INDUSTRY ANALYSIS REPORT

2007

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INDUSTRY ANALYSIS REPORT

INTRODUCTION

Since the inception of Pakistan, basic telecom services were being provided by a monopolist, previously called as Telephone and Telegraph department (T&T). The department was being run by the government and played multiple roles as regulator, policy maker, operator and service provider in the country. The T& T department was later converted into a corporation. Although the corporation was earning huge profits from the services, it was re-investing the same profits into the sector for the provision of more telecom service but the investment was not enough. Further, with the technological advancement, more and more telecom services were becoming available but there was not enough money available with the corporation to install new telecom systems for the provision of modern services. Resultantly, a digital divide prevailed in Pakistan keeping it behind its neighbors and other comparable countries in terms of telecom access.

Cellular mobile services in Pakistan commenced in 90s when two cellular mobile telephone licenses were awarded to Paktel and Pak Com (Instaphone) for provision of cellular mobile telephony in Pakistan. Currently there are six cellular players in the market. There has been a tremendous growth in Cellular market. By the end of 2007 cellular mobile services were available in 7011 cities/towns and villages.

LDI segment witnessed blooming health during 2007 wherein telecom consumers enjoyed cheap international dialing. Deregulation process of the telecommunication sector of AJK and NAs that was finalized in 2006-07 resulted in the award of licenses to five existing cellular operators. In 2007, PTA established ITU Asia Pacific Center of Excellence (CoE) PTA node for Policy and Regulations and conducted two training workshops for ITU members. In 2007 total teledensity in Pakistan has reached 52% which stands well above other regional economies, of which the fixed line teledensity is 2.9% & cellular 48.4%.

GROWTH OF TELECOM SECTOR IN PAKISTAN

Although tremendous growth has taken place in the Pakistan telecom sector but most of it can be attributed to the cellular growth. Fixed line is still awaiting a take off. Similarly Value Added Services have grown but are still a drop in the bucket. Now that the competition has been introduced in the telecom sector some very positive impact have been observed on the growth of the sector in a short span of time which is expected to continue to grow for at least next five years if the daring investors influx continue as in the last 3 years. A brief account of the growth in telecom sector is given below.

Mobile Sector

Driven by lowest tariffs, maximum coverage, and relatively better quality the Pakistan mobile market maintained rapid growth during 2007. The newly deregulated mobile market is now working on sustaining the mobile boom that hit Pakistan 2 years back and on the brink of adding Value Added Services to increase ARPU along with customer satisfactions.

Steady growth saw addition of more than two million mobile subscribers every month throughout the last year. Network coverage of almost 90% of the total population of Pakistan has made mobile industry even more attractive for foreign investment. Pakistan has emerged as one of the fastest growing mobile markets among the developing nations. This year the sector grew by 80% whereas average growth rate in last 4 years has been more than 100%. Today total subscribers have reached 76.9 million (Dec 2007) whereas it was 34.5million in 2006 and 12.7million in 2005. Figure-1 shows the subscribers growth of different Cellular Mobile Operators.

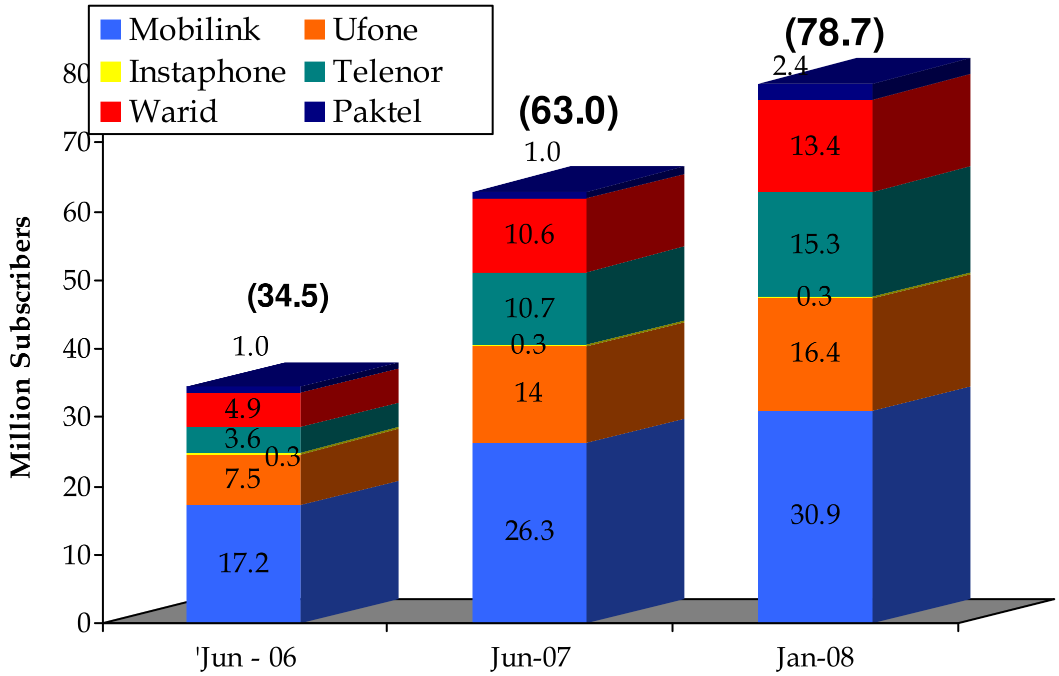
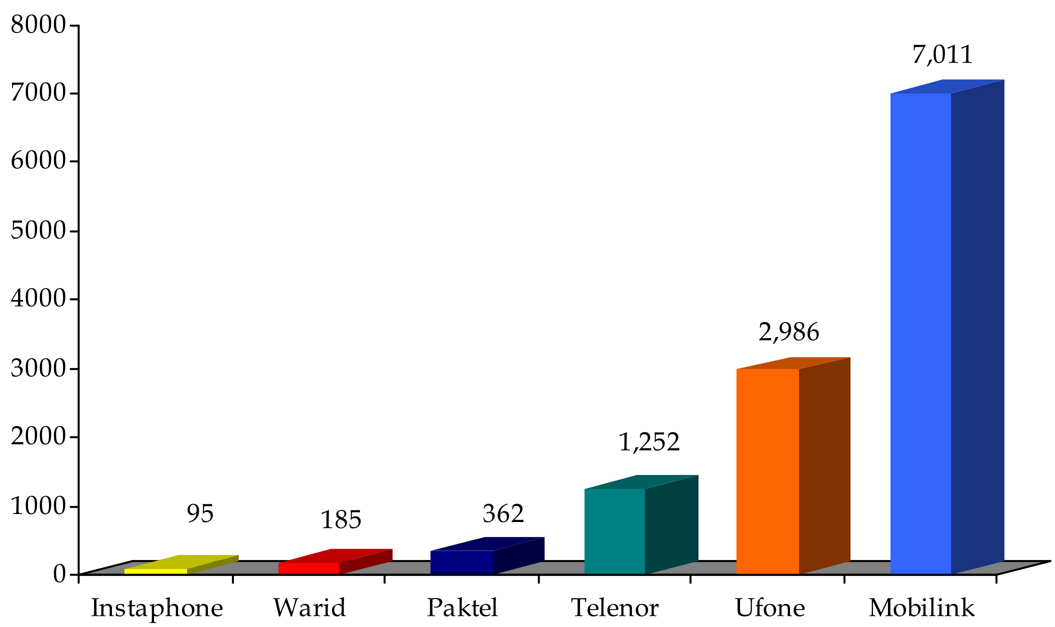


Figure-1 Cellular Subscribers Growth

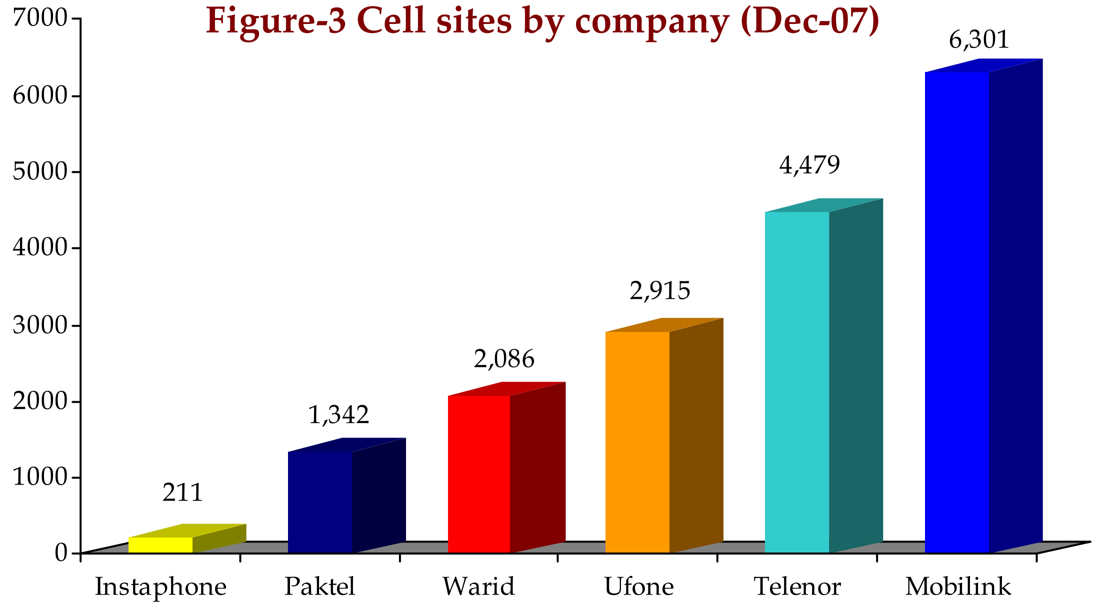
In Pakistan's competitive and heated mobile market operator's survival lies in getting into new areas exploring new Value Added products, and providing better quality of services. This is only possible by rolling out networks and be the first to reach untapped population of the country. Out of 376 tehsils across Pakistan, almost 77 % are covered with mobile networks, bringing the figure to 290.

Figure-2 Cities/Towns/Villages covered by the company



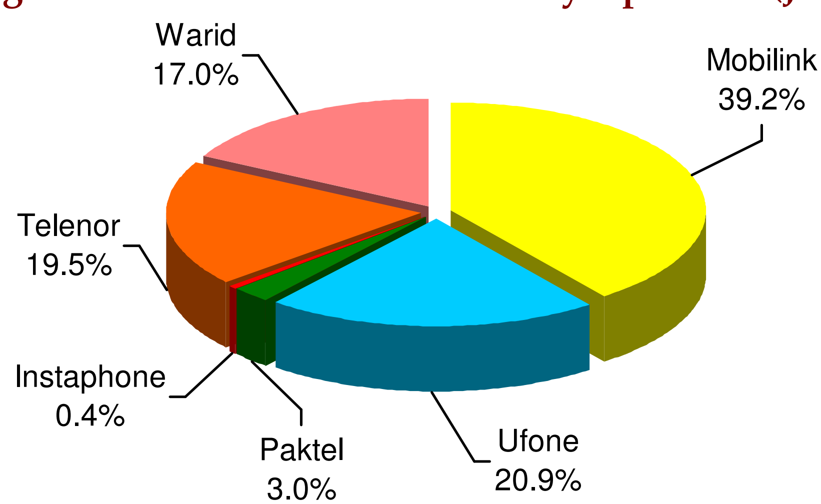
In 2004 there were less than 2000 cell sites erected by all mobile operators all together for provision of mobile services. Today total cell sites of all mobile operators are more than 17,500. Figure-3 depicts the number of cell sites of Cellular Mobile Operators.

Figure-3 Cell sites by company (Dec-07)



In 2007 the share of each company in mobile market exhibited a change, except for Ufone whose subscriber share remained more or less the same.Mobilink kept on loosing its share for another year in favour of Telenor and Warid despite its secure subscriber base, whereas Paktel and Instaphone share in the market also dropped as both companies are struggling with transitional phase. Figure-4 depicts the Cellular mobile operators share in the telecommunication market.

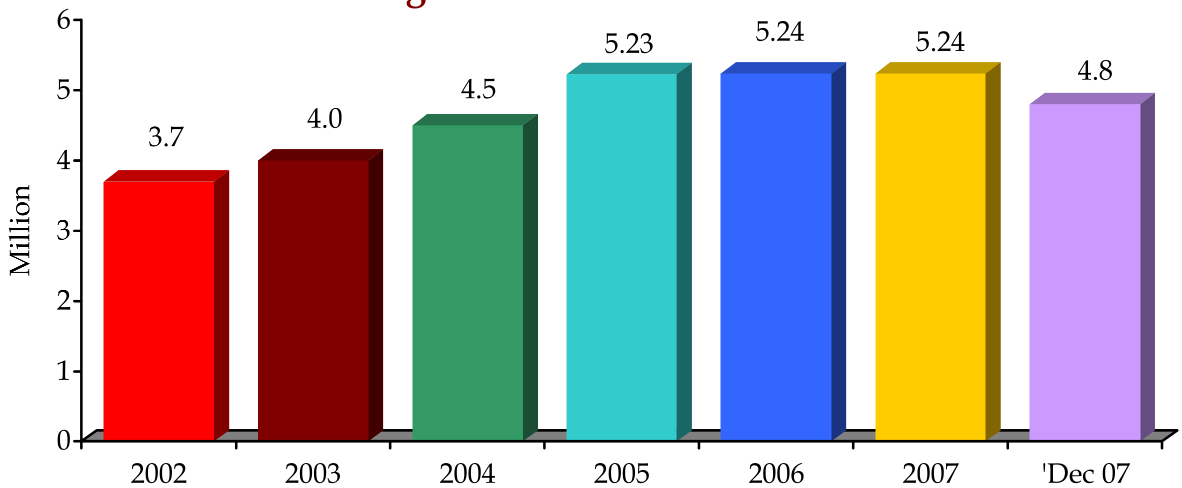
Figure-4 Share in Mobile Market by Operators (Jan-08)



Fixed Line Sector

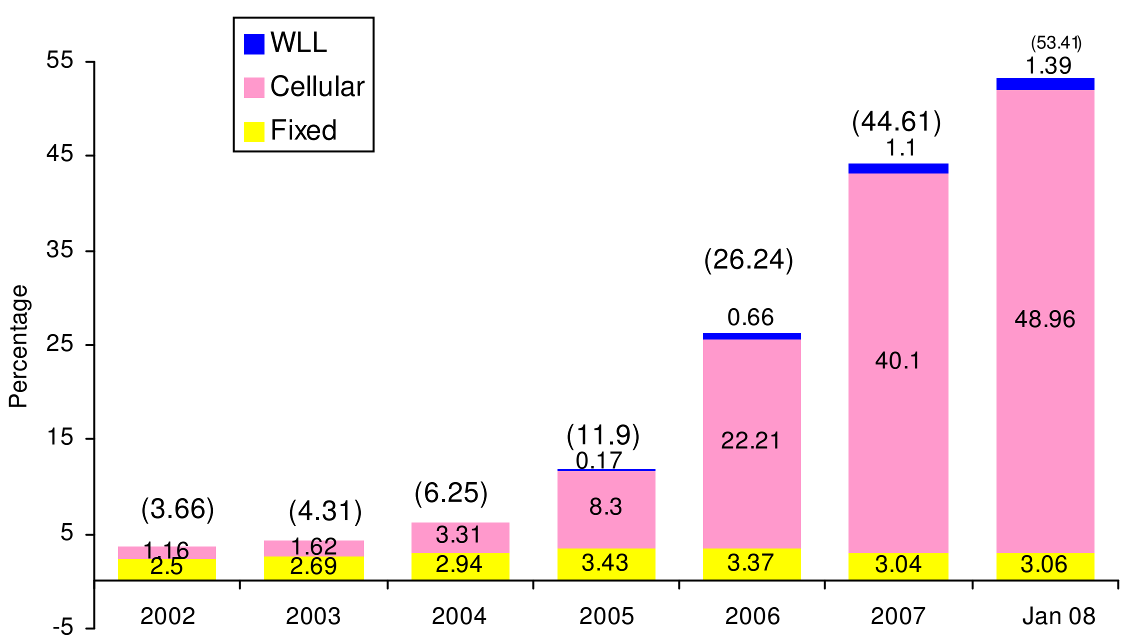
The growth pattern followed by fixed line subscribers has been discouraging and disappointing over the last couple of years. There was increasing trend in fixed line connection from 2001 to 2006 but dropped in 2007 bringing the ALIS to a mere 4.8 million across Pakistan.Figure-5 depicts the fixed line Subscribers position.

Figure-5 Fixed line subscribers



During 2007 fixed teledensity dropped from 3.04% to 2.99%. WLL and Cellular teledensity is increasing which can be seen in Fig-6

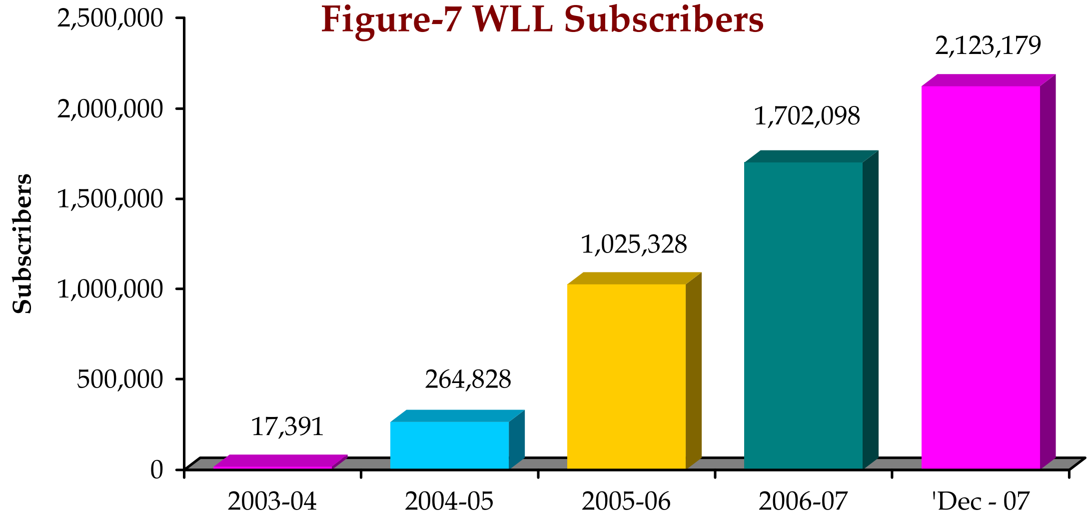
Figure-6 Teledensity of WLL/Cellular/Fixed Sector



Wireless Local Loop (WLL) Sector

Wireless Local Loop services were introduced in Pakistan after deregulation of local loop sector in 2004.17 WLL licenses were issued out of which PTCL, World call, Telecard, Great Bear, Burraq, Mytel and Wateen are operational. WLL customer base has shone rapid growth since 2003.As of the writing there are 2.1 million subscribers of WLL services which can be seen in Fig-7.

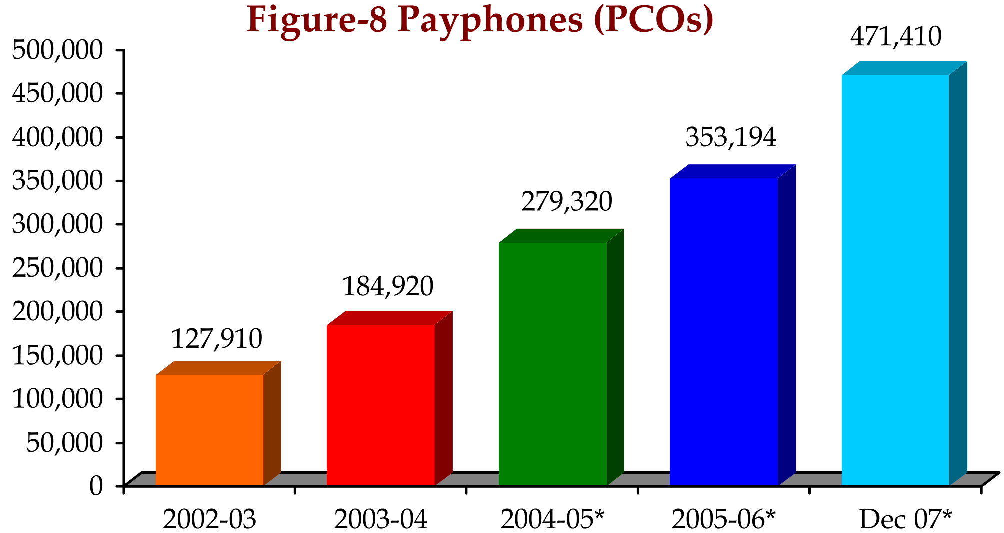
Figure-7 WLL Subscribers



Payphone Services

Card payphone services in Pakistan were deregulated in 1990s. Telecard is the first to introduce this service in Pakistan. Growth of fixed line PCOs remained impressive till 2004-05 where it was going at an outstanding pace. PTA allowed mobile companies to establish their PCOs. After 2004-05 growth trend of fixed line PCO declined but wireless PCO services flourished in Pakistan.

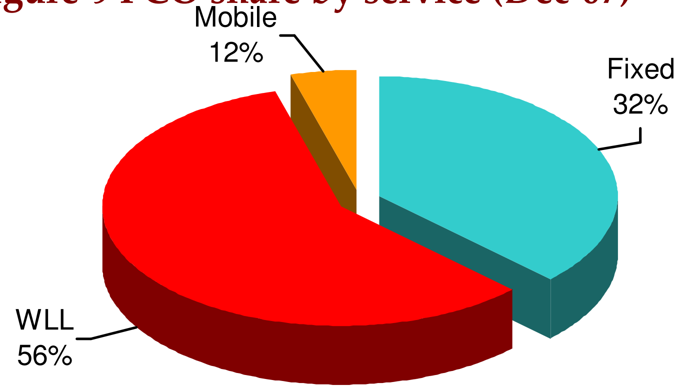
Figure-8 Payphones (PCOs)



*Include Payphones of FLL, WLL and Mobile companies

PCO service is functional in all four provinces and majority of them are wireless. Overall growth of the PCOs remained 10% in the year 2006-07 which was 26% in the year 2005-06. PTA allowed mobile companies to establish their PCOs. Mobilink was the first to start its PCO service and has a claim of 57,936 PCOs.

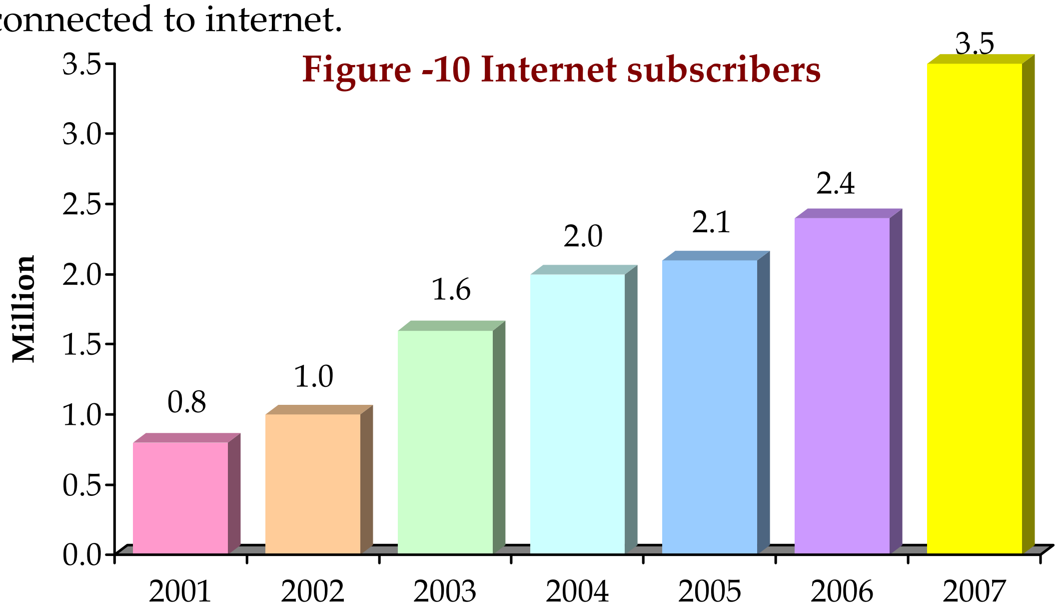
Figure-9 PCO share by service (Dec-07)



Internet Services

Internet service is becoming an integral part of life in Pakistan particularly in urban areas where large portion of the businesses are using it for different purposes. Most of the domestic Air Lines including PIA and Air Blue have started e-ticketing through internet to provide better and efficient services to its customers. According to estimates of ISPAK (Association of Pakistani ISPs), currently there are about 3.5 million internet subscribers all across in Pakistan whereas total users crossed 17 million mark. Currently around 3,002 cities are connected to internet.

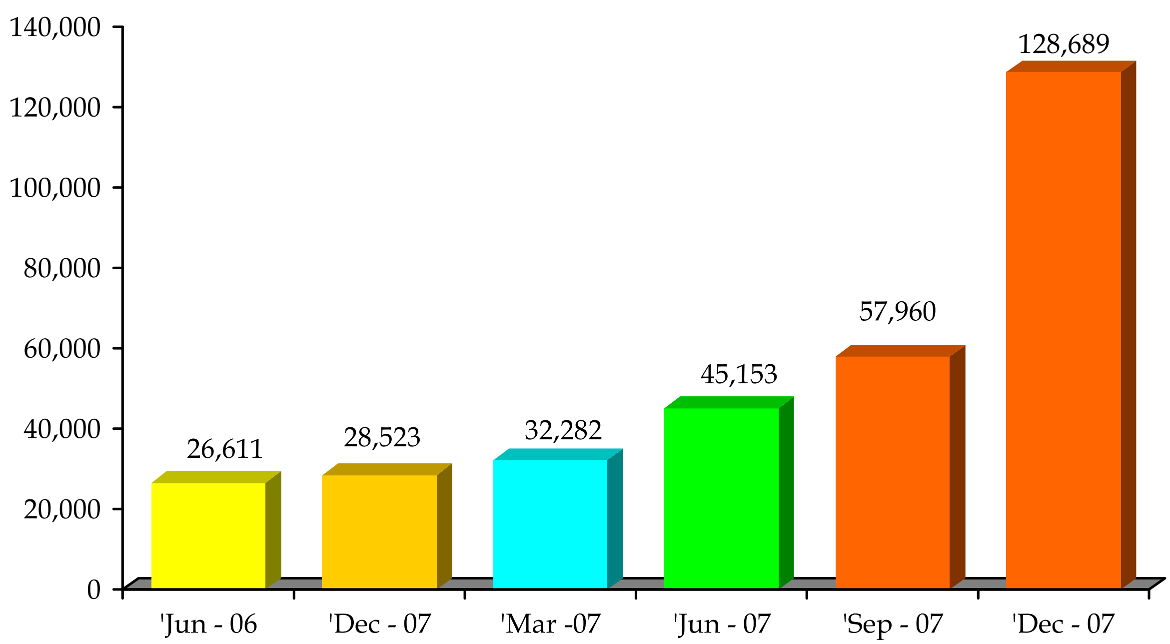
Figure -10 Internet subscribers



Pakistan's Broadband market has been slow despite the fact that services have been available since almost five years. Broadband services can be offered with the help of various technologies such as DSL, Cable Modem, Fiber to the Home (FTTH), Wimax (worldwide interoperability for microwave access). Cost of service is the major reason behind this slow growth. PTA is striving hard to bring down the cost of providing Broadband service in order to facilitate low income groups. The new E1 bandwidth rates for Karachi areUS$1000 (reduction of 37%). PTCL has also dropped copper loop charges for DSL service providers from Rs. 217 to Rs. 150 per month. It is believed that this reduction will help in proliferation of the broadband market.

A major development for broadband market is the introduction of broadband services by the incumbent (PTCL) itself. PTCL has started offering its DSL services since June 2007 in major cities for home users with free installation services. It is expected that steps taken by PTA in collaboration with Industry will ensure better and economical broadband services in Pakistan. As of the writing of this report a Broadband connection is available in Pakistan for as low as Rs. 1200 for a 512Kbps connection with unlimited download.

Figure-11 Broadband subscribers



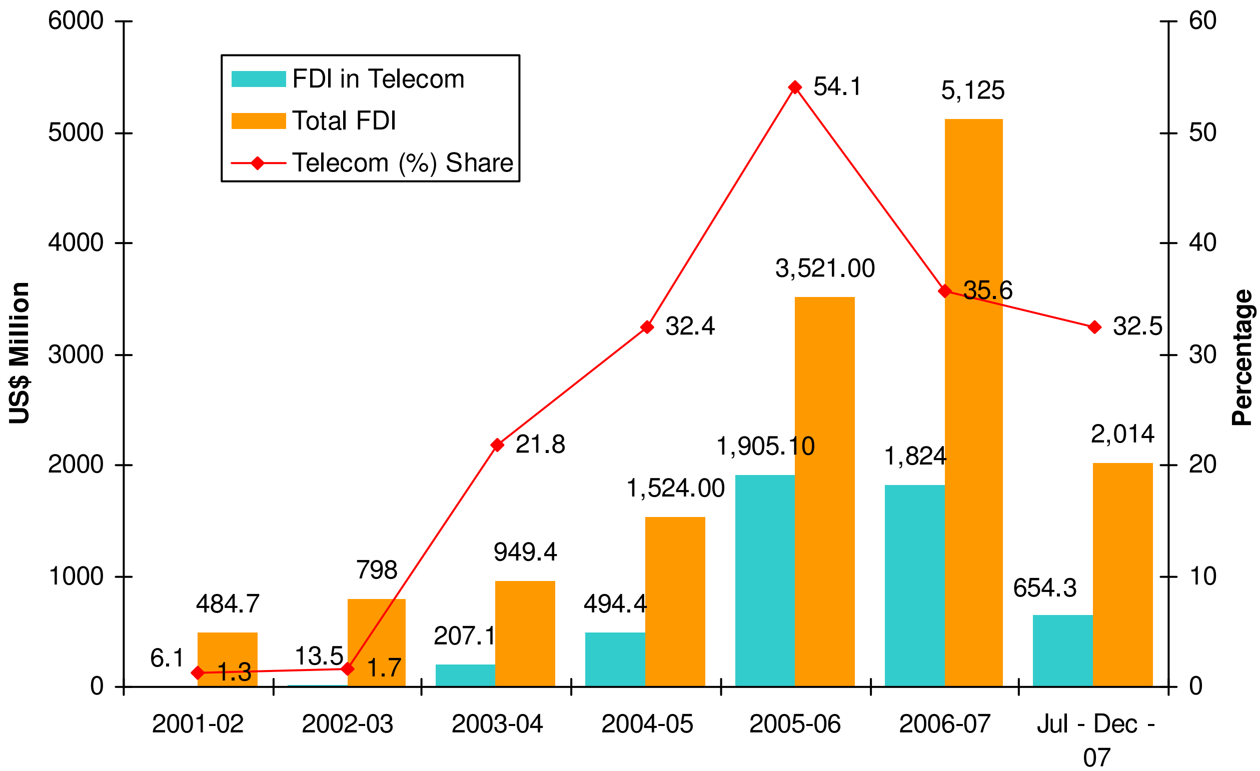
Impact of Deregulation on Economy

The impact of telecom deregulation on overall economy is quite obvious. A total of Rs 235,613 million revenue was generated by telecom industry in 2007. This contribution has major impact on economy of Pakistan. The sector is currently contributing 2% GDP out of 7% to the Government of Pakistan.

Foreign Direct Investment (FDI)

Foreign Direct Investment is considered an important source of economic growth in this globalized world. PTA has created a conducive and investor friendly environment in the telecom sector by awarding licenses in a fair and transparent manner. In the last 2-3 years the telecom sector has attracted record inflows of FDI. During 2005-06, telecom sector received over US$ 1.8 billion FDI and emerged as the only sector of the economy to attract such huge investment where its share in total FDI crossed 54%. During 2006-07, telecom sector has received above US$ 1,824 million FDI, which was about 35% of total FDI in the country.

Figure-12 FDI in Telecom



It is expected that the trend of investment may continue in the next 5 years because large potential market still exists in Pakistan and all operators intend to grab their share. China Mobile acquired Paktel which has contracted out US$ 500 million worth of project to renowned companies like Ericsson, ZTE and Alcatel to roll out their networks. Similarly Mobilink also plan to invest US$ 500 million in 2007-08 for improving and expanding its quality of service.

Telecom Imports

Government of Pakistan is striving hard to decelerate total imports of Paksitan.Imports for 2006-07 were targeted to decline by 2.1%, however the total imports registered at the end of 2007 were 667.8 million USD.The exponential growth in the telecom sector is burdening the overall imports of Pakistan where sector requires spending of about US$ 1 billion just on the import of Cellular mobile handsets annually, which puts burden on our foreign reserves and increases the trade gap.

Table-1 Telecom Imports **US$ Million**

Description	2003-04	2004-05	2005-06	2006-07	Jul - Dec – 07
Cellular Mobile sets with Battery	144.12	371.10	569.24	670.17	208.4
Other Telecom Apparatus	234.83	406.32	628.31	677.52	459.5
Total	**378.95**	**777.42**	**1,197.55**	**1,347.68**	**667.8**

Government of Pakistan is offering incentives to manufacturers of telecom network and CPE equipment to consider manufacturing of cellular mobile handsets and other CPE in Pakistan where cheap skilled and unskilled labor is available along with a huge population base for consumption. According to an estimate cellular mobile companies have access to only 61% of the target market in Pakistan and they can still access the remaining 39%.

Employment in Telecom Sector

The telecommunication sector in Pakistan has undergone considerable transformations following the award of two new mobile licenses, FLL & WLL licenses and privatization of PTCL, the incumbent. Stiff competition among operators to grab the market share has compelled operators to roll out their infrastructure rapidly, which has created huge employment opportunities (direct and indirect). The telecom sector has vast linkages with all other sectors where it is producing large employment opportunities such as civil work for installation of towers, support service providers, SIM and handset retailers etc.

Table-2 Direct and Indirect Employment in Telecom Sector

Sector	2003-04	2004-05	2005-06	2006-07
Cellular Mobile	**130,770**	**242,026**	**516,760**	**743,025**
Direct	*6,000*	*9,000*	*10,000*	*12,000*
Indirect	*44,296*	*84,087*	*188,754*	*273,779*
Induced	*80,474*	*148,939*	*318,006*	*457,246*
Local Loop				12,898
WLL	1,318	2,303	2,917	2,500
LDI	99,231	106,942	112,943	117,666
Broadband	345	462	623	746
Payphones	231,150	349,150	441,493	484,363
Equipment vendors/ suppliers	3,254	4,485	4,996	5,500
TOTAL	**466,068**	**705,368**	**1,079,732**	**1,366,698**

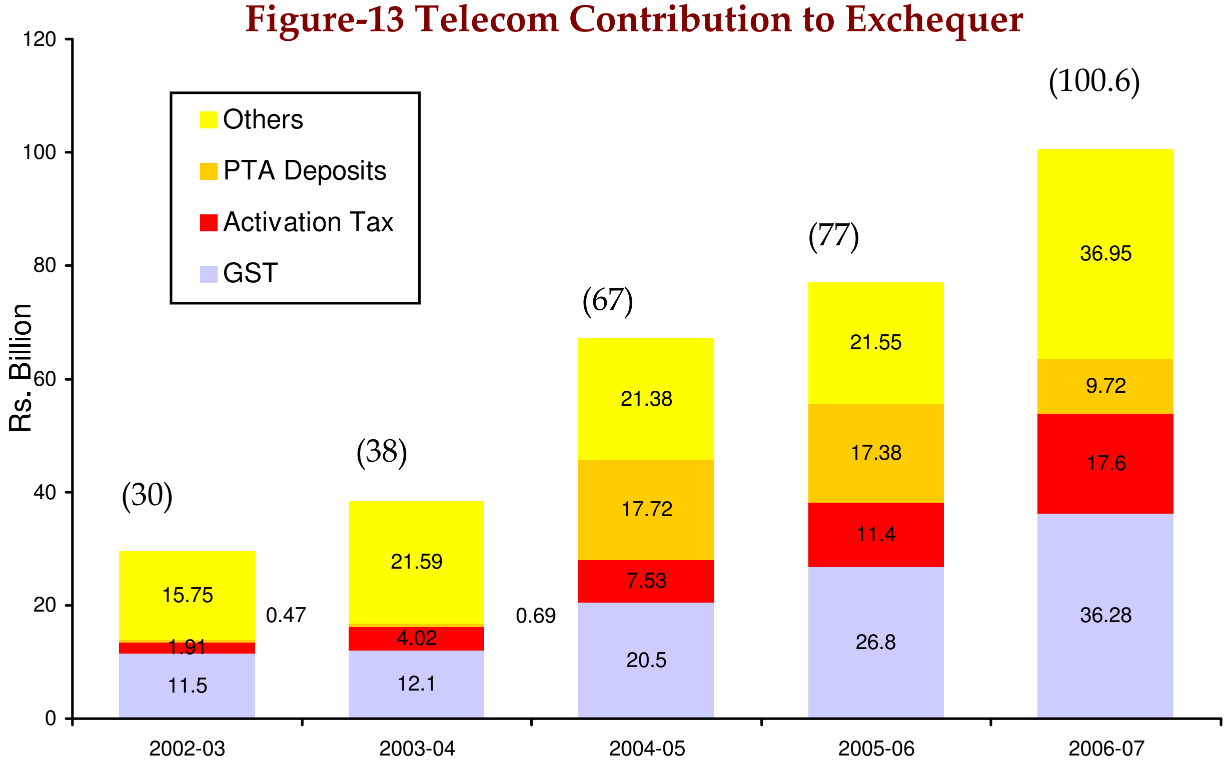
Deloitte has estimated that so far about 212,000 employment opportunities have been generated countrywide by the mobile sector only. A study conducted by TEACH has estimated that Cellular

Mobile sector has generated about 743,025 employment opportunities which include direct, indirect and induced employment in linked sectors of the economy 260,000 employment opportunities have been generated by other segments of telecom sector including WLL,LDI and card payphones.

Taxes on Telecom Sector

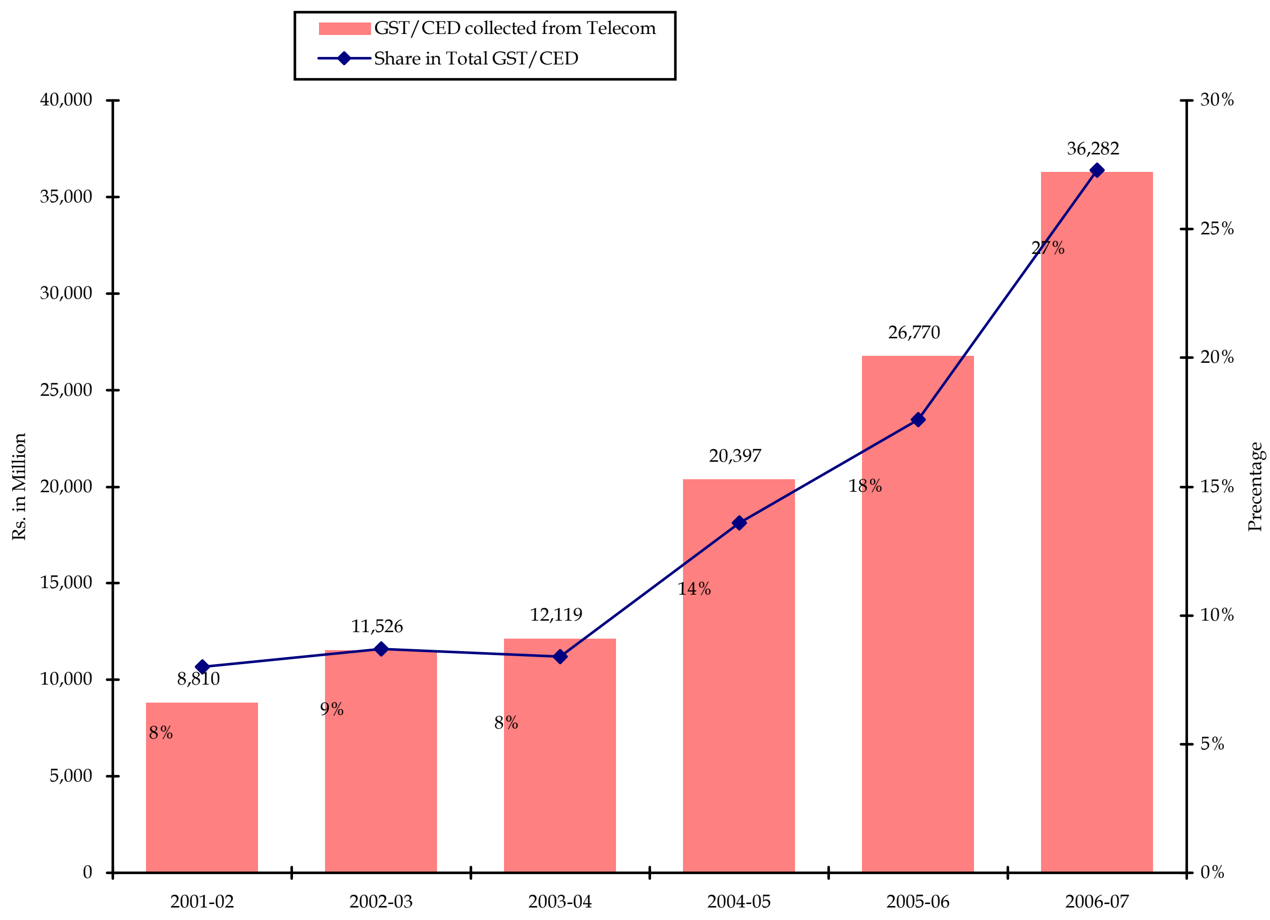
Telecom sector is a major contributor in generating revenues for the Government in the form of taxes, duties and regulatory charges. To generate adequate level of revenues government is undergoing large tax reforms which include broad based tax policy and tax administrative reforms which aimed to reduce indirect taxes that are considered regressive taxes.

Figure-13 Telecom Contribution to Exchequer



During 2006-07 total revenue collected by the Government in the form of taxes and Regulatory fee was more than Rs. 100 billion which is about 30% higher than the last year. Indirect tax in the form of GST/CED has the major share in total government collection from telecom sector which was Rs. 26 billion in 2005-06 and its share in total was 34%. In 2006-07 Government collected Rs. 36.3 billion GST from the telecom sector and its share in total telecom taxes has increased to 36%. The increase in these government revenues are attributed to increased teledensity and increase in the usage of telephony for voice & data.

Figure-14 GST/CED Collection from the Telecom Sector (% Share in Total)



Conclusion

Telecom sector is growing at an outstanding pace where all stakeholders are getting due benefit out of it. PTA is fully abreast of the rapidly developing technological advancements at the global telecom scene. The aim of the Pakistani regulator is to foresee and be proactive in providing conductive environment for the operators in order to facilitate them and introduce state of the art telecom facilities in the country. Telecom sector is contributing about 2% in GDP directly and if we include its indirect contribution in other sectors this share comes to about 5%. It is expected that fixed as well as wireless sectors will grow considerably in next future years.

Broadband in the last mile, Value added products and content development are rather barely explored markets and offer a great deal to an aggressive investor. 3G services in major cities would take a slow start but will catch on fairly well and will be a major contributor in satisfying consumer's needs provided these are offered at affordable cost with easy access, availability, reliability and with abundant content.