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A Comparative Study of Pakistani and Indian Telecom Business Regime- Can a Verdict Be Reached?

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Abstract
This study compares the telecom regulatory environments of Pakistan and India, analyzing international and regional laws and regulations. It evaluates the regulators' performance based on parameters like market entry, access to scarce resources, interconnection, and quality of service. The findings suggest that Pakistan's regulatory regime outperforms India's, attributed to factors like transparent market entry, privatization, and effective regulation implementation.

Purpose of Study
The boost in the telecom sector is mainly due to the prevailing laws and regulations regime. The subsequent policies from this regime are enforced with a vision to welcome innovation in the sector, creation of positive competition and facilitation for new entrants/entrepreneurs into the sector, thus fostering sustainable growth of telecom sector worldwide. This report aims at discussing the international and regional laws and regulations in telecom sector. Pakistan's telecom regulations regime is analyzed in comparison to India's telecom regime. The function of the regulator is studied under four parameters, out of seven broad parameters which were kept as the basis of Telecom Regulatory Environment survey conducted by LIRNEasia.

Introduction
Telecommunication sector has shown a lot of development in the past decade. It can be gloried with the title of "The Toughest Survivor" in the race of other sectors which contribute towards the economic development of the country. Most of the time, this incredulous development in the sense of technology and innovation in the sector, is put to the credit of the regulatory bodies who are responsible of making and enforcing laws and regulations which provide guidelines to the telecom service providers for playing in the grounds of telecommunications. There are certain parameters which have been kept as the standards for the evaluation of the regulators like Market entry and others. These parameters are recommended by the research consortium of Sri Lanka, named as LIRNEasia. LIRNEasia is a regional, non-profit ICT policy and regulation capacity

building organization, funded by International Development Research Center of Canada. Its basic purpose is to motivate the regulator to perform even better by conducting surveys on their performance. Recently, the survey was conducted in Asia, on five countries namely: Pakistan, India, Sri Lanka, Philippines and Indonesia.
In section 2, International trends of laws and regulations in telecommunication sector are discussed.
Section 3 discusses the regional perspective of the regulations.
Section 4 provides with an insight on the prevailing laws regime in Pakistan.
In section 5 gives an account of India's regulatory regime.
In section 6, a comparative analysis of Pakistan and Indian telecommunication's regulations is provided, taking into account the seven key parameters of performance.

International Trends in Telecom Regulations

The major shift in the telecommunication market over the past decade is from monopoly to competition. With this transformation, there is also a tremendous shift in regulations to facilitate competitive environment in international market. With the introduction of competition, granting jurisdiction over telecommunications to trade institutions to achieve political constituencies is remarkable. [1].
ICT is now considered to be mandatory technology for economic prosperity and social well-being. Three main functions of ICT environment are;

a. Physical Interconnection, logical Interoperation of networks.
b. Terms and conditions for cross border services
c. Terms and conditions for cross border content of information exchange.

The effects of ICT on national policies and international interests range from Intra-state shift in power from communication to trade industry ministries to the spread of national liberalization and privatization. Privatization and liberalization in the regime caused a ripple that lead to shift of treaties to contracts. US opposition on certain factors like accounting rates etc compelled the revision of telecommunication regulations, internationally. As a result, a more competitive, flexible market driven development in ICT is produced.
International regime mainly focus on solving common problems of the nations by adopting certain principles and decision making procedures designed to make factors like distribution of power and variety of other factors, undisputed.
As international regime provides with a multilateral framework, which is also advancement in the international market, global coordination is much easier under umbrella rules and standards. When talking of the rules in international market, the most important of all is International Telecommunication Union (ITU) which was established in 1932.
ITU is responsible for setting rules and standards and help the developing countries in establishing and upgrading their telecommunication equipment and networks. Some of the trends that are generally followed in international telecom regime are;

a. Liberal investments.
b. Technological convergence.
c. Regulatory harmonization
d. Competitive market operations.

ITU is assigned the task to bring government and industry on a single platform for negotiations on standardization, coordination and development of international telecommunications. ITU adopts international regulation and treaties for managing frequency spectrum, interconnection of ICT and telecom systems and its development in developing countries.

International Trade in Services is discussed in the organizational context of World Trade Organization (WTO). Guiding principles for the discussion are;

a. General obligations and principles especially those of most favored nation, domestic regulation and competition.
b. Specific commitment like market access and national treatment etc.
c. Sectoral annexes on user empowerment.

WTO occasionally presents reference papers with certain key issues addressed and put as international benchmarks for trade in services like;

a. competitive safeguards
b. Interconnection
c. Universal service
d. Public availability of licensing criteria
e. Allocation and use of scarce resources
f. Independent regulators.

As a consequence of the efforts in the direction of reform by WTO in the regime, it became the most important forum in ICT globally. This resulted in progressive re-evaluation of multitude of domestic and international policies and rules according to anti-trade restriction baseline.

Regional Perspective of Telecom Regulations

The proliferation of new, affordable and widely used communication tools from the international market is reaching Asia Pacific now. The region leaders, business men and public are getting more awareness about reliable and accessible ICT's infrastructure and services and its contribution in economic and social development. Some important factors for wide maintainability of affordable services to citizens and businessmen are;

a. Weakening rationale for monopolies.
b. Liberalization of telecom markets.
c. Change in legal/regulatory framework.
d. Increasing consumer awareness and expectations. [2].

The South Asian Telecommunications Regulators Council (SATRC) is responsible for the discussion and coordination of all issues relating regulations in telecommunication sector which are of common interest of South Asian countries. These issues mainly constitute the radio frequency co-ordination, standards, regulatory trends and issues, strategies for telecommunication development and telecommunications related internal affairs. This council functions under the auspices of the Asia Pacific Telecommunity.

ASEAN Telecommunication Regulator's Council was established in 1995, with a purpose of providing a forum for the discussion of regulatory issues and policies in domestic and regional sector. General aims include roaming of services in ASEAN, facilitating intra-ASEAN trade in telecommunication equipment and services, enhancing interconnectivity and interoperability of ASEAN networks and strengthening the region's

profile in the international community. Specific objectives include frequency allocation harmonization and the development of human resource expertise.

Telecom Regulatory Regime in Pakistan

To measure the status of Pakistan in the telecommunication sector, a snippet on change in the perception of general public about the ways of communication, is just enough. The considerable growth in economy in the past decade is credited in the account of telecommunication sector's incredible expansion in Pakistan.

One reason for this visible boost in economy can be the geographical location of Pakistan. Other reasons could be a rapidly expanding transportation and communication infrastructure and conducive environment for business growth. This, in turn, makes it an attractive destination for foreign as well as local investors.

Concerted investment policy and planning have been consistent with the liberalization, deregulation, privatization and facilitation. With constant GDP growth, telecommunication sector has been the major recipient of FDI in last two years. [3].

Pakistan Regulatory Authority (PTA) have been given the task to attract and promote investments, encourage competition, protect consumer interests and provision of high quality but cost effective telecommunication services. A light touch regulatory regime ensured the level playing field for small operators as well as large operators by pushing them for QoS, arbitration and transparency in terms of service provisioning. As a result, a controversy free, transparent and rapid de-regulation of sector has taken place. The guiding principles of deregulation are;

a. being supportive for new entrants
b. letting market forces drive the sector

Not only regulation, but also facilitation for the induction and up-gradation of technology is also the duty of PTA. It has also set up a transparent process for frequency allocation and licensing. This has caused a drastic change in Pakistan's telecommunication, with the increase of cellular users from 12 million to over 60 million. Teledensity has increased form 2.2% to 45%. This is followed by the Broadband services which have almost quenched the thirst of service providers, (cellular and others) in terms of Bandwidth. [4].

Pakistan's telephone and telegraph department has functioned as a government body since 1947. After the establishment of PTCL in 1996, it transformed into a public limited company with a license for 25 years of service provisioning. It is the incumbent operator and enjoyed its undiluted monopoly for many years. But inefficiencies in basic telecommunication sector pressed the government to move from monopolistic market to a more liberalized one. This has diluted the dominance of PTCL.

Considerable licensing is done for cellular, LL, WLL, LDI and ISP sector. Mobilink enjoys the SMP with 40% market share. In WLL and Wired, PTCL still rules.

Now government plans to open frequencies for WiMAX for 3G cellular systems, asking foreign investors "Welcome Aboard".

An Overview of India's Regulatory Regime

India is a developing country and like other developing countries, major cause of liberalization is to attract FDI. The results of this liberalization are the increase in Teledensity from 2 % (1999) to 26.22 % (2008). Restructuring the incumbent started in 1999 when this Department transformed into two entities, like.

a. The Telecommunications Department (DoT) which is converted to BSNL in 2000 which was given the task of licensing and policy making.
b. Department of Telecommunication services which is responsible for enforcement of policies and operations.(TRAI)

Efficient competition, the provision of private service & regulations and policies which are market oriented have created a leveled field of play for new entrants, thus ensuring a range of prices and quality options which monopoly could not even consider, providing.
Telecommunication sector in India is mainly driven by domestic investment with only 4 billion USD FDI, about 8.13% of the total FDI that flows to India. Tariffs are reduced up to 35 % in 2003 – 2008. [3].
Telecom Regulatory authority of India (TRAI) reduced the tariffs by ensuring competition by introducing Unified Access Licensing regime and lowering the ADC.
The recent report of OECD depicts a picture with India lying at the bottom of 34 countries in broad band penetration rank. The broad band subscriber's growth was very high initially but it declined eventually. Targets set for broad band policy are apparently impossible to be achieved. Moreover, it's facing critical issues like broadband expansion in India. India is significantly ahead in tariff regulations, derived from the survey conducted by LIRNEasia. On the fixed sector TRE assessments, India came at second place. [5].

Comparative Analysis of Pakistan's and India's Regulatory Regime

The two in focus regulatory regimes are compared on the four most important factors, out of seven factors which are kept as the parameters for survey by the TRE assessment of regulators by LIRNEasia.

Market entry:

In India, DoT(Division/Department of Telecommunication) along with the Ministry of Communication became responsible for issuing licenses to its own competitors. Six providers signed the license agreement for the provision of basic service. In cellular services 42 licenses were issued. Due to the lack of management of interconnection agreements, services were slow to take off. Licensing process was made a money machine with restricting market entry as supplement. TRAI expressed dissatisfaction with the entry procedure and recommended that the Government should make sure that there is enough spectrum for new entrants, thus limiting the market entry if not putting cap on the number of operators. Market entry in Broadband sector can be visualized by the progress of incumbents BSNL/ MTNL which lag far behind the said targets of the Broadband policy (TRAI 2008) with the copper loop usage, even when they have 60 % of the market share. Provision of Broadband through wireless technology is looking for the release of 3G spectrum by the govt.
On the other hand, Pakistan is leading India in this regime. The regime of licensing has made it open for investors to offer the services in the area of their choices. One reason of Pakistan being fastest growing market can be the FDI that is attracted due to mergers and acquisition. There was a considerable market entry in fixed sector and WLL as soon as the sector was open for competition in 2004. 38 companies were awarded the licenses for FLL, 17 for WLL and 14 for LDI services. The irony is that out of 38 FLL licenses, only 10 are operational. The reason to this is high cost of interconnection, transit exchanges

and inadequate transmission media with the taxes being high on the import of the communication equipment. LDI is the most profitable of all as all the licenses are operational.

Access to Scarce Resources

In India, the regulatory setup for allocation of scarce resources such as spectrum has until now ignored the factor of efficient utilization of spectrum, allocation procedure and pricing. Spectrum allocation is associated with the number of users. The spectrum of 3G is taken to be stand alone and not an extension of 2G spectrum. In broadband, RoW is a major issue. TRAI recommended that the RoW processes must be crystal clear and available to the public and the cost should be non-discriminatory, un-burdensome and reasonable. In contrast to this situation, Pakistan's access for scarce resources shows a very consistent behavior even when the mobile sector shows an insignificant decline in the last two years. The common to both fixed line and mobile sector is the scarce resource of radio frequency spectrum. Frequency Allocation Board (FAB) is responsible for the allocation of frequency which acts under recommendations of ITU and its organs. NFMMS are responsible for watching spectrum in different operators. Right of Way (RoW) is required to roll out infrastructure required for provision of telecom services. PTA grants the licenses for this purpose and the licensee may lease, rent or sell links to telecom operators. Numbering is another scarce resource and PTA has changed the numbering scheme from 7 digits to 8 digits from 2008 to accommodate more users. Moreover, Mobile number portability (MNP) has been launched in 2007 to avoid the wastage of this scarce resource. As for broadband, the scarce resources are the fiber optic networks. The incumbent has its own fiber optic back bone thus fulfilling the need of network for broadband services. This scenario clearly points out the success of Pakistan's regulatory regime over India's.

Interconnection

In India's regulatory regime, there is certitude of prerogative in cases of interconnectedness and a leveled field has been provided. In 2002, TRAI issued relevant Regulation. This regulation compelled service providers with significant market power (SMP) to publish a Reference Interconnection Offer (RIO), elaborating on numerous conditions containing a basis for interconnection usage, charges for origin, transit and termination. These will provide guidelines for new entrants. All the RIOs is approved by the regulator. Due to ADC plan for Universal Service provisioning, the interconnection prices are fairly high which is overcome by compensating it in interconnection charges directly paid to the incumbent enterprise for providing below-cost service in rural areas.

In Pakistan, the perception of interconnection has fairly improved in the last 2 years. Pakistan Telecommunication Rules mandates each operator to negotiate an interconnection agreement with another operator who request for such interconnection. Operators with SMP are required to prepare RIO wit detailed account of services and tariff for the interconnection they would provide to the licensed operators. But the perception of interconnection in broadband sector is not up to the mark as that prevailing in the fixed line and mobile regime. The reason to this is the anti-competitive clauses from DSL Interconnect Agreement between PTCL and ISPs. A case has been put in front

of PTA for the solution to the problem, but no advancement has been performed over the issue, yet.

Quality of Service

In India, TRAI has placed QoS to be the ultimate indicator of performance of the networks and the degree to which networks abide by the stipulated norms. Consumer's perspective of QoS is least network congestion. TRAI has recommended the congestion at any Point of Interconnection (PoI) to be 0.5% when regulations for QoS for voice and for broadband came out in 2007. QoS for mobile operators, as reported by TRAI, is that they should be meeting the call drop benchmarks. Broadband in this regime is lagging far behind when talking of service activation time.

In Pakistan, the QoS in mobile sector has fared better than fixed and broadband sectors. Surveys are conducted by the PTA in all parts of the country to check the QoS of all service providers over efficient, trouble free and affordable services parameters. The survey in the mobile sector showed that operators have maintained acceptable quality of service, even after high subscription. Same with the broadband and fixed line regimes, the QoS is getting better. PTA had devised certain automated tools to check for QoS of different operators. The results of these tools showed significant improvement in QoS in different regimes from 2006 to 2008.

Conclusion

Pakistan has a better regulatory environment than India. One reason is that the effects of the de-regulation policy are coming forth. Ease of market entry, unbundled licensing regime, implementation of Mobile number Portability, and reduction of anti-competitive practices has driven the success of the sector in the past decade. Pakistan has overtook India in basic telecommunication services, reasons being the transparent and broad market entry, privatization and credible and effective implementation of regulations by a regulator.

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