

TELECOMMUNICATION INDUSTRY AND BSNL

AN OVERVIEW

1. Introduction

Our nation India today has been recognized as the fast developing country in the world has great market potential for the industrial products and hence the Government has been attracting the MNCs by means of liberalization and FDI like schemes. The market experts strongly believe in the tremendous market scope in the Telecom Industry also. The national Telecom Policy 2012 aims to “ *Transform the country into an empowered and inclusive knowledge based society, using telecommunications as a platform*”

2. Tariff War and the Survival of the fittest

The new telecom policy 1999 has paved the way for the multiple telecom operators to enter into the business of Telecommunications in India and the competition is on and on which lead to the price war.

If we look at the history, the lobby of the private operators did not allow the Department of Telecom to start the mobile services and the cartelization of the private operators in the beginning was such that the mobile subscriber was to pay Rs.16 for originating the call. Surprisingly the person receiving the call was also charged Rs.8 if he receives the call on his mobile.

When BSNL entered into the business of mobile service, the call rates have been reduced to Rs.2 per call and incoming has become free. Further the telecom company Docomo brought a scheme of one paisa per second tariff again; it forced the industry to bottom line tariffs and all other operators were compelled to reduce their tariffs to remain in the market.

Today the telecom companies like Tata Teleservices, Reliance India (Anil Ambani) , Aircel, MTS, Vediocon etc., are in a state of either amalgamation or winding up. And some companies had to close their business due to their involvement in the 3G Spectrum Scam issue.

Presently Airtel, Vadafone, Idea are the main operators in the market along with the state run PSUs **namely BSNL and MTNL** . At this point in time presently Reliance Jio (Mukesh Ambani) is entering into telecom field on PAN India basis investing more than Rs. 1,00,000 crores with its main focus to tap the DATA market and is using the LTE environment equipments, the latest trend of telecom technology.

3. Market potential in the Telecom Industry: Voice Vs DATA

After the industry was open to Global Entry (New Telecom Policy 1999), the trend was voice calls and the other services were recognized as add on services called the Value Added Services including the DATA/Internet etc.,

In 2001, the tele-density in India was 3.5% and today the tele-density is more than 80% and the total mobile connections in the country have exceeded 1 Billion mark for the population of 1.3 Billion. Today there are about 330 million population uses the internet services.

It can be analyzed from the above details that, the growth in the Voice segment is reaching towards stagnation, while there still huge scope for the internet connectivity and DATA market. The industrial development particularly in the field of IT industry, Concept of Smart City in India, Bharath Net, DATA connection to every Gram Panchayat in the country, e Governance, M Governance, Make in India etc., are all opening a huge demand for the DATA market in the country.

Today the trend of Indian Telecom Market is changing from Voice to DATA and the technological inventions like the OTP, over the top players will ultimately bring a total halt to voice service once the technological developments like Whatsup, Voice over Internet and VoLTE- Voice over LTE (4G) will very successfully make them a byproduct of the DATA services and the end result is that like the PAGER service our earlier days and its natural death; our products like SMS and Voice will within a short period face the same fate, ending up in non-earning products. Today Whatup message is more popular, user friendly than SMS for the simple reason of its long messages, group messages, photo upload, PDF file upload, etc. SMS is the product of Telecom operator but Whatsup is only a OTP service and operator cannot charge on it whether it is “whatsup voice” call or the “whatsup message”. So whatsup will replace the SMS service once DATA is available to all customers in general. **In many developed countries today voice is free.**

In the previous decade, the retail market was dominated by the big players like MALLs, Big Bazar, etc., and it is now to a great extent attacked by the online retailers like FLIP CART, AMEZON, SNAP DEAL who have changed the definition of the retail market. For these online businesses, the telecom industry is the main vehicle in the form of DATA transporter.

Today, the industrial activities are very closely connected with the telecom industry like, remote medical treatments. Video conferencing, remote business monitoring, CCTV Surveillance, Traffic Signal control, Even Government works, Adhar Cards, Revenue Records, Core Banking, Credit Cards, ATMs, Reservations of Buses, Air, Railways, Cinemas and this list can run for pages if seen microscopically. For all these services the vehicle is the DATA/High Speed DATA transportation.

4. Technology Trends in Telecommunications

We have been in this industry from the era of Magneto Telephone ie. Electromagnetic technology of manual exchanges, Strowger Exchanges, Cross Bar Exchanges, Digital Exchanges etc all focused on voice alone. Now in digital era we have changed from dedicated switching to digital switching and ultimately into the era of packet switching for everything including voice (NGSN and MSC concepts).

Now the hardware based network solution has been changed to software based network solution. Through software you can remotely land and operate the system. Today the industry requirement is

machine to machine conversation. This expectation of the industry is now being answered by the 5G technology and US, Korea and Japan and is in an advanced stage of its implementation.

Optical Fibre and its technology is a great relief to the huge requirement of the industry for very high speed DATA transportation and with huge bandwidth. But the Optical Fibre Technology presently is a perfect solution for the fixed telecom services. ***World is eagerly looking for a Li Fi solution where the light energy be transmitted and received through air media like the electromagnetic waves.***

When it comes to the resolution of service on the move or mobile service, the constraint is the bandwidth, scarce availability of frequency spectrum. In India frequency held by the Indian Defence is also off loaded from them for the telecom commercial operation.

Today the evolution from 2G to 4G and the LTE, the advanced portion of 4G is able to create a remarkable improvement in this mobility services with high speed DATA transportation. The other alternative is Wi-Fi Hot Spots which normally operates on 2.4 GHz to 5GHz and is free from Govt Auction but the constraint very limited area of coverage. (It is on these frequencies the Blue tooth, Wi Fi modems work).

5. Expectation of the end user:

- a. The end user in future will expect **streaming services**.
- b. The trend is increase in the DATA usage, Decrease in the rates and the Scarcity of Spectrum.
- c. The smart user and the corporate world **quality of service**, indoor solutions, and sufficient bandwidth is an absolute and fundamental necessity. The network chocking should not be an impediment in his business.

So end user experience and his satisfaction matters very much for the telecom company for its survival and success in the market.

6. The telecom Networks popularly used in the world

The major technology being used in the world even today are the

- Copper loop (Land Line),
- Optical Fibre,
- Satellite,
- Cable TV NW,
- Private NW and
- Wireless (2G to 5G) and Wi Fi

But surprisingly in India most companies only focus on the wireless and Optical Networks. The only major operator using Copper loop (Land Line) is BSNL.

7. CAFEX of the telecom industry in India

The industry has so far paid huge spectrum charges for these services. The frequency bands in the 700 MHz, 800 MHz, 1800 MHz, 2100 MHz and ,2300 MHz are regulated and controlled by the Government and are licensed under auction.

An amount of Rs.4,50,000 Crores was so far paid to the Exchequer of the Government of India (highest in the world) by all the telecom operators so far as against their expenditure of Rs.4,00,000 Crores towards the establishment of the network. Cost of spectrum is more than equipments.

Interestingly this month the e-auction of spectrum is going on and the government is expecting a revenue of Rs.70,000 Crores. The latest e-bidding has already crossed Rs.60,000 crores and still the bidding rounds are going on while writing this article.

8. Financial Health of the Industry visa vis BSNL

Almost all private Telecom Companies are bearing huge liability of loans including the state run MTNL which is also a listed company.

The only exception is BSNL, the fully owned Government of India Company. Initially being in profit after corporatization, has suffered huge losses also before 2014-15. Only in 2014-15 and 2015-16 the company was able to ensure an operating profit of about 670 and 3200 crores. The losses after depreciation are reduced by more than 50 in the fiscal 2015-16 as compared to 2014-15. **BSNL is almost free from loan liability.** BSNL today managing its salary bill, OPEX and the CAFEX by and large with its own resources.

9. World Trend in Telecom Industry with Regard to Govt Telecom Companies

The British Telecom, Australian Telecom and Nepal Telecom run by the Government or as PSU are capable of competing with the private competitors comfortably, the regulations being very strict in these countries. It is needed to be compared with our Indian situation also.

10. Role of the Regulator, Government and impact on the competitors

TRAI and the DOT, TERM cell are regulating the telecom industry and in most circumstances, the positions taken were detrimental to the interest of the government run PSUs like BSNL and MTNL. The mobile license was delayed to BSNL abnormally, the cartelization of 3G spectrum roaming by private operators was not timely and effectively curbed, today reliance JIO was allowed to radiate at 40 Watts (46 Dbm) while other operators including BSNL were allowed to radiate at 20 Watts (43 Dbm). While all these days the telecom Companies were being the victims **CAF penalties**, Reliance JIO has been allowed the ADHAR BASED eKYC process for CAF. The political interference in the procurement of mobile equipment when the market was at its peak was a great setback for BSNL.

11. As BSNL where we stand today in the present trend of Telecom Industry:

It is only BSNL which is providing all sorts of services geographically to every nook and corner of the country and are backbone to defense of the country. BSNL is using all type of the network elements like the land line, Optical, Satellite and Wireless both GSM and CDMA.

BSNL is still the top operator in the land line, broadband and FTTH segments.

During the crisis of natural calamities like Cloud Burst in Leh Kashmir, Earth Quakes in Gujarat, the Floods in Orissa and AP and the recent floods in Chennai, the services of BSNL were more stable than all other operators and the restoration of the services was much faster than others. And in all these instances of crisis the State authorities have went on record to appreciate the services of BSNL and the general public of the country have realized the importance of the government company. More so in case of transparent billing also.

In the middle of stiff competition, unethical methods of competition by other telecom operators, failure of the regulator to allow level playing role, political interference in the affairs of the company; BSNL is able to run its services as a PSU for 16 long years and now showing the signs of improvement.

We are the leading operator in providing the leased circuits to Banking and other major institutions and the DATA revenue has been the significant source for BSNL at this juncture of falling demand of the conventional land line segment.

Our capability of DATA expansion for the upgradation of the services of the Indian top Banking Industry the **State Bank of India** for on time upgrading of their leased line circuits to their business expansions is well appreciated.

Though the Special Purpose Vehicle, the BBNL was established, the entire NOFN project is handled and being executed successfully by BSNL alone.

We have been moving fast in adopting the tariff plans like Night Free Calls, Sunday Free Calls, All India Roaming which reduced the rate of disconnection and made MNP positive.

12. The challenges before us

1. Are we be able to maintain the same strength and man power support in the coming days?
2. Are we be able to give the expected quality of service, with very aged and senior staff particularly in the outdoor area?
3. Are we be able to reduce the down time of our services in the event of interruptions to the expectations of the customers and the TRAI standards in the present scenario?
4. Are we be able to sustain the pressure of demands like High Speed Data transportation, Bandwidth requirements in the coming days with our existing OF NW, Copper cable in its present state of condition?

5. Do we have aggressive plans for the expansion of our OF cable network especially in major and Tier 2 cities at least to meet the growing demand of the FTTH customers and to counter the presence of Reliance JIO?
6. Are we be able to arrest the rampant damage of underground cable/fibres by the infra/road development works by various agencies and are we be really being monetarily being compensated for such damages of BSNL assets by such agencies?
7. Are our field officers are able to take on the spot decision and execute the preventive or restorative works in the present set up of our existing management where all powers are concentrated at top level management?
8. Is the management seriously thinking on these constraints as above and if so what are the short term and long term plans and policies for the future development of this organization?
9. Whether the present OF network and the Wi Fi project is sufficient in the future competitive DATA market?
- 10. Are the employees especially working in the frontline in BSNL are free from stress and pressure? And are the problems of these frontline workers and executives are addressed in a realistic way?**

If we address above issues in BSNL; we may go further victorious in bringing this company to its great glory.

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