

CHAPTER VI

Conclusion and Suggestions

There exist a positive correlation between teledensity and the GDP of a country. Teledensity increases with an increase in wealth or economic development. In other words, a country's telephone penetration/expansion is found to be proportional to the buying power of its population. This relationship is sometimes referred to as Jipp's Law.

With 'telecom for development' discourse gaining momentum, the famous Maitland report of the International Telecommunication Union (ITU) in 1984 condemned 'the extreme inequalities of telephone access between rich and poor nations' and drew attention to the fact that 'two-thirds of the world's population had no access to telephone services' (ITU 1984). The ITU report found underdeveloped telecommunications facility as the 'missing link' in the developing world and as the reason for its underdevelopment or slow development. As a remedy ITU suggested modernization and an urgent reform of inefficient public sector monopolies in countries and advocated transfer of technologies from advanced countries to developing nations. Besides, the report declared that telecom should no longer be seen as a luxury for elites, instead as an essential service which directly leads to economic growth. Other development agencies and financial institutions like the World Bank/IMF began to promote the liberalization of infrastructure development and the privatization and commercialization of services through intervention in national policy formulation and implementation.

Despite the intensive international pressures to open up the telecommunication sector, India, with its ideology of mixed economy and socialism decided to

indigenously develop the complex telecommunication equipments. India stood strong with nationalistic views and tried to expand the reach of telecommunication services through schemes that include Village Panchayath Telephones (VPTs) and Hallo Revolution of establishing STD/ISD booths. It could not adequately produce results in a country geographically as vast as India where population was growing exponentially. Further, it could not fairly resolve the just need for incoming communication as VPTs/STD booths were in the public sphere. For India, the nationalistic ideology of self-reliance contradicted with the international discourse on 'telecom for development' as it was premised on opening up of the telecommunication sector for competition. But, India initiated economic reforms in 1991 which demanded radical changes in telecommunication services.

Meanwhile, the GATT Uruguay Round, initiated in 1986, also strengthened the discourses on liberalisation. India, a country, often known for its leadership initiatives in the world, especially for the developing and the underdeveloped countries, had to toe to the developed world. The ITU report published in 1994 spelt out the necessity of other global governance agencies for successful reform initiatives in reforms in telecommunication sector across the world. It observed: "The International Telecommunication Union needs to work with other multi-lateral development agencies (who often have more influence at the top levels of government) to raise the level of awareness of the need for reform and investment in the telecommunication sector. The ITU can also encourage the development agencies themselves to become more involved in telecommunication sector reform, especially in those countries that, for reasons of risk or indebtedness, have little immediate possibility of attracting private sector investment or introducing competition". By 1990-91, India had fallen into a Balance of Payment (BoP)

crisis. To come out of this problem, the IMF and the World Bank offered loans with strings attached and compelled the country to accept the terms and conditions attached. The modus operandi of availing these loans was that the government set up committees to recommend reforms: their recommendations formed the basis for the introduction of competition in the telecommunication services sector in the country, initially opening Value Added Services only. In the Uruguay discussions India offered it as part of telecommunication reforms. For India VAS included: (a) Electronic and voice mail; b) Data, audio and video text messages; c) Videoconferencing; d) Radio Paging and e) Mobile Telephones.

This policy decision to introduce competition in telecommunication services had profound impact on the Indian Telecommunication services sector and as the country introduced mobile technology as a means of communication access, India positioned mobile services as a Value Added Service only, even though the same was considered as basic communication by the developed countries in WTO discussions. From the introductory stage of mobile services, it was licensed to private operators positioning mobile service as a complementary service adding value to the landline communication.

The declaration of NTP 1994 was based on the recommendations G.S.S Murthy and ICICI committees which stated that the government could not meet investment requirements of telecommunications and should allow private investment. With the declaration of NTP 1994, the Government of India decided to open up basic telephone services (land line) also to competition and invited bids for issuing licenses. In 1997, India reasserted that the private sector companies may supplement the efforts of the DoT in providing better communication facilities. Declaration of NTP was a revolutionary step in many ways. India had a common Industrial policy - The Industrial Policy Resolution (IPR) of 1948, followed by IPR of 1956 - where

telecommunication figured just as any other Industry in the Union List. Further, it was classified under 'A' category, for which private participation was not allowed. NTP 1994 broke both. (a) It was a policy declared specifically for telecommunication industry for the first time in the history of the country; and (b) it allowed private participation in the telecommunication sector as a policy decision of the Government. However, telecommunication continued to be an item under the Union List in the Seventh Schedule. The revised NTP in 1999 showed a firm orientation to liberalization in accordance with the changing requirements and in conformity with the international commitments. In this backdrop the study analysed market structure transitions of Indian telecommunication services sector post subscription to the GATS protocol with the following questions:

1. How far Indian subscription to GATS facilitated the liberalization of telecommunication services?
2. How far liberalization in the post GATS phase, has altered the monopolistic structure of Indian Telecommunication Services Market? and
3. How successful were the domestic policy makers in reducing the pace of inevitable transitions in India's domestic sector through various policy options?

The work sought answers through an interdisciplinary research, relying on the premises of Commerce, Economics, Law, and International Relations. The study sought to highlight the economic and legal environment in the country in relation to the telecommunication services. We will be answering research questions one by one.

Research Question 1: How far subscription to GATS by India, has facilitated the liberalization of telecommunication services in India?

Subscription to the Telecommunication protocol under the GATS of WTO by India anchored a shift in its attitude towards the telecommunication services. Telecom administration, policy formulation and implementation, choice of technology, spectrum ownership, power of licensing and provision of services were under the monopoly control of Government of India. It was so, in both the pre-independence and the post independence era and the post independence Government of India did not use the licensing power to bring in other entities to provide services. Even on attaining independence, telecommunication was used as a policy tool in the hands of the administrators for attaining political and social objectives. As discussed earlier, various pull factors and push factors compelled the Government to open up the sector to private investment. Telecommunication services were taken out from the Schedule A of the Industrial Policy 1956 by declaring NTP 1994 - a special policy for the sector. With the change of attitude it has become a societal tool for the people and infrastructure for the economy accelerating the process of globalization and integration of Indian economy with the world economy.

NTP 1994 was in consonance with the GATS discussions at Uruguay and was seen as a direct outcome of the agreements with International bodies like IMF in the wake of the financial crisis of 1991. NTP 1994 could not produce expected results in terms of teledensity, but it stood as the first policy document officially accepting private investment in telecommunication services and allowed freedom of choice of technology for access provision. After the GATS subscription which advocated 'progressive liberalization', the new telecom policy, 1999 - liberalized telecommunication services further. It expanded competition by making the market oligopolistic.

Accordingly, a package for migration from fixed license fee to one time entry fee and license fee based on revenue share regime was offered to all the existing licensees. Under the migration package, the license period for all the CMTS and FSP licensees was extended to 20 years from the date of issuance of the Licenses. Further, the duopoly regime in mobile segment was changed to bridled competition, bringing MTNL and BSNL to the mobile segment. Gradually a fourth private operator was also allowed. Thus, the standoff between the then existing two operators and the government over license fee and loss of operation was resolved through a trade off, bringing in enhanced competition in the Indian telecommunication services sector. As the PSUs - BSNL and MTNL started operation in the mobile segment, they became the third company in each circle and thus, the duopoly market structure with only two private operators, in the mobile segment came to an end. In 2001, seventeen new Cellular Licenses were issued and BTS licenses were granted for providing both fixed line and wireless basic telephone services on a continual basis. The WTO-GATS principle of 'progressive liberalization' was strengthening its roots in the Indian telecommunication services scenario.

By the end of 2003, India came to accept that access provision would be treated as technology neutral, ie. If telecommunication access is provided through landline (FSP - wired with no mobility) or WLL (Wireless fixed with limited mobility) or Cellular Mobile or a combination of these technologies, it is basic service for providing communication access. The UASL (Unified Access Service License) guidelines issued, dispensed with the requirement of separate licenses for each mode of service, if an entity provides communication access utilizing any of these technologies. It marked the era of shift from separate license for each mode of service to a single license regime. Thus, Indian telecommunication services sector became technology neutral, as envisioned by GATS.

In telecommunication, there was a time when telegraph and land phone was everything. Telegraph required dedicated lines from one centre to another, for transmission of the message. If dedicated lines were not established, it could be routed through certain main centres, where dedicated lines existed. In telephones also, initially the local exchange could assist only the local calls within the exchange. Gradually exchanges were connected and the externality was improved. Now, the externality is so greatly improved that anyone in the world connected to a telecommunication network can communicate with another anywhere in the world, i.e single network all over the world. It is pointed out that liberalization in telecommunication has moved to globalization of telecommunication, eventually leading to globalization of other trade sectors. Hitherto, the greatest barrier in realizing the dream of connectivity across the globe is the inevitable national boundaries and nationalistic ideals. Telecommunication Protocol under the GATS eliminated these nationalistic barriers and progressively liberalized communication. In India, NLD was opened in the year 2000 only and ILD in the year 2002. Opening up of these sectors subsequent to NTP 1999 specifically point towards the efforts of the government to achieve progressive liberalization in the Indian telecommunication services sector, integrating the national telecom services network with global network.

Reference Paper under the GATS documentation contains competitive principles and descriptive details of various anti - competitive practices in the international telecommunication services. Even though, India did observe all what the reference paper speaks of, being a member, she has committed to many areas of concern and liberalization was adhered to in general. It is under the international commitments that the Government of India arm of telecom service provisioning - DOT - was corporatized in 2000. With corporatization, all telecom service entities came to the same footing, and

competition was becoming fairer. Before, the historical event of corporatization, the presence of TRAI as a regulator was also at stake as one of the operators was the Government itself. TRAI had to fight legally against its creator - the DOT - to establish its authority. Thus, each step that India took towards progressive liberalization pointed to its commitment to the international forum. The incremental introduction of added features of competition was proof of the power of international commitments. The drastic changes like changes in market structure from Duopoly to Oligopoly and thereafter to Competition, UASL (i.e technology neutrality), opening up of NLD and ILD, corporatisation of telecom services arm of Government, establishment of TRAI as a separate regulator, gradually permitting hundred percent FDI in telecommunication sector proved the committed progress of enhanced liberalization, in the post GATS subscription to Telecommunication Protocol in 1997.

Research Question 2: How far liberalization in the post GATS phase, has altered the monopolistic structure of Indian Telecommunication Services Market?

Liberalization in the post GATS phase, has altered the monopolistic structure of Indian Telecommunication Services Market. From the beginning of its invention in the 1850s and commercial implementation, telecommunication facilities, in most countries, were provided under Governmental control. Thus, telecommunication services market in most countries assumed the nature of a natural monopoly (Government being the only service provider) because of its legal insulation and the patronage of the ruling class for various reasons, from commercial interference.

Nevertheless, a provision to grant license to operate telecommunication networks to other companies, existed under section 4 of The Indian

Telegraph Act, 1885. Even as the quasi-federal Independent India came into being, centralized control over telecommunication in its totality was constitutionally provided and realistically effected through the Industrial Policy Resolutions 1948 and 1956. Further, the Telegraph Act 1885 continued as such. But the power to grant licenses to other companies to operate telecommunication facility was never invoked by the Government of India until the initiation of telecommunication liberalization in the post NEP 1991 scenario. That the telegraph legislations from the beginning contained both provisions – provision for Government ownership and control and also the provision for licensing other companies – prove the recognition of the importance of the communication services sector and its commercial nature in providing communication services. Further, the annual report of 1931 stated that the department was commonly held as ‘commercial’ and that it is guided by commercial considerations in the regulation of its business.

Most often, India had followed Britain in its telecom policy matters. Britain separated its Postal and Telecommunication departments in 1980. Thereafter, by enacting the British Telecommunications Act, 1981, the Telecommunication entity was made a publicly owned corporation in England. India also followed the same, separating post and telecom in 1985. Even though corporatization of telecommunication was also initiated in 1986, it fell short on an experimental basis to MTNL in Delhi and Mumbai geographically and to VSNL for International Calls, product wise.

Formation of MTNL and VSNL in 1986 initiated changes in the telecommunication services sector in India. But, it did not bring about any substantial change in the market structure. It was so, because even with the presence of MTNL and VSNL along with DoT for the other services/other parts of India, it was monopoly market structure in India. MTNL was a geographical monopoly with Delhi and Mumbai. No telecom operator

competed there with similar services. VSNL was a product monopoly as no telecom operator in India competed with VSNL in carrying international calls. DoT was also a monopoly for other parts in India, geographically and product wise. Hence, the market structure was not altered in the pre NTP 1994 regime. But it is already seen that post NEP 1991 but before NTP 1994, the Government allowed the private sector, selectively in mobile telecommunication services in the country positioning mobile communication as a value addition to the existing land line communication service. But, it was not materialized as the matter was taken to the Court by the failed bidders and was awaiting adjudication. As NTP 1994 came as a specific policy declaration of the Government the Indian telecommunication services market became a duopoly market in mobile telecommunication. The Supreme Court adjudication also endorsed the NTP 1994, leaving policy making space to the Executive.

With subscription to the Telecommunication Protocol and the commitments under Reference Paper, India moved fast and introduced several liberal measures. Most of the measures introduced had the direct or indirect effect of bringing changes in the market structure. The market structure broadened to duopoly and thereafter to oligopoly and competition encompassing all segments of telecommunication services market. It was made possible through licensing of private companies in the respective segments. But, a discriminatory policy favouring the private companies was followed in granting licenses, in the guise of attaining equity to the telecommunication services market. The Public sector companies MTNL and BSNL (before formation of BSNL, the Government arm DoT) were prevented from entering into the mobile telecommunication services market, so as to provide a breathing space to the new private mobile segment companies and also to create a so called level- playing- field for the private companies. This

discrimination was done away with the new policy of NTP 1999 that was declared after subscription to GATS to enhance competition. It was the beginning of corporatization of DoT so as to take away government control from service provisioning. It was to bring in corporate control and commercial wisdom in the so far government controlled sector. Thus, duopoly mobile segment became an oligopoly. Further, as per the definition of 'service' by GATS, a service provided under governmental authority would not come under the purview of GATS. Therefore, exit by the government arm from service provisioning was imperative for the GATS provisions and also to ensure independence of TRAI, the regulator.

NTP 1999 was a revival package for the telecom service companies financially tired of cut-throat competition by bringing in revenue sharing regime in place of fixed licence fee regime. But, a set off provision enabled the government to move to oligopoly market and competition market from duopoly. The hitherto debarred PSUs were allowed to offer mobile services. The telecom penetration/teledensity soared higher with the spread of wireless technology. What could not be achieved for more than four decades became a reality within half a decade post- NTP 1999, as the market structure changed from monopoly to competition, in the post GATS subscription to telecommunication protocol.

The Indian government's monopoly on telecommunications industry failed to develop and provide cheap, reliable, and state-of-the-art communications systems inclusively for the population of the country. New technological developments soon rendered this monopoly system largely obsolete. It became imperative that India adopt a pro-competitive regulatory environment for the spread of telecommunication. Consequently, India had to commit to the principles set out in the Reference Paper and GATS of WTO. The monopoly tumbled and moved to duopoly and thereafter to

oligopoly and Oligopoly finally giving way to competition, as a result of these international commitments.

As the market structure broadened and competition soared higher more companies came to service provisioning. Competitive regime was getting entrenched where demand and supply factors operated bringing tariff reduction. Competitive tariff packages which had no bearing on the cost structure were declared frequently by the competing firms with the sole objective of broadening the customer base as in telecom time of usage is money. Telecom companies tried to expand the customer base both by getting into the green field of acquiring new customers and also by weaning away existing customers of other operators. Further in mobile communication there is no concept of dedicated line other than an activated sim card. Time sharing and increased time of usage would bring revenue to the company. Even though the year 2008 licenses were cancelled and the number of operators came down to the level of Oligopoly, the tariff competition continues in the Indian telecommunication market as a result of the structural changes. At the time of subscription to GATS, basic telecommunication services market in India followed monopoly market structure, but it was broadened to embrace greater participation of market participants increasing competition. Such competition would have naturally moved to a consolidation process. But, as already seen and explained in detail, judicial intervention in 2012 suddenly brought it back to oligopoly.

Research Question 3: How successful the domestic policy makers were in reducing the pace of inevitable transitions?

The domestic policy makers were successful in reducing the pace of inevitable transitions. Immediately after the independence of the country, the model of growth opted by the Government of India was that of a mixed

economy with socialist bend. Hence, the Government promoted large-scale state-sponsored industrialization. Such a model of centralized planning and allocation of resources for development was envisioned as the only solution to the centuries of poverty and backwardness to which the country was subjected to through warring local kingdoms and subsequent colonial domination. The public sector was destined to play a sentinel role in the development of Indian economy. It was true of the telecommunication services sector also. All functions including capital accumulation, resource allocation, investment, geographical spread of investment, choice of technology, pricing of telecom service, demand (demand for telecom service was discouraged positioning it as avoidable luxury and later by including mobile communication under one by six scheme of Income Tax Act, 1961) and supply were controlled by the government machinery.

It is already seen that the DoT and its staff enjoyed the benefits of absolute power in the telecommunication services segment in India due to the fact that from policy formulation to provisioning services were decided by them without any competition. Further, the telecommunication manufacturing segment was also under the Government control until the formation of C-DoT in 1984. DoT was a monopoly and monopsony at the same time in India. Corporatisation of the service provisioning arm was decided by the Government in principle in 1986 but could not go ahead further to MTNL and VSNL. It was because of the heightened objection from within the administrative system, strong trade union pressure and political influence. It could be completed only with the formation of BSNL in 2000 (a decade after the initiation of NEP 1991), as GATS provisions mandated that governmental authority shall not provide a service that fall under the GATS. As the government took a U-turn from the socialist thoughts and centrally planned the development path and as there was no alternative, it became imperative to

revisit the past abandoned projects of corporatisation for bailing out the crashed economy. It was accelerated by GATS.

In 1992 the Government allowed private sector entry in mobile services considering it as VAS unlike other countries taking it as basic services. But the first mobile communication took place only in 1995 and its commercial launch was further delayed till 1997 due lack of a specific policy for the telecommunication services sector. The move to liberalization was obstructed several times in several ways, but WTO commitments compelled the country to stay in course without any deviation, even though declarations featured the forward movements.

As already seen, GATS stipulated that services provided under governmental authority could not come under WTO-GATS. Hence, the Government of India readied itself with the willingness to corporatize DoT and disarm itself from the burden of providing services. It could not be achieved as the bureaucrats/technocrats feared loss of entity. Finally, the Government breaking all customs and procedures appointed Mr. Vinod Vaish IAS, purely an administrator to be the Member (Services), the top most post in the Telecom Commission. He was entrusted with the task of corporatization of DoT, thereby converting the 143 year old department to a corporate body. Corporatisation of DoT to BSNL was delayed by a decade even after NEP 1991.

An independent regulator needed to be established under the Reference Paper to Telecommunication Protocol of GATS. In haste, it was brought in through an Ordinance and finally the Act was passed for the establishment of TRAI as a statutory body in 1997. TRAI had several functions including regulation of competition in the telecommunication services sector. A turf war erupted between the technocratic bureaucracy in DoT and TRAI. It was highly pitched because, until the formation of BSNL in the year 2000, DoT itself was a

service provider. The bureaucratic position that TRAI is only a body formed by the government and DoT is Government itself took both the entities to Court. Finally, the adjudication powers of TRAI were clipped and TDSAT was formed in 2000 by amending TRAI Act. Such disputes, in fact delayed speedy liberalization process and proved the lack of clarity of our policy framers.

TRAI was not an independent body as desired by the Supreme Court or as required under the WTO. Under section 25 of the Act, the Government has the power to issue binding directions on TRAI. Further, under section 35 of the TRAI Act, the Central Government reserves power to make rules on various subjects and such rules are binding on TRAI. Besides, TRAI is funded by the Central Government. TRAI was given a role of an advisor but the Government was empowered to overlook the advice. TRAI was conveniently ignored by the government while taking major regulatory or licensing decisions. TRAI order in *Aircel Digilink v. Union of India* that greater access to the fixed line networks should be allowed to the private operators added fuel to fire. Further, TRAI prevented DoT from encashing bank guarantee given by the private operators on their failure to pay the fixed licence fee prior to the regime change through NTP 1999. Such pro-competitive decisions of TRAI created problems for the entity. The DoT's deep rooted bureaucratic control and uneasiness in forming an independent new statutory body created problems in the initial stage of TRAI formation despite clear demands even in the Loksabha. Finally, Government yielded by passing TRAI Act in 1997 and formed the statutory body. Later, by TRAI Amendment Act 2000, its powers were clipped by creation of TDSAT.

Government policy of making maximum revenue from telecommunication services at various levels is in fact at fault line. Government was trying to use telecommunication as a solution to plug its huge budget deficit. In 1999, as the

industry itself was sinking, causing irreparable damage to the image of progressive liberalization, the government offered a trade off whereby the license fee regime was shifted to revenue sharing (instead of a fixed huge upfront sum) and the existing private operators agreed to increase the number of operators in the market. Thus, during 1995- 1999, telecom penetration was nominal and competition did not bring out its fruits as the industry and the companies were ailing severely due to the flawed priorities of the government.

However, the Government took it up as a mission to clear all waiting lists and to provide land phone on demand by scaling up the investment. The level of investment in land line was so huge that in Kerala alone during the period between 1990-91 to 2000-2001 number of exchanges increased from 241 to 988 whereby the capacity increase was from 4,12,315 lines to 26,90,584 lines. But as the wireless world increasingly conquered the fancy of the aged as well as the young, abandoning land line connection became the order of the day. Just because a part of developed world had achieved near total teledensity in their country with land line, India which had decided to move to the world of wireless invested further heavily in the landline segment was instead of concentrating the scarce resources in the cost effective wireless segment is a lack of vision that paralysed the faster telecommunication development of the country. These investments are turning idle. This confusion of technology acceptance caused a costly delay in mobile roll out and penetration, over and above wasting scarce resources on a technology nearing the end of its life cycle.

Even though liberalization efforts on telecommunication was already in the offing, along with the Uruguay discussions, it was definitely shaped, concretized, accelerated and made a reality where no turning back was possible under the given circumstances improving the quality (network quality- clarity of voice and high speed data transfer and lower call drops) and

quantity (radical improvement in teledensity and greater geographical coverage) of telecommunication access, with the GATS accession of the telecommunication network of our country. Progressive liberalization is the goal of GATS. Here, it implies that liberalization efforts are unending and scope for further liberalization remains in future. Further, once a commitment is given to the international community through the schedule of commitments, the Government could not roll back as it might lead to claim for compensation from a trading partner who might have acted on the strength of faith in the international agreement.

From the time of initiation of telecom reforms in the country, several pull factors decelerated the process of liberalization. It reduced the pace of opening up the sector to competition. In spite of all these, the strength of international commitments ensured that the country did not deviate from continuing its liberalization efforts.

Recommendations

Utilization of USOF for universalizing tele-access in a country like India, is to be ensured. Gray areas in the implementation of USOF provisions and lack of political will have caused greatly to rural urban divide. Providing real connectivity to rural and unreachable territories should be ensured under USOF. India, much ahead of many countries in space science, may utilize more of satellite technology for ensuring telecom access to difficult areas like Laksha Dweep, Andaman and Nicobar Islands, North Eastern territories, dense forests and deserts. It is especially required for a nation like India where divisive forces are strong and the geographical territory to be administered is vast and diverse. The trend of utilizing satellite technology for the better transmission of communication signals is already found. Bharti Airtel, the biggest telecom brand in India has purchased a minority stake in

OneWeb, a consortium comprising Qualcomm, CoCo-Cola, Virgin group and Airbus among others, which aims to provide affordable broadband to all parts of the earth through satellites.

In the initial stages of competition in the telecommunication services sector, each company started building up its own infrastructure. It was seemingly unavoidable during those times as there was no clear vision of future and a policy on sharing of infrastructure was lacking. But circumstances compelled the companies and the government to think on sharing of infrastructure. Every operator company is not required to erect towers and lay independent OFC throughout the territory. The available towers can be shared by other companies and thus reduce expenses on the one side and earn an income for the other side. Thus, operational expenditure can be brought down and thereby competitive tariff can be offered to the public. A comprehensive policy on sharing of infrastructure should be framed for promoting and avoiding the national waste of duplicating infrastructure. In telecom industry, sharing of infrastructure takes place even now, but a comprehensive policy involving all stake holders – both private sector and public sector- would benefit the country greatly.

It is seen that tele- access is great in ensuring social inclusion of marginalized groups and also helps in ensuring balanced regional development. It increases communication facility and improves the knowledge level of the masses. In this backdrop, the corporate sector in India may be taken into confidence. If any corporate body assist the Government/ NGOs/any identified marginalized group in ensuring tele-access or make it cheaper for them, it should be considered that the corporate body has fulfilled its Corporate Social Responsibility (CSR) under the Companies Act 2013. It is important especially because CSR has become mandatory in India. It will help in identifying and filling the gaps in the digital India. Another option may be that

the government may set up a special fund, to which any one may contribute including the corporate sector as part of fulfilment of their CSR obligation. This fund may be utilized for subsidizing handsets for the poor and in offering free/subsidized internet facility, for promoting and popularizing data usage. Telecommunication in the new scenario cannot be restricted to voice transmission. Data transfer is going to occupy a major share of tele-business. Just as USOF was created and utilized for spreading access provision to rural areas, this fund may be used to spread subscriber connectivity/improve teledensity by bringing the marginalized groups to the advantages of communication. It would popularize use of tele-data connections and further improve teledensity as the poor - those cannot afford a handset/data connectivity - may come to the telecommunication scenario.

More countries are permitting voice over internet protocol (VOIP) from telephone to telephone and the Internet. VOIP calls make the entire world as one local area and the calls – whether international/national/local- become dreamingly inexpensive. It is not freely granted under the Indian laws, seemingly for protecting the voice revenues of the existing telecom companies. Future of telecommunication is not merely in ensuring voice communication access; it goes to data traffic and Value Added Services. India is already late in bringing in a broadband policy and even now the speed limits specified are below par the comparable international standards. Further promotion of VASs would help the growth of telecommunication services sector.

As India is a signatory to the Protocol on Telecommunication, the members of the treaty expects the country to commit fully to the reference paper of the Basic Telecommunications, negotiations on ensuring compulsory interconnection, independence of regulator, dispute resolution machinery, transparency, full commitment on FDI, in addition to partial acceptance of

several other demands of the reference paper and competitive safeguards. As a ground reality, India has allowed 100 per cent FDI in telecommunication and a trouble free interconnection regime. But, India has not committed itself so to the world body. It shows that India is extremely cautious in committing itself to the international body in spite of the fact that the same is already allowed here. It may be good to gradually offer the ground realities at least to the member countries for obtaining increased benefits from them under the Request – Offer Approach of the GATS protocol on telecommunication.

The nature of telecommunication services Industry, which is technology oriented and capital intensive does not promote it to be a competitive market, but rather an oligopolistic market. Under such a market condition, there would take place, mergers and acquisitions, which would help smaller firms to exit the market in case of infeasibility. But, at the same time, if a smaller firm wants to continue in the market, it can do so by identifying a viable niche segment of operation. MTS India of SSTL concentrates on data traffic in Kerala for example. Further, backward integration/forward integration of firms, if taking place, it would promote the telecommunication manufacturing sector as well as the service sector to offer end to end solutions for the subscribers and bundling of services from own sources. Merger of licenses would enhance spectrum availability which in turn and would improve quality of speech and reduce call drops. As MNP is already implemented, it would not adversely affect customer connectivity/ preferences. It was the feature of MNP that enabled the Indian telecommunication subscribers for smooth transition on cancellation of 122 licenses by the Supreme Court in 2012. As the MNP feature is enhanced recently to cover any circle and any operator, it would enhance competition in the market. Even though MNP feature has enhanced competition in the telecommunication services sector, it has shown its ugly head also. Aggressive marketing by operators before MNP led to customer

addition and teledensity improved greatly. Further companies vied with each other to enhance teleaccess from place to place. With MNP feature, competition was reduced to weaning away existing customers of the other operators. It does not improve teledensity as effective market expansion does not take place in tele-India when existing customers switch from one operator to another. Still the feature of MNP has added value to the telecommunication sector as it respects the choice of customers. In this backdrop TRAI should take the lead to ensure that MNP does not take away the spirit of real expansion of telemarket from the marketing strategy focus of the companies.

Non-availability of adequate spectrum bandwidth is an issue for operators in the country badly affecting quality of service. Spectrum, considered as a national asset is held by the Government of India. Licence to use spectrum is auctioned to the operators for a period of twenty years. For small operators, part of spectrum taken by them remains idle, whereas others struggle with available spectrum to provide quality service. If the government permits spectrum trading by the operators, it would help firms with surplus spectrum to generate income and others to provide better service. In USA, spectrum for broadcast is managed liberally owing to the public interest component involved. But in India, it is managed and controlled by the Government for enhancing its revenue and to bring down budget deficit. The Government of India has cleared the proposal for sharing of spectrum. But, it is still subject to several restrictions/conditions. Spectrum leasing is not yet allowed and a policy in this regard is awaiting now. This is another instance for the delay in framing liberal policies costing heavily on the growth telecommunication services in India. Restrictions on holding spectrum have adversely affected M&A in the telecom sector in India. Further, aggressive pricing of spectrum has made telecom operation unviable for several operators. It may be good if the government adopts a stable pricing strategy like weighted average pricing

for spectrum and entrusts the task of pricing to experts in the field. Rules on spectrum (being the monopoly resource held by the government) will have a direct impact on the telecom market structure in the country.

With the 2007 recommendation of TRAI on eliminating the cap on the number of access service providers in a service area' and its acceptance by the Government, 122 licenses were issued in 2008. However, pursuant to the judgment of the Supreme Court, in *Dr. Subramanian Swami Vs. Union of India & others* in 2012, these licenses were quashed. Thus, from 2008 to 2012, it was competitive regime that was in place in India, whereas prior to that it was bridled competition or managed competition among a few operators which was in fact oligopoly. With the landmark judgment of cancellation of 122 licenses, India swung back to oligopolistic market in telecommunication services. Telecommunication services industry is capital intensive and technology oriented. Further, communication technology undergoes changes faster with the integration of computer technology with optical fibre network for transmission of data. As technology undergoes improvements/changes (existing technology becomes obsolete faster) new investment is required for maintaining the expected quality of services. Impairment of assets is greater in the industry due to several reasons. Due to these factors cost of maintenance in the industry is huge. Therefore, the industry is not one fit for competitive regime as competition would entail reduction in call charges for the customers while providing world class service of superior quality. We have been victims of monopoly service. Hence, both the extremes of the continuum does not augur well for the industry. As economists point out, a duopoly is always in the danger of swinging to monopoly due to take over by the stronger whereas an oligopoly is considered safer in these industrial circumstances. India has safely landed in the oligopoly sphere and there would also be the dangers of takeover, merger & acquisitions as in any industry. Yet, it would remain a

better market structure provided the regulator is watchful of the possibility of cartelisation among the players. TRAI has to work in association with Competition Commission of India (CCI). Government of India have to initiate legislative steps to eliminate the possibility of conflict between the two entities in managing competition as already done for the banking sector.

In India, the Government has not come out with a feasible exit policy for an investor who over the 20 year period of license builds up huge infrastructure and develops a customer base. On expiry of 20 year license period in November 2014, the Loop telecommunications in Mumbai decided for a slump sale (of three million customers and 2500 plus towers and equipments for a price of about 700 crores), including its customer base and tower installations at a fixed price to Airtel, which was prevented by DoT, saying slump sale was not allowed under telecom policy. At the same time no feasible option is given in the existing telecom policy. Further, TRAI objected sale of customer base to another company and that it was mandatory that customers be intimated to take their option of operator through MNP. All these happened at the closure of license period of 20 years and the existing telecom policy failed to rescue the situation. During the period of this uncertainty competing operators made life very difficult for the exiting company by barring all incoming calls and incoming SMSs for pressurising Loop telecommunications to settle their dues first. It impacted trouble free interconnection in the country. Finally, the largest and the first operator in the Mumbai circle had an exit which no investor would desire for. Hence, a well planned and investor friendly exit policy should be framed without any delay for a successful telecommunication services industry and its market structure. Because the success of any market structure depends on its entry and exit options. The company had expected a 'natural extension' of license for another ten years and fought for it in TDSAT and was let down. Then, Bharthi Airtel came

forward for a lump sum payment if it would be a slump sale including the 3 million customer base, which was not allowed by TRAI and DoT. Thereafter, no operator came forward for the tower assets, liabilities and employees of Loop telecommunications. Loop had an ignoble exit due to the lack of a timely exit policy in the industry. As the market structure of the industry is administratively guided and determined, it should be adequately supported by policies framed in time.

Government of India introduced a proposed Communication Convergence Bill, in the Parliament in the year 2001, with the objective of establishing a new “converged” regulatory framework to promote and develop the communications sector (including broadcasting, telecommunications and “multimedia”) in the modern environment of increasing convergence of technologies, services and service providers. The Bill proposes to repeal and replace existing sectoral laws, including:

- (a) the *Indian Telegraph Act, 1885*;
- (a) the *Indian Wireless Telegraphy Act, 1933*;
- (b) the *Cable Television Networks Regulation Act, 1995*;
- (c) the *Telecom Regulatory Authority of India Act, 1997*.

The major objectives of the Convergence Bill are:

- (d) Facilitating development of a national communications infrastructure, in order to provide a wide choice of services to consumers.
- (e) Establishing a regulatory framework that addresses the convergence of technologies, and defines the powers and roles of a single regulatory and licensing authority for broadcasting, telecommunications and multimedia.

(f) Establishing a basis for codes and standards for broadcasting content.

The new regulatory body proposed is known as the Communications Commission of India (CCI). CCI replacing TRAI would become the sole regulator of the broadcasting, telecommunications and multimedia sectors. The Convergence Bill is pending in the Parliament for a number of years. In the world of technology convergence is already taken place. It should be managed and promoted under a comprehensive law and the Government, even though aware of all these has not cleared the law. It should be taken forward fast as telecommunication sector per se does not grow farther than improving teleaccess. Instead, in the modern technology environment, telecommunication should be enabling tool for improving the standards of lives. Such a comprehensive law would enable the country to face the current technology realities and promote integrated M&A events involving all these fields.