
Prepaid mobile (sat)	2.00	15 sec/Rs0.50	2.00	15sec/Rs.025
<u>B. CDMA mobile service</u>				
prepaid mobile (sun - fri)	2.70	15sec/Rs0.68	2.00	15sec/Rs.025
prepaid mobile (sat)	2.00	15sec/Rs0.50	2.00	15sec/Rs.025

Source: News letter of Nepal Telecom Bio Monthly Kartik Mangier 2065

#### Working Note

Average rate of call of post paid mobile service from Sunday to Saturday.

$$= \frac{2.40 \Gamma 1.00}{2} = \text{Rs } 1.70$$

Average rate of call of prepaid mobile service from Sunday to Saturday.

$$= \frac{3.20 \Gamma 2.00}{2} \times \frac{5.20}{2} = \text{Rs.}2.60$$

Average rate of call of C.D.M.A mobile service from Sunday to Saturday.

$$= \frac{2.70 \Gamma 2.00}{2} = \frac{4.70}{2} = \text{Rs}2.35$$

- B. The tariff rates of call of NT's network (GSM, PSTN, CDMA, VSAT) in outside zone from mobile service.

**Table - 4**

**The Tariff Rates of Call of NT's Network (GSM, PSTN, CDMA, VSAT)  
In Outside Zone from Mobile Service**

	per minute (ATC) Tariff (Rs.)			
	peak hour (0800 - 2000)	Pulse Duration/ Rate	off peak hour (2000- 0800)	pulse Duration / Rate
<u>A. GSM mobile service</u> post paid mobile (sun - fri)	3.40	15sec/Rs0.85	2.00	15sec/Rs.0.25
Post paid mobile (sat)	2.00	15sec/Rs.0.50	2.00	15sec/Rs.0.25
prepaid mobile (sun - fri)	4.20	15sec/RS1.05	3.00	15sec/Rs.0.75
Prepaid mobile (sat)	3.00	15 sec/Rs0.75	3.00	15sec/Rs.075
<u>B. CDMA mobile service</u> prepaid mobile (sun- fri)	3.70	15sec/Rs0.93	3.00	15sec/Rs.0.75
prepaid mobile (sat)	3.00	15sec/Rs0.75	3.00	15sec/Rs.0.75

Source: News letter of Nepal Telecom Bio monthly Kartik Mangsir 2065



Working note

Average rate of call of post paid mobile service from Sunday to Saturday. In out side zone.

$$= \frac{3.40 \Gamma 2.00}{2} \times \frac{5.40}{2} = \text{Rs}2.70$$

Average rate of call of prepaid mobile service from Sunday to Saturday in out side zone.

$$= \frac{4.20 \Gamma 3.00}{2} \times \frac{7.20}{2} = \text{Rs}3.60$$

Average rate of call of CDMA mobile prepaid service from Sunday to Saturday. in out side zone.

$$= \frac{3.70 \Gamma 3.00}{2} \times \frac{6.70}{2} = \text{Rs} 3.35$$

Note the present distance charge of PSTN service of next Zone from mobile service is Rs. 1 per minute per call.

Source : News letter of Nepal Telecom Bi0 monthly, Kartik-Mangsir, 2065

The above data shows that Nepal Telecom has charged the tariff rate of call from mobile service from one places to another places.

**C. Installation Charge for the Customer and it's Procedure.**

A person wishing to have a mobile phone must fill - up an application form as prescribed by NT New Service Department. The customers should pay NRS 50 for the application form. The following document and description should be attached with the application form.

- Citizenship
- A copy of photo (PP size)

Types of phone and Installation cost are given in the following tables.

**Table - 5**  
Types of Phone and Installation Cost

Types of phone	Installation charge. (in Rs.)
Namaste post paid	12750 (with I.S.D)
Namaste prepaid	1135
C.D.M.A post paid	27,506 (set 805 and 820)
C.D.M.A prepaid	set - 7990
P.S.T.N	4130
Sky prepaid	1135

Source : N.T s MIS Report bimonthly Poush, Magh 2065 B.S.

### 4.1.3 Promotion

Promotion involves the exchange of information between buyers and sellers. The main task of promotion is to inform and persuade consumers to respond to the product or services being offered.<sup>37</sup> Under promotional strategies, advertising, publicity, personal selling, public relation, sales promotion, etc are included.

Different marketing organizations use different types of promotional strategy that are mainly based on nature of the product and the time of advertising. In the context of N.T for the promotion of mobile service it has providing various information about GSM (Mobile) service by publishing them in large scale. Mainly such information are concerned with.

- Types of services.
- Features of GSM service.
- Features of Mobile set.
- Coverage area
- Tariff rate
- Installation procedure and charges.
- Contact places and telephone numbers.

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<sup>37</sup> Kinner and Bernhard, Principle of Marketing, (Glenview: Scott Foresman and Company, 1983) P. 163

In this context the researcher has given the details of promotional strategy in next objectives.

The above-mentioned information are published in various book lets telephone directories NT's MIS Reports, Souvenir of NT as well as of other organization, Daily News paper, weekly / fortnight/ monthly/ and bimonthly magazines for the marketing and promotion purpose of mobile service.

In this context the researcher has given the details of promotional strategy in next objectives.

#### **4.1.4 Place and Distribution**

Place is also an important variable of marketing. The choice of any place largely depends on the nature and characteristics of the product. Thus before launching any product or service, it is necessary to analyze the features of product and service as well as the additional feature of such places so that right goods and services can be distributed at right places which helps for the better consumption and expansion of it's market.

In this context the researcher has taken the data from NT's MIS Reports news letter and annual reports about service marketing of cellular GSM mobile phone in Kaski district from Nepal Telecom office, Pokhara. The other details are given in the following tables and some other information are shown in the appendix.

**4.1.4. a. Service marketing area of Nepal Telecom about 'G.S.M.'  
'P.S.T.N. ', 'C.D.M.A' and 'V.S.A.T' phone in Kaski district.**

**Table 6**

Kaski Election Region No. 1

S.N	Name of V.D.Cs/ Municipality
1	Parche V.D.C
2	Namarjung "
3	Saimarang "
4	Thumako Danda "
5	Thumki "
6	Hanmspur "
7	Majhathana "
8	Kalika "
9	Rupakot "
10	Siddha "
11	Daurali "
12	Mijure Danda "
13	Vhachok "
14	Sildujure "
15	Lekhanath Municipality


Source: District Development Kaski

**Table 7****Kaski Election Region No. 2**

S.N.	Name of V.D.C. / Municipality
1.	Armala V.D.C
2.	Lamachaur "
3.	Bhalam "
4.	Kandhu "
5.	Arba Bijay "
6.	Mauja "

Source: District Election Commission, Kaski

**Table 8****Kaski Election Region no. 3**

S.N.	Na me of V.D.C. / Municipality
1.	Bharat Pokhari V.D.C
2.	Nirmal Pokhari "
3.	Krishti "
4. 	Pokhara Sub-Metropolitan Pokhara.

Source: District Election Commission, Kaski

**Table 9****Kaski Election Region No. 4.**

S.N	Name of V.D.Cs/ Municipality
1	PuranChaur VDC
2	Sardi Khola VDC
3	Machha Puchhre VDC
4	Ghachok VDC
5	Lahachowk
6	Ribhan VDC
7	Lwang Hhalel VDC
8	Dhital VDC

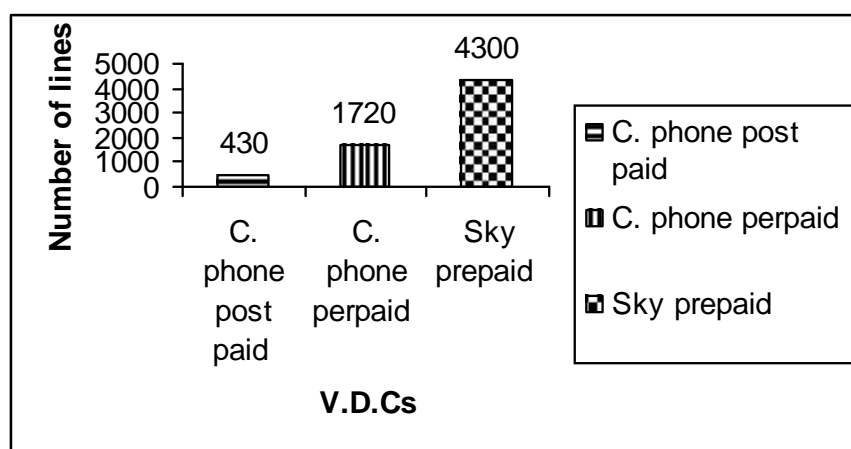
9	Dhampus VDC
10	Hemja VDC
11	Dhikur Pokhari VDC
12	Lumle VDC
13	Ghandruk VDC
14	Dangsing VDC
15	Salyan VDC
16	Bhadaure Tamagi VDC
17	Chapakot VDC
18	Kaski kot VDC
19	Sarangkot VDC
20	Pumdi Bhomdi VDC

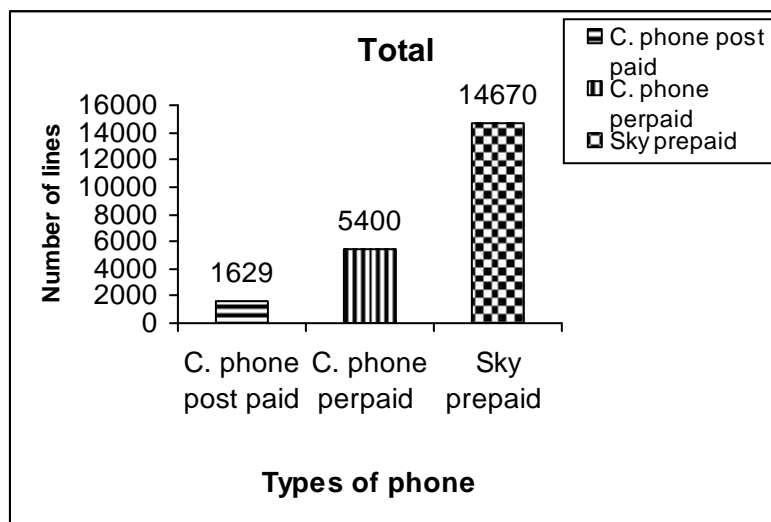
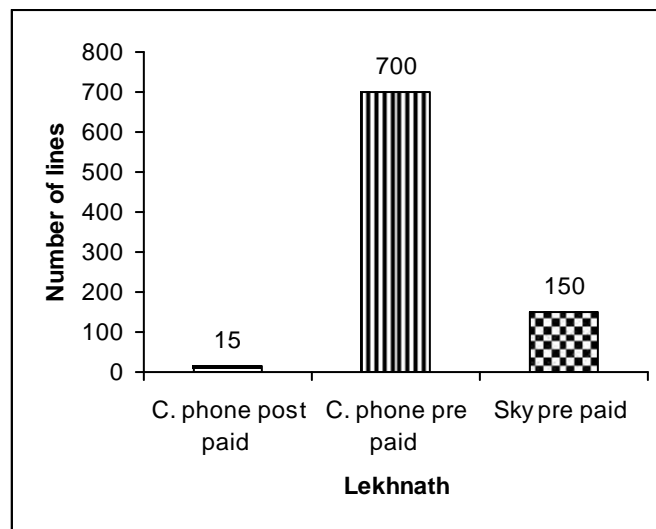
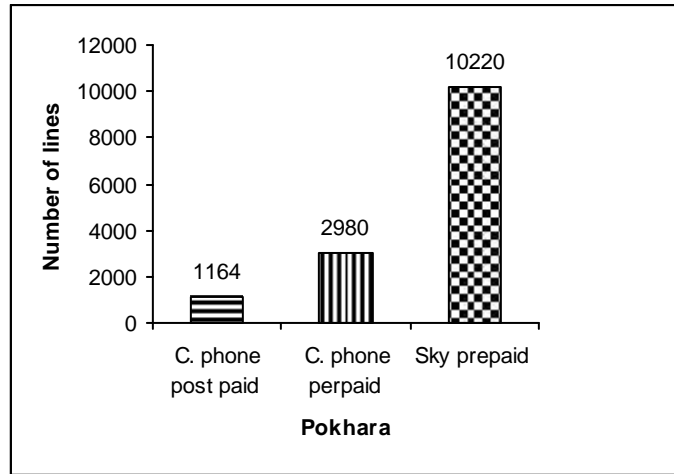
Source: District Election Commission, Kaski

The above data shows that there are 43 VDCs one Municipality (Lekhnath) and one sub - Metropolitan city (Pokhara) in Kaski district. N.T has been distributing the different types of phone in these areas of Kaski District.

#### 4.1.4 b. Distribution of C. Phone (Pre Paid and Post paid and sky prepaid phone in Kaski district (Up to Magh - 2065 B.S)

Figure -2





Source: N.T's MIS Report bimonthly (Pause - Magh) 2065 B.S

From the above diagram the researcher found the number of 1629 lines of C. Phone post paid, 5400 lines of C. Phone prepaid and 14,670 lines of sky prepaid

phone, were distributed up to Magh 2065 in 43, VDCs, Lekhnath Municipality and Pokhara Sub-Metropolitan city of Kaski district.

#### 4.1.4 C. Distribution of G.S.M lines in Gandaki Zone

**Table 10**

Distribution of G.S.M lines in Gandaki Zone

Service Type	Number in 2064/65	Number in 065/66 up to Kartik	Total Number up to Mangshir
Prepaid (Namaste)	109, 000	57,173	167,295
Post Paid Namaste	85,00	219	8,739
Total	117, 500	57,392	176,034

Source: N.T's MIS report Bi-monthly Kartik, Mangsir - 2065 B.S

Working Note

Percentage increase of Total Prepaid and post paid Mobile is.

$$= \frac{57,392}{117,500} | 100$$

$$= 48.85 \%$$

#### 4.1.4 D. Current G.S.M, B.T.S sites in Kaski District up to Mangsir 2065B.S

**Table 11**

Current G.S.M, B.T.S Sites in Kaski District up to Mangsir 2065 B.S.

S.N	Site name	CTE, BTS	Huawei BTS
1	Rani Pauwa	S 444/S 666	
2	Prithvichok	S 444/ S 666	
3	Balmandir Nadipur	S444	S444/S444
4	Zero (o) k.m		S 444/S444
5	Pardi	S444/ S444	
6	Phalepatan	S444	S444/S444
7	Amarsingh Chowk		S444/S444
8	Baidam	S444/S444	S222/S444



9	Hallan chowk		S222/S444
10	Rithepani	S444/S444	
11	Gagangauda	S444/S666	
12	Sundaridanda	S444/S666	
13	Snowland Hotal	S444/S666	
14	Chorepatan	S444	
15	Sarangkot		S204
16	Gharmi	S444	S444
17	Lamgaon		S444/S444
18	Mahendrapool	S444/S666	
19	Kahundanda	S222	

Source: N.T's MIS report Bi-monthly Kartik, Mangsir - 2065 B.S

From the above table shows that there are 19BTS in Kaski district up to Mangshir 2065 B.S.

#### 4.2 Promotional Strategy of Cellular GSM Mobile Phone Service in Kaski District.

To meet the objectives the researcher has taken the some data from Annual Reports, MIS reports and news letter of Nepal Telecom office Pokhara. The researcher has not found the promotional strategy of Nepal Telecom in Kaski district only but the researcher has found some promotional strategy of Nepal Telecom in whole Nepal. Some promotional strategies are as follows:-

##### **4.2.1. A. Future Strategy of G.S.M mobile Network Expansion:**

Nepal Telecom started G.S.M cellular mobile service in the year 1999. Since then the service has been expanded to various cities throughout the country. A total of 153 BTSs have been installed in the Kathmandu valley and 317 BTSs in Biratnagar, Birgunj, Bhairahawa, Nepalgunj, Dhangadi and Pokhara Region to expand it's network. AT present N.T has a total of 12,18,000 mobile subscribers in the country and it's demand has been growing tremendously since the past few years.

In the current 11 the plan N.T intends to expand the existing G.SM network by adding 3.5 millions subscriber lines to make the G.SM penetration from the current 2.7% to 16% with the population coverage of about 45% . The project has been divided in to three different regions namely: Network I, Network II and Network III and shall be implemented fully on trunk key basis. Network III shall cover three development regions i.e, the western development Region (WDR) Mid- Western Development Region (MWDR) and for western development Region (FWDR) . Where as Network III shall cover Eastern Development Region (EDR). Each network shall cover the district head quarters, major towns commercial center and high ways with in the respective development regions. The remaining parrots of the country i.e the Center Development Region shall be covered by Network I, with the exiting elements and new expansions.

#### **4.2.2. Present strategy of Nepal Telecom about G.S.M and CDMA (sky) mobile phone service.**

Recently Nepal Telecom has carried out the promotional discount in National and international call from mobile service PSTN, C phone and VSAT service. The details are as follows.

The promotional tariff rates of N.Ts mobile to mobile service and mobile service to PSTN (without VSAT) service with in zone.

**Table 12**

**The Promotional Tariff Rates of NT's Mobile to Mobile Service and  
Mobile Service to PSTN Without VSAT Service With in Zone**

Time	8am to 8 pm		6 am - 8 am to 8am - 10 pm		10 pm to 6 am
Types of service	present Rate per min	New Rate per minute	P.R per min.	N.R per/ min.	75 paisa per min
a. G.SM post paid mobile service (sun- fri) Sat	Rs2.40	Rs1.66	Rs1/00	has not change	75 paisa per min
	RS 1/00	has not change	RS2/00	has not change	75 paisa per min
b. G.SM prepaid mobile service (sun - fri) Sat	Rs3 / 20	Rs2/00	Rs 2/00	has not change	75 paisa per min
	Rs 2/00	has not change	Rs 2/00	has not change	75 paisa per min
C. CDMA prepaid mobile service (sun - fri) (sat)	Rs.2/70	Rs1/80	Rs2/00	RS 1/80	75 paisa per min
	Rs.2/00	Rs.1/80	RS 2/00	1/80	75 paisa per min

Source:- News letter of Nepal Telecom , Bi- Monthly Kartik, Mangsir- 2065 B.S

Form the above Table the researcher found that N.T has discounted it's tariff rate of call to it's customer. From this strategy the customers have taken more facility of N.Ts mobile service.

- C. Some promotional strategies of Nepal Telecom as follows.
- i. Any customer can use international call for America and Canada in only six Rupees for per minutes by using the Easy call card.
  - ii. Dialing 1424 exchange code through Easy call card, the international call for India, Bangladesh, Pakistan, China, Hong Kong, Singapore, South Korea and Taiwan would be 8 rupees per month according to the Discount scheme 2065 B.S.
  - iii. The monthly fee of Voice GSM post paid is reduced in 400 from 500 per month.
  - iv. At the same way those customer who may only use voice service through GSM post paid can be paid 500 rupees as data service and at unlimited usage. Instead of Rs.1100 or they can also be used both volume base Data and Voice service. For other call within country is without any service cost of Government of Nepal.
  - v. For the point of view of students. Nepal Telecom has recently distributed SIM card at RS 610 from Rs.1135 in Kathmandu Valley and in near future this scheme will be implemented in other cities of Nepal by Nepal telecom.
- D. Nepal Telecom has recently changed its tariff rate of international lease line since Kartik 2065 B.S which are give below.

**Table .13**

International Tariff Rate of International Lease line  
Since Kartik 2065 B.S.

Band with	Tariff per month per mbps RS
1-10 Mbps	45,000
11-15 Mbps	43,000
26-50 Mbps	41,500
51-75 Mbps	39,000
76-100 Mbps	37,500
> 100 Mbps	36,00

Source : News letter of Nepal telecom, Bi-monthly Kartik Mangsir 2065

**Table 14**

The Tariff Rates of International Lease Line for Less Than (<)  
1 Mbps Band Width

Band width	Tariff per month Rs
64 Kbps	3,000
128 Kbps	6000
256 Kbps	12,000
512 Kbps	24,000

In this way Nepal Telecom has been serving with promotional strategies to it's customers for national and international level in the field of communication.

#### **4.3. Types of facilities that is used by cellular GSM mobile Phone users from cellular GSM mobile phone service in Kaski district.**

To meet this objective the researcher has taken the data about different types of facilities of GSM mobile phone service from the news paper, Annual Reports, MIS Reports and other magazines of Nepal Telecom office Pokhara. After the deep study of the about mentioned journals the researcher has found the many facilities are used by mobile phone users from the cellular G.S.M mobile phone services in Kaski district. These facilities are described into four ways which are given below.

##### **A. Tele Facilities;-**

Any subscriber of cellular GSM mobile can make all types of local, long distance and international calls, emergency calls (possible without SIM cards) and short message. This enables speech call to be placed between GSM users and telephone subscriber connected to any other telephone net work world wide.

**B. Bearer Facilities:-**

These facilities are also called data facilities. The customer of GSM network can receive or send various data that should have the standard rates of up to 9.6 Kbps. The limitation of bit rate on air interface. Specially equipped GSM terminals can connect with POTs (Plain Old Telephone System) ISDN and packet switched networks for data and fax calls. GSM users can access to internet with a suitable interface to their computer.

**C. Supplementary Facilities.**

Supplementary facilities enhance the basic facilities available to the subscribers. It modifies or supplements basic telecommunication services. Consequently it cannot be offered to a customer as a stand alone service. Some of the supplementary facilities are given below:-

**1. Call Forwarding Facility:**

Any GSM subscriber can transfer the received calls of his mobile phone to any mobile or other numbers of fixed Network.

**2. Call Waiting Facility:**

The GSM subscriber can give signal or can request the third party when he is dialing the same number at the time of two-way conversation is in existence.

**3. Multiparty Facility:**

The GSM subscriber can talk or make provision of talking with two other telephones at a time.

**4. Calling Line Identification Facility:**

The G.S.M subscriber can easily see the telephone number of second party who is dialing in his mobile phone due to its display nature.

**5. S.M.S facility:**

From the G.S.M mobile phone the subscriber can send and receive alphanumeric message up to 160 characters. The S.M.S is similar to paging service but much more comprehensive.

**6. Voice mail Facility:**

The voice mail system in general provides a store and forward medium for voice message, voice and fax message can be stored at the voice mail for the later retrieval by the owner of voice mail in case the user is busy or out of reach. A caller may wish to directly access the voice mail in case he does not want to disturb the mobile user.

**7 National / International Roaming Facilities:**

National and international roaming capabilities has been regarded as a major factor behind the huge success of GSM system. GSM users can carry their mobile (or SIM card) to any other cities or country when G.S.M network is operating and can make or receive calls with his own mobile.

**8. Other latest facilities.**

**a. G.S.M, GPRS (General Radio Pocket Service)**

Using GPRS facility post paid mobile users can access the internet, emails, T.V and send and receive multimedia messages online on their mobile sets, whenever they want it, no matter where they are.

**b. C.R.B.T (Caller Ring Back Tone)**

Nepal Telecom has recently introduced caller Ring Back Tone (CRBT) facility for it's post paid and prepaid mobile users C.R.B.T is set on the mobile number of the called subscriber. When there is an incoming call, a piece of music, advertisement or message present by the called subscriber will be played to the calling party before the called party picks up the phone i.e the caller hears the caller Ring Back Tone set in the system by the called party, instead of he previously monotonous "dudu" sound.

**c. G.S.M Electronic Recharge Facility.**

From this facility Namaste prepaid mobiles users can easily recharge their phone account through A.T.M Booths, internet and point of sales. etc.

**4.4 Consumers Opinion Towards Deposit Amount, Tariff Rate and Billing System Provided by N.T in Kaski district.**

The fourth objective of this study is to take the opinion of cellular 'G.SM' mobile phone users with reference to deposit amount, tariff rate and billing system in Kaski district. With regards to prepare the consumers profile, the samples of 100 line (Mobile user) residing in Kaski district were taken in to account. Those samples were divided in four election regions. Only 25 shambles from each election region of Kaski district were taken in to account. Those 25 samples were divided in five categories i.e businessman, student, Teacher, Farmers and Personnel. Which are presented below.

**Table 15**

Consumers Opinion Towards Deposit Amount of GSM Mobile Phone in Kaski Election Region- 1

Mobile Phone users	High	Accurate	Low	Total
Businessman	1	4	0	5
Student	3	2	0	5
Teachers	2	3	0	5
Farmers	4	1	0	5
Personals	0	3	2	5
Total	10	13	2	25

Source: Field Survey

Working Note :

$$\text{Percentage of Accurate deposit} = \frac{13}{25} | 100 \times 52\%$$

$$\text{Percentage of high deposit} = \frac{10}{25} | 100 \times 40\%$$



$$\text{Percentage of low deposit} = \frac{2}{25} \times 100 = 8\%$$

Consumers opinion towards Deposit Amount of G.S.M mobile phone in Kaski Election Region - 2

**Table 16**

Consumers Opinion Towards Deposit Amount of GSM Mobile Phone in Kaski Election Region- 2

Mobile phone users	High	Accurate	Low	Total
Business men	1	3	1	5
Student	2	3	0	5
Teachers	1	4	0	5
Farmers	4	1	0	5
Personnel	1	3	2	5
Total	9	14	2	25

Source : Field Survey

Working Note:

$$\text{Percentage of Accurate deposit} = \frac{14}{25} \times 100 = 56\%$$

$$\text{Percentage of low deposit} = \frac{2}{25} \times 100 = 8\%$$

$$\text{Percentage of High deposit} = \frac{9}{25} \times 100 = 36\%$$

Consumers opinion towards deposit amount of G.S.M Mobile Phone in Kaski Election Regional. 3

**Table 17**

Consumers Opinion Towards Deposit Amount of GSM Mobile Phone in  
Kaski Election Region- 3

Mobile phone users	High	Accurate	Low	Total
Business men	2	3	0	5
Student	1	4	0	5
Teachers	1	4	0	5
Farmers	3	2	0	5
Personals	0	3	2	5
Total	7	16	2	25

Source field survey

Working Note:

$$\text{Percentage of High deposit} = \frac{7}{25} | 100 \times 28\%$$

$$\text{Percentage of Accurate deposit} = \frac{16}{25} | 100 \times 64\%$$

$$\text{Percentage of low deposit} = \frac{2}{25} | 100 \times 8\%$$

**Table 18**

Consumers Opinion Towards Deposit Amount of GSM Mobile Phone in  
Kaski Election Region- 4

GSM Mobile phone users	High	Accurate	Low	Total
Business men	3	2	0	5
Student	3	2	0	5
Teachers	2	3	0	5
Farmers	4	1	0	5
Personals	1	3	1	5
Total	13	11	1	25

Source: Field Survey.

Working Note:

$$\% \text{ of high deposit} = \frac{13}{25} | 100 \times 52$$

$$\% \text{ of Accurate deposit} = \frac{11}{25} | 100 \times 44$$

$$\% \text{ of low deposit} = \frac{1}{25} | 100 \times 4$$

**Table 19**

Aggregate percentage of Consumers Opinion Towards Deposit Amount of GSM Mobile Phone in Kaski District.

Election Regions	High	Accurate	Low	Total
Election Region - 1	10	13	2	25
Election Region - 2	9	14	2	25
Election Region - 3	7	16	2	25
Election Region - 4	13	11	1	25
Total	39	54	7	100

Source: Field Survey.

Table No 5 gives a clear picture of the Tendency of GSM mobile phone subscribers concerning the deposit system adopted by NT in Kaski district. From the survey, It was found that 54 percent of the subscribers support the present deposit system. They further added that deposit is necessary to control the artificial demand of mobile phone and it helps to NT (Nepal Telecom) in further expansion of mobile service as it helps to minimize the bad debts in to some extent.

Similarly 39 percent customers out of 100, give their views that the present deposit system is very high and it does not match with the average income of general Nepalese people. They take this high deposit as an unnecessary burden on their shoulder. They also suggest that, instead of raising high deposit, N.T should make effective revenue collection policy like giving shorten discount on timely paying customers like Nepal Electricity Authority so that there is on probability of increasing bad debtors.

Only 7 percent subscriber in Kaski district express their opinion that the deposit amount of GSM mobile phone is low. Since it is used not by low - income level people but of high status and it has also more facilities than that of ordinary telephone. They further added that the deposit amount should be different according to the service provided by N.T such as local, STD, IS,D and other services.

**Table 20**

Consumers Ppinion Towards Tariff Rate of Cellular GSM Mobile Phone in Kaski Election Region - 1

Types of call	local call charge				STD charge				ISD charge			
	A	B	C	Total	A	B	C	Total	A	B	C	Total
Mobile phone users												
Business men	3	2	0	5	2	3	0	5	4	1	0	5
Student	4	1	0	5	3	2	0	5	3	2	0	5
Teachers	3	2	0	5	2	3	0	5	3	2	0	5
Farmers	5	0	0	5	4	1	0	5	5	0	0	5
Personals	3	2	0	5	2	2	1	5	4	1	0	5
Total	18	7	0	25	13	11	1	25	19	6	0	25

Source: Field Survey

Symbols

A= High

B= Accurate

C=Low

**Table 21**

Consumer's Opinion Towards Tariff Rate of GSM Mobile Phone in Kaski  
Election Region.- 2

Types of call	local call charge				STD charge				ISD charge			
	A	B	C	Total	A	B	C	Total	A	B	C	Total
Mobile phone users												
Business men	2	3	0	5	3	2	0	5	3	2	0	5
Student	4	1	0	5	3	2	0	5	3	2	0	5
Teachers	2	3	0	5	2	3	0	5	3	2	0	5
Farmers	4	1	0	5	4	1	0	5	5	0	0	5
Personals	2	3	0	5	1	3	1	5	2	3	0	5
Total	14	11	0	25	13	11	1	25	16	9	0	25

Source field survey

Symbols

A= High

B= Accurate

C= Low

**Table 22**

Consumers opinion Towards Tariff Rate of GSM Mobile Phone in Kaski  
Election Region. 3

Types of call	local call charge				STD charge				ISD charge			
	A	B	C	Total	A	B	C	Total	A	B	C	Total
Mobile phone users												
Business men	3	2	0	5	2	3	0	5	3	2	0	5
Student	2	3	0	5	3	2	0	5	4	1	0	5
Teachers	2	3	0	5	2	3	0	5	3	2	0	5
Farmers	5	0	0	5	4	1	0	5	5	0	0	5
Personals	2	3	0	5	2	2	1	5	2	3	0	5
Total	14	11	0	25	13	11	1	25	17	8	0	25

Source field survey

Symbols

A= High

B= Accurate

C= Low

**Table 23**

Consumers Opinion Towards Tariff Rate of GSM Mobile Phone in Kaski  
Election Region- 4

Types of call	local call charge				STD charge				ISD charge			
	A	B	C	Total	A	B	C	Total	A	B	C	Total
Mobile phone users												
Business men	2	3	0	5	3	2	0	5	3	2	0	5
Student	4	1	0	5	2	3	0	5	4	1	0	5
Teachers	2	3	0	5	2	3	0	5	2	3	0	5
Farmers	4	1	0	5	3	2	0	5	5	0	0	5
Personals	2	3	0	5	3	1	1	5	2	3	0	5
Total	14	11	0	25	13	11	1	25	16	9	0	25

Source: field survey

Symbols

A= High

B=Accurate

C= Low

**Table 24**

Aggregate percentage of consumers opinion towards Tariff Rate of GSM  
Mobile phone in Kaski district.

Types of call	local call charge				STD charge				ISD charge			
	A	B	C	Total	A	B	C	Total	A	B	C	Total
Election Regions												
Election Region - 1	18	7	0	25	13	11	1	25	19	6	0	25
Election Region - 2	14	11	0	25	13	11	1	25	16	9	0	25
Election Region - 3	14	11	0	25	13	11	1	25	17	8	0	25
Election Region - 4	14	11	0	25	13	11	1	25	16	9	0	25
Total	60	40	0	100	52	44	4	100	68	32	0	100

Source : Field Survey

Symbols

A= High

B= Accurate

C= Low

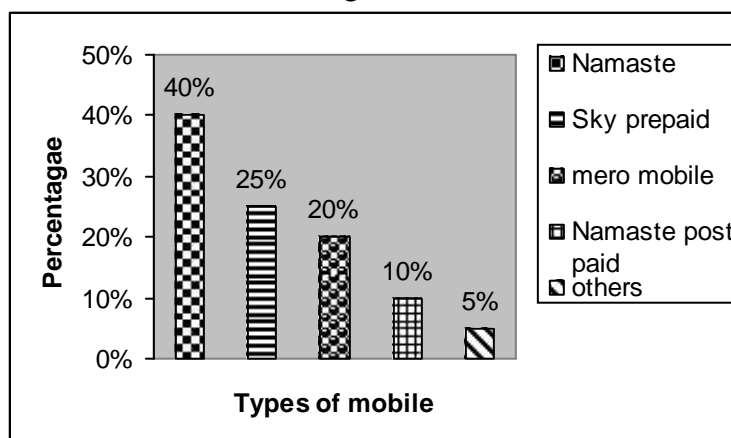
Table 10 shows that for international trunk tariff (I.S.D) charge only 32 percent mobile of mobile subscribers, have positive attitude but the majority of mobile subscribers i.e., 68 percent are disagreed with this in Kaski district. They said that the current ISD charge is getting decreased in international market and thus it should be reduced to a maximum extent. For S.T.D charge 44 percent mobile subscriber have positive attitude and 52 percent of mobile subscribers are disagreed. For local call charge 40 percent mobile subscribers have positive attitude and 60 percent mobile subscriber are disagreed due to different income level, most of the people are disagreed for I.S.D local and S.TD call charge in Kaski district.

#### **4.5 Consumers opinion towards Billing System of G.S.M Mobile Phone in Kaski District.**

According to field survey most of the consumers have positive attitudes for billing system of G.S.M mobile phone. Some of the consumers( i.e who are not educated) have negative attitude for billing system of N.T in Kaski district . A G.SM subscriber can easily transfer or recharge his Account of mobile from sales booth and A.T.M booth.

#### 4.6 Aggregate market position of G.S.M mobile phone in Kaski district.

Figure- 3



From the above bar diagram shows that 40 per call consumers use Namaste prepaid, 25 percent consumers use sky prepaid, 20 percent consumers use Mero mobile, 10 percent consumers use Namaste post paid and 5 percent consumers use other mobile phone in Kaski district.

#### 4.7 Major Findings of the Study:-

The objective - wise analysis and interpretation of data reveals the following finding.

1. N.T.C has been providing various Tele communication services that varies from very old technology to newly developed technologies such as Telegram, Telex, ordinary Telephone, leased line circuits, program transmission service, Bureau fax Service, V.S.A.T. Service, Rural Tele Communications Service G.SM cellular mobile phone service, G.P.R.S, CRBT service, internet and W.L.L etc.
2. N.T Introduced 'Mobile Telephone service in Kathmandu valley from 2055 Chaitra but in other Regions from Aswin 2056 B.S.
3. Up to 2055 B.S N.T had built 17 cell stations in Kathmandu valley and 3 each in Birgunj, Pokhara and Biratnagar Region to distribute mobile lines, yet the main switching and controlling mechanism are in stalled in international gateway Exchange Building-Jawalakhel, Lalitpur. This



centralized controlling and directing mechanism makes little beat difficulty in providing qualitative service to the subscribers of out side the Kathmandu valley.

4. Nepal Telecom was established in 2060 B.S under the company law 2052 B.S with the view of developing the telecom as field of free and competed serviceable sector, the private sector also involving with in it.
5. According to the market expanse data, Nepal Telecom success to increase it's customer number in 32,00,000 from 4,22,000 during the last five years.
6. N.T has established P.S.T.N service in 73 district and G.S.M and C.D.M.A Technology in 75 district under it's fundamental services.
7. Those people who use the G.S.M cellular mobile phone are called the consumer of the product 'G.S.M mobile phone'.
8. Cellular G.S.M mobile phone has played vital role to it's customers in the field of communication in Kaski district.
9. Average rate of call of prepaid mobile service from Sunday to Saturday within zone is Rs 2.60
10. Average rate of call of C.D.M.A (prepaid) mobile service from Sunday to Saturday within zone is Rs.2.35
11. Average rate of call of prepaid mobile service from Sunday to Saturday in out side zone is Rs.3.60
12. Average rate of call of C.D.M.A (prepaid) mobile service from Sunday to Saturday in out side zone is Rs.3.35
13. There are 43 VDC's one municipality 'Lekhnath' and one sub-metropolitcan city 'Pokhara are the service marketing area of N.T in Kaski district.
14. From G.S.M technology the consumers have taken many facilities such as tale facilities bearer facilities and supplementary facilities etc in Kaski district.
15. N.T has changed it's tariff rates and deposit amount of different types of G.S.M mobile to it's customers in occasionally.

16. A consumer who wants to buy a G.S.M mobile can easily take by the filling the application form and its procedure of Nepal Telecom office.
17. According to the study the researcher has found the no of 1629 lines of C. Phone post paid, 5400 lines of C. Phone Prepaid and 14,670 lines of Sky Prepaid are distributed up to Magh 20565 B.S at 43 VDC's Lekhanth municipality and Pokhara sub-metropolitan City in Kaski district.
18. According to the study. There are 19 B.T.S (Base Type Stations) in Kaski district up to Mangsir 2065 B.S.
19. Any Customer can use international call for America and Canada in only six rupees for per minute by using the easy call card.
20. According to the field survey the researcher found 54 percent of G.S.M subscribers support the present deposit system, 39 percent of G.S.M subscriber have negative attitudes i.e. the present deposit amount of G.S.M mobile is very high and only 7 percent subscriber expressed their opinion that the deposit amount of G.S.M Mobile phone is low. They further added that the deposit amount should be different according to the service provided by N.T such as Local, S.T.D and I.S.D in Kaski district.
21. According to the field survey the researcher found that only 32 percent of mobile subscriber have positive attitude for I.S.D tariff rate, 68 percent of subscribers have negative attitude for I.S.D Tariff rate in Kaski district.
22. According to the field survey. For S.T.D charge 44 percent of mobile subscriber have positive attitude and 54 percent of mobile subscribers have negative attitude and 4 percent have low charge.
23. For local call charge the researcher found that 40 percent mobile subscribers have positive attitude and 60 percent mobile subscribers have negative attitude. Due to the different income level, most of the people are disagreed for I.S.D local and S.T.D change in Kaski district.

24. According to field survey the researcher found that most of the cellular G.S.M mobile phone consumers have positive attitude for billing system of N.T in Kaski district. Some of the consumers (Who were not educated had the negative attitude for billing system of G.S.M mobile phone of N.T in Kaski district.
25. Most of Teachers, personnel's and business man are the high consumers of G.S.M mobile phone with comparing to the students and farmers.
26. According to the field survey it was found that 40 percent of Namaste Prepaid 25 percent of sky prepaid, 20 percent of Mero Mobile,10 percent of Namaste Postpaid and 5 percent of other G.S.M mobile phone users in Kaski district up to Magh 2065 B.S.

## CHAPTER - FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATION.

#### 5.1 Summary of the Study

Communication is an important infrastructure of Development of a country. Communication plays a very important role in business sector, industrial sector, tourism sector official sector etc. Doorsanchar service was initiated with the name of magneto Telephone Service in 1960 B.S in Nepal. N.T.C has been providing various telecommunication services that varies from very old technology to newly developed technologies.

N.T was established in 2060 B.S under the company Act 2052 B.S with the view of development the telecom as the field of free and competed serviceable sector the private sector also involving with in it. For the effective communication cellular G.S.M mobile phone has played a very important role in the modern business age.

G.S.M mobile phone is an electronic wireless radio equipment based on digital Cellular Technology. It should not be forgotten that customer is the king in any business and success and failure of any business organization entirely depends on consumers reaction to it's offerings. Understanding the market response as well as consumer behavior has become much more complex because it requires continuous investigation. Neither any scholars nor N.T conducted such research on mobile phone service by focusing it with consumer reaction.

In such a circumstance an attempt has been made in this research to study service marketing of cellular G.S.M mobile phone by connection consumer' response. The underlying objectives of the study are to find out the marketing approach of N.T for service marketing of G.S.M mobile, to know the promotional strategy of N.T about cellular G.S.M mobile phone, to know the

facilities used by mobile phone users and to collect their opinion with reference to tariff rate, billing system and deposit amount of G.S.M mobile phone in Kaski district.

In the course of achieving these objective the sample of 100 mobile phone users were taken by judgmental sampling from Kaski district. The samples includes 5 each from business man, teachers, students, farmers and personnel's. They were interviewed with the help of the structured questionnaires. Some Departmental Heads were also consulted for the clarification of data.

The collected data were completely analyzed and interpreted on objective - wise. Table, bar- diagram and other information were presented as per need. At last the major findings are given.

## **5.2 Conclusions:**

On the basis of major findings the following conclusions have been drawn.

1. N.T.C introduced mobile telephone service in Kathmandu valley from 2055 Chaitra but in other Regions from Aswin 2056 B.S
2. N.T (Nepal Telecom) was established in 2060 B.S under the company act 2052 B.S
3. Consumers get Knowledge about 'Mobile Phone' and its various services through different media of advertising basically various news paper, Magazine, F.M Radio and Television Commercial are used as a media if advertising.
4. There are 43 VDCs one municipality (Lekhnath) and sub- metropolician city (Pokhara) are the service marketing area of cellular G.S.M mobile phone in Kaski district.
5. Cellular G.S.M mobile phone has played vital role to its customers in field of communication in Kaski district.

6. From G.S.M Technology consumers have got many facilities such as Tele facilities, bearer facilitated and supplementary facilities etc in Kaski district.
7. The No of 1629 lines of C. Phone post paid, 5400 lines of C. Phone prepaid and 14,670 lines of Sky Prepaid are distributed up to Magh 2065 B.S at 43, VDCs, Lekhnath. Municipality and Pokhara-sub metropolitan city in Kaski district.
8. Majorities of mobile users are dissatisfied with international trunk charge of G.S.M mobile phone since this charge is going down ward because of e- mail and internet service.
9. There are 19 B.T.S (Base, Type station) in Kaski district up to Mangshir 2065 B.S
10. Most of the cellular G.S.M mobile phone consumer's have positive attitude for the billing system about the G.S.M mobile phone in Kaski district.
11. Most of the consumers are disagreed for I.S.D, Local and S.T.D call charge of G.S.M mobile phone in Kaski districts.
12. Most of the teachers, personnel's and businessmen are the high consumers of cellular G.S.M mobile phone in Kaski district with comparing to the student's and farmers.
13. 40 percent consumers use the Namaste Prepaid, 25 percent consumers use Sky Prepaid, 20 percent consumers use Mero Mobile 10 percent of consumer use Namaste Postpaid and 5 percent consumers Kaski district.
14. Some precautions:-
  - a. Some of the news paper and magazine are attracting the attention of mobile phone users not to use it in continuous manner. Since it may cause cancer or brain infection.
  - b. Mobile Phone are strictly restricted to use in hospital especially near operation theater and medical equipment due to radiation.
  - c. It should not be used inside the aircraft and near aircraft equipment, which may cause the aircraft controlling failure.

- d. Near gas station, explosive materials and highly in flammable petroleum products, the use of mobile phone will be hazardous.
- e. Talking in mobile telephone while driving vehicles may invite sudden accidents.

### **5.3 Recommendations:**

On the basis of major findings and its conclusion the following recommendations have been made.

- i. It will be better for N.T to distribute the mobile phone by constructing the sub- office at remote area in Kaski district.
- ii. It will be better for N.T to add the extra B.T.S (Base Type Station) at remote area for effective communication in Kaski district.
- iii. It will be better for N.T to discount for the low income level people and students for getting cellular G.S.M mobile phone in Kaski district.
- iv. It will be better for N.T to adjust the different types of calls charge i.e., I.S.D Local and S.T.D from G.S.M mobile service.
- v. It will be better to improve the quality of networking capacity of mobile service.
- vi. It will be better to remove roaming charge all over the country.

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## Appendix VI

### List of Some Communication Businessman in Pokhara (REGD)

S.N	Name	Firm's Name	Address	Phone
1	Bir Bahadur Gurung	World Communication	Prithvichowk	061-526409
2	Jayandra Raj Bhandari	New Super Communication	Rambazaar	061-432194
3	Binod Dhungana	Pragati Communication	Chipledhunga	061-526400
4	Bijaya Mani Bhandari	Link Net P.Ltd	Prithvichowk	061-551274
5	Naraya Prasad balra	Sagar Express and communication	Amarsinghchowk	061-52151 5
6	Suraj Bastakoti	Tuphan Communication	New Buspark	061-526027
7	Subedar Major Yam Bahadur Rana	Rana Sanchar Sewa	Naya gaun, Rambazaar	061- 433438
8	Dhananjaya Paudel	Sunrise Cyber and communication	Rastra bank chowk	061-539186
9	Asun Gurung	Dot com cyber and ommunication	Chipledhunga	061-526394
10	Bharat Bahadur Thapa	A to Z service	Buddha Bishal Bazaar	061-542051
11	Ram Chandra Sharma	Pratiksha Communication	Chipledhunga	061-520653
12	Devi Raj Gurung	Suman Communication	Mahendrapul	061-524480
13	Dal Bahadur Kunwar	Suman Trunkcall Sewa	Bager, Pokhara	061-523169
14	Khim Bahadur Shahi	Om Shahi Communication	Manipal, Phulbari	061-535932
15	Vishnu Prasad Baral	New Era Communication	Bajhapatan	061-524025
16	Ghendra Man Shrestha	Fishtail Communication	Hari chowk	061-535017
17	Bhoj Raj Banstola	Monsoon Communication	Siddharthachowk	061-537757
18	Ram Chandra Baral	Binayak Communication	Pardi, Birauta	061-460196
19	Sindu Poudel	Fishtail Communication	Mahendarpul	061-534825
20	Laxmi Prasad Poudel	Gramin Communication	Lamachaur, Pokhara	061-440201
21	Arjun Pokhrel	A.N.S Multy service	Pardi birauta	061-460025
22	Sushil Shrestha	Kantipur Communication	manipal , Pokhara	061-539338
23	Mani Ram baral	Annapurna Communication	Prithvichowk	061-551277
24	Naresh Ghale	Ghale Communication	Rambazar	061-430195
25	Bhim Bahadur Chand	Sadaphal Communication	Nayabazar	061-539103
26	Dan Prasad Thapa	Puspanjali Communication	Ramghat	061-521429
27	Lok Bahadur Gurung	Raj Communication service	Banjhapatan	061-538770
28	Kalpana Baral	Priti Communication	Chipledhunga	061-534412
29	Madhav Prasad Adhikari	Kiran Communication	Chipledhunga	061-531097
30	Pabitra Gurung	Lotus Communication	Ratnachok	061-538119
31	Rudra Prasad Adhikari	Central Communication	Bagar	061-535343
32	Bal Prasad Serchan	H.B Cyber and Communications	Bagar	061-534178
33	Dasharath Pandey	Om communication	Nalamukh	061-531727
34	Gupta Bahadur Thapa	U.V Cyber	Lamachaur	061-440001
35	Nar Bahadur Gurung	Solti Communication	Prithvichowk	061-538171
36	Dhan Bahadur Gurung	E. Net Cyber and Communication	Rambazar	061-431693
37	Mukhti Nath Adhikari	Gorakhkali Communication	Sabhagrihachowk	061-550740

38	Basudev Poudel	Dilux Communication	Sirjanachowk	061-535012
39	Rajesh Raj Bhandari	Aarati Communication	Mehandpul	061-528164
40	Ramji Ojha	Pragati Communication	Hospitalchowk	061-525160
41	Dinesh Bhandari	Mount Communication	Pardi Birauta	061- 460241
42	Khadka Bahadur Poudel	The Deurali Communication	Prithivchowk	061-540262
43	Ishwor Bhattari	New Aarati Communication	Prithivchowk	061-528079
44	Netra Prasad Gurung	Renew Communication	Nayabazar	061-540908
45	Rudra Bahadur K.C	Ed Mark Communication	Chephledhunga	061-525595
46	Kabita Sharma	Sharma Communication	Pardi Birauta	061-460259
47	Prabha Dhakal	Tuphan Communication	Mahendrapul	061-522576
48	Ramesh Pandit	Professional Communication	Mahendrapul	061-530732
49	Mitra Lal Baral	East West Communication	Sirjanachowk	061-538076
50	Hira Mani Dahal	Asian Communication	Shavagrihachowk	061-538081
51	Rajani Shretha	Pokhara Cyber Palace	Chipledhunga	061-534173
52	Anil Ghimire	Sarika Communication	Manipal Phulbari	061-538092
53	Vishnu Mani Bhandari	Link Net And Communication	Pritivichowk	061-551276
54	Vishnu Bahadur Karki	Global Link and Communication	Gharipatan	061-531713
56	Yub Raj Banstola	Clink online	Chipledhunga	061-550331
57	Bima Gurung	E.Net Cyber and Communication	Rambazar	061-432278
58	Badri Raj Gautum	Unique Communication	Bagar	061-536408
59	Ganesh Dhakal	Shubhakamana Communication	Sabhagrihachowk	061-550771
60	Yam Bahadur Karki	Namaste Communication and Cyber	Rastrabank Chowk	9846084322
61	Ramesh Ram Regmi	National Cyber	Bindabasini	061-541703
62	Pabitra Raj Tiwari	Buddha Communication	Buddhachowk	061-550793
63	Ram Kumari Gurung	R.K.D Cyber	Bagar	061-536119
54	Bikram K.C	Om Cyber and Communication	Bagar	061-525024
55	Suk Bahadur B.K	Shraban Communication	Nadipur	061-541432
56	Yub Raj Poudel	National Computer and Communication	Bindhabasini	061-537114
57	Karna Bahadur Pun	Nen. Jen Cyber and Communication	Bhairabtol	061-526488
58	Narayan Prasad Sigdel	Aarati Cyber and Stationary	Zero Kilometer	061-539015
59	Guddu Chhetri	Buspark Communication	Purano Buspark	061-536663
60	Nirmala Dhakal	World Wide Communication	Newroad	061-206971
61	Nar Bahadur Gurung	Zing Cyber	Rambazar	061-430207
62	Narayani Baral	Nice Cyber	Sirjanachowk	9846035223
63	Durga Bahadur Lama	Easy Explore Cyber	Rambazar	061-206945
64	Naryan Sigdel	Aarati Cyber and Stationary	Zero K.M	061-206912

Source : Communication Business Committee - Pokhara .