

4

Mobile Cellular Services





Verview

Driven by lowest tariffs, maximum coverage and even 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. Steady growth saw addition of more than two million subscribers to existing Mobile network every month in the last year. More than 10,000 cell sites were erected across the provinces. Network coverage of almost 90% of the total population of Pakistan has made mobile industry even more attractive for foreign investment. The industry has responded positively refuting all negative perceptions and forecasts.

While analyzing the current status of the mobile market, it is seen that there is a strong competition among 4 operators, of which declared SMP, Mobilink maintained its lead by a large gap with the rest. Mobilink performed well during the fiscal year 2007 where subscribers increased from 17.2 million in 2006

to 26.2 million in 2007., However, the company lost its share in the market from 50% in 2006 to 42% in 2007. Services like Bolo SMS, additional free SMS, improved quality of service and strong brand promotion helped the company to maintain its leading position in the market. Currently the company maintains largest customer support system with around 650 call center agents only in Lahore. Ufone is maintaining its subscriber base in the market, however, the company needs big push from its new owners (ETISALAT) in shape of more investments in order to increase and enhance its network and quality. Network and infrastructure expansion that was carried out in 2006 progressed and more is being planned to deploy WLL, Wimax etc. In the largest network expansion deal of Pakistan, PTCL has signed with Huawei a US\$ 550 million deal, which will allow Ufone to double its capacity. Analysts expect Ufone to be an increasingly major contributor to PTCL earnings. This indicates the growth in wireless sector and the competition in fixed-line and other sectors. Telenor in a very short span of time gained

third position in the market, although its subscriber share is as low as 16% but larger revenue generation, more investments in cell sites and network, to value added services like Mobile TV and better quality standards has placed the company in third position. Telenor Pakistan has taken the lead in ensuring end-to-end QoS with Nexus Telecom's "NETVIEW" - a centralized QoS Management System. The system will help Telenor Pakistan to guard and ensure its Quality of Service for nation-wide LDI and GSM services.

Warid telecom performed well last year but did not maintain its growth patterns current year. Lower investments, unattractive marketing schemes, dropping ARPU's and very low coverage presented the company from growing faster. Singtel which has bought 30% shares of the company is expected to revive Warid's popularity. Paktel's take over by China mobile and depict, that local market is still very lucrative for foreign investors. Analysts say that Pakistan market still has a great potential to attract more foreign investment. Instaphone, however is struggling to come out of shadows. The company which is owned by Telecard group is expected to be purchased by some investor to bring in CDMA technology to mobile services. Pakistan Telecommunication Authority continued to play a pivotal role in liberalizing the sector, which finally kicked off swift growth in each segment of the sector. To sustain these growth patterns, PTA has been continuously taking initiatives and corrective measures that are resulting in increasing the mobile penetration in the country.

3 G Licensing

The Mobile Cellular Policy -2004 provides framework for the award of 3rd Generation (3G) Mobile Licensing/spectrum auction. Cabinet Committee on Regulatory Bodies decided that three 3G mobile licenses/spectrum shall be auctioned amongst existing mobile operators in Pakistan. PTA was required to award 3G licenses by 2007. Anticipating the forthcoming licensing the Authority started working on it. Consequently Frequency Allocation Board was tasked to vacate frequency spectrum identified for the 3G auction and the Authority prepared Information Memorandum (IM) for 3G licensing which states that 3G frequency Spectrum has been arranged in blocks of 5MHz pair, the spectrum would be assigned through auction with base price for a block of 5MHz pair amounting to US\$107 Million (Based on auction winning price of 2004 cellular mobile licenses). Similarly according to IM, winner of auction can opt for up to maximum of two block of spectrum and would need to provide broadband internet/data services with rollout obligations etc. The draft IM was circulated to all stake holders including mobile operators for their opinion and input. Final viewpoint of industry was then solicited in an open industry forum held in Islamabad on 21st May 2007. The industry strongly recommended delay in the licensing of 3G services. The industry is of the view that the mobile data market in Pakistan is insignificant, the

base price is very high and the local market is not ready for it. Similarly the operators had some other apprehensions about going for 3G licensing. The Authority therefore considering operators (who are the main stake holders) viewpoint, has forwarded industry's concern and its own viewpoint to the Government of Pakistan. PTA has sought guideline from government on the time frame, base price and other frequency issue before issuing 3G licenses. 3G licensing would be finalized as soon as policy directives are given to PTA.

China Mobile Entry Into Pakistan Telecom Market

Millicom International Cellular (MIC) signed an agreement for the sale of 88.66% holding in Pakistani cellular carrier Paktel to China Mobile for cash consideration of US\$ 460 million. Later on, China Mobile Ltd. bought remaining 11.4% of share of Paktel Ltd. for US\$ 17.3 million. China Mobile ranks first in the world in terms of the network scale and the customer base. China Mobile made an investment of US\$ 704 million in Pakistan during year 2006 - 07 to expand the (CMPak) networks. China Mobile Communications Corporation is entirely owned by the Chinese Government. China Mobile is the most valuable telecom company in the world, which is listed in the Hong Kong and New York Stock Exchange. This deal marked the first step of China Mobile's global expansion and the formal entry into the Pakistani telecom market. The regulator has facilitated China Mobile for smooth takeover of Paktel and in this regard has also provided the company with temporary frequencies for expansion of their network. CMPak contracted out US\$ 500 million project to various companies in Pakistan on 22nd January 2007, but still its expansion remained limited. The company has been awarded the license to operate mobile cellular services in AJK and Northern Areas on 22nd August 2007.



Status of Pakistan in the Arena of Emerging Economies

Emerging markets are accounting for almost two third of all mobile subscriptions in the world. The emerging markets that basically constitute the less developed countries are actually holding keys to subscription and revenue growth both for operators and vendors. Currently countries including China, India, Indonesia Bangladesh and Pakistan are the most significant emerging markets. Pakistan stands at a reasonably good position among emerging economies while comparing the extent of mobile penetration. The net addition in mobile subscribers places Pakistan at 3rd position among **top 10 growth countries**⁸ right behind India, which is at 2nd position. However, the mobile penetration in India is far less than Pakistan. Bangladesh is another country where mobile boom is setting in, as the penetration is increasing at a faster rate as compared to other regional countries.

Table - 9
Mobile Penetration of Regional Countries (%)
2005-07

Countries	2004 -05	2005 -06	2006 -07
Hong Kong	123.1	124.4	137.2
Singapore	93.7	100.7	109.5
Malaysia	60.1	76.8	-
Pakistan	14.0	22.4	40.1
Sir Lanka	17.1	17.4	21.5
India	6.8	8.1	11.3
Bangladesh	3.9	7.8	19.83
Nepal	0.98	1.5	5.26

Source: Respective Regulatory Authorities

With almost 950 million mobile users in the Asia Pacific Region⁹ at the end of 2006, Mobilink has gained a share of 3% in total mobile subscribers across Asia Pacific. China Mobile, which owns almost 44% of the share in total mobile users in the region, has recently joined the Pakistan telecom sector.

Series of successful years of telecommunications in Pakistan has gained attention of independent rating agencies and consultants around the globe. Pakistan mobile market is the fourth fastest mobile growth market in the world, and third largest in Asia only behind India and China¹⁰. In this regard the Government of Pakistan and the Authority was recognized by the GSM Association and the ITU and were awarded the Government Leadership Award (GSMA) and G-REX award by ITU. In 2007 an independent Non-profit telecom organization LIRNEasia (Sri Lanka) in its study of six countries has rated telecom regulatory environment of Pakistan as the best. The rating was made on the basis of effective regulation in terms of market entry, interconnection, universal service and utilization of scarce resource. The mobile segment in particular out performed rest of the five countries mobile sectors.

⁸Wireless Intelligence Report Q1 2007

⁹Business Monitor International - Pakistan Telecommunication Report Q2 2007

¹⁰Business Monitor International - Pakistan Telecommunication Report Q1 2007

Mobile Sector Financials

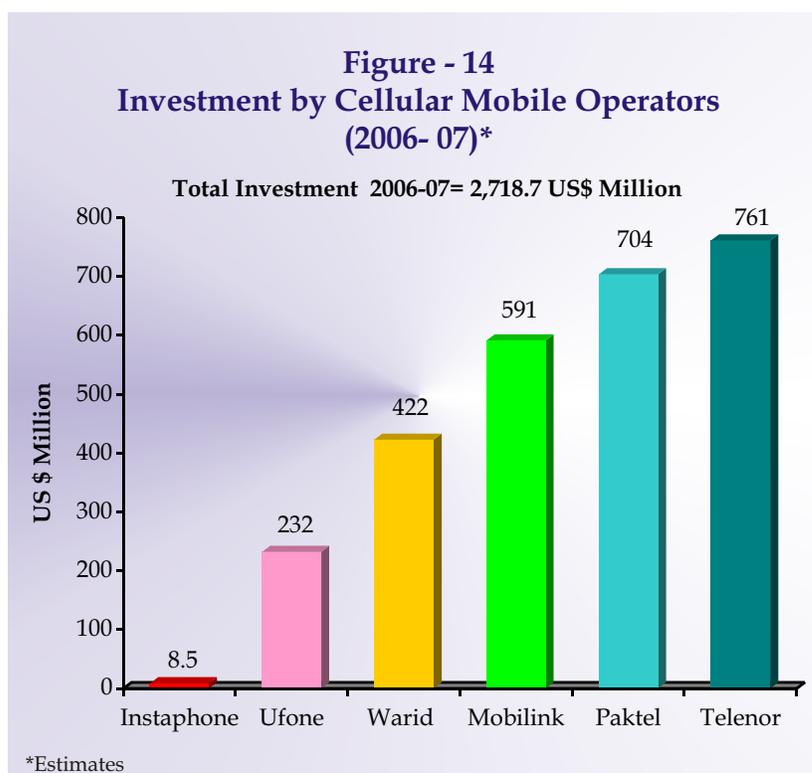
Investments

Higher investment, affordable handset and improvement in coverage are considered to be the stimulants of growth in mobile segments. Mobile sector of Pakistan attracted large foreign investments after the liberalization. The foreign telecom companies realized huge market potential in the country and thus invested not only in paying high license fees but also invested in the infrastructure.

The exceptionally good response of market and ever increasing potential has kept the foreign investors still eyeing for opportunities to invest in Pakistan. China mobile the largest mobile operator in Asia has just entered Pakistan mobile market by investing almost US\$ 704 million and has bought Paktel limited. China Mobile's takeover of Paktel is promising move that is believed to bring the life back to the company. Similarly Singtel who has been trying to enter Pakistan telecom sector has finally got successful

by buying 30% shares of Waird Telecom and has invested almost US\$ 758 million. Although Waird has been making good investments from its own resources (both local and foreign) however it was grappling with low ARPUs that could only be managed through big foreign backing. Similarly local operators have also been able to access funds from international capital markets and Mobilink has been fairly successful in this regard, when the company completed US\$ 250 million bond offering in late 2006. It seems to be altogether an uphill task for Etisalat in managing the giant PTCL therefore it is still weighing its options for decanting more investments in its inherited Ufone. Telenor, keeping the tradition of best practices is investing in the right areas and is closing the gap with market leaders.

Mobile sector has alone invested US\$ 6 billion in Pakistan in last four years where Telenor invested US\$ 761 million (29%) while Mobilink has invested US\$ 591 million (23%) in the year 2007.



Mobilink planned to invest US\$ 500 million in 2007-08 while Telenor plans to invest US\$ 750million in next two years.

Revenues

Across the globe the prices of mobile calls are dropping down and key drivers behind this drop is increasing competition among mobile operators in local industries. Also in some countries price drops are forced by competition of operators with MVNOs. Similarly mobile operators are also competing with fixed call prices which is resulting in falling revenues of mobile operators across the world.

With 78% increase in subscriber base and 95% increase in investments, mobile revenues grew by 48% only in 2006-07. The mobile industry was growing at an average rate of 80% for last three years however this year the growth rate dropped. This drop is mainly due to reduced tariffs and increased taxes. Similarly the industry is now moving towards stability and cost of attracting and retaining

Table - 10
Total Revenue by Mobile Operators 2004-07

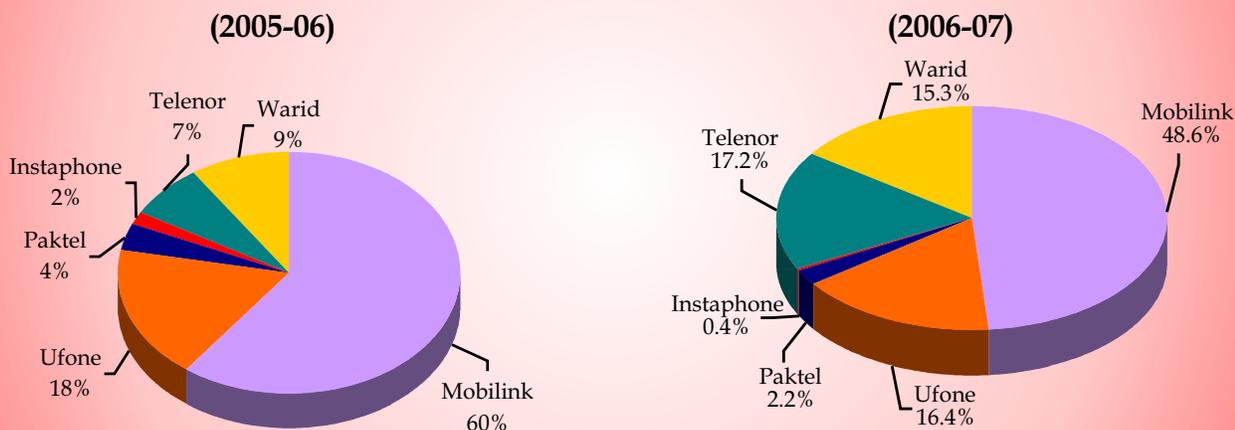
Rs. Millions				
Company	2003 -04	2004 -05	2005 -06	2006 -07E
Mobilink	18,136	34,456	54,065	64,654
Ufone	4,374	8,599	16,098	21,867
Paktel	2,134	2,400	3,329	2,897
Instaphone	3,196	2,693	1,539	472
Telenor	-	565	6,338	22,837
Warid Telecom	-	168	8,527	20,405
Total	27,840	48,880	89,896	133,132

E= Estimates based on three quarters statistics

Tabal - 11
Total Revenue from Data/Voice Services Mobile Operator Wise (2007)

Rs. Millions		
Operator	Data	Voice
Mobilink	3,830	60,824
Ufone	1,559	20,308
Telenor	182	18,129
Warid	1,338	15,785
Paktel	148	2,749
Instaphone	-	472
Total	7,057	118,267

Figure - 15
Revenue Share in Mobile Market 2005-07



subscribers is increasing. Telenor and Warid have witnessed huge growth in their total revenues that have grown by more than 200%. Revenues of Mobilink and Ufone grew at a proportional pace, however, Mobilink remained to be a major contributor in the total revenue of the industry due to its size. Instaphone revenues kept on falling for another consecutive year. It is also revealed that almost 5% of the total revenues of mobile industry came from data services and more than 90% revenues came from voice services in 2007. The revenue received on data services from the industry shows large difference between data and voice revenues. Operators around the world are relying more on data services to maintain their ARPUs therefore our local industry needs to work on improving this difference.

As for the market share, Mobilink is still having maximum share in the market in terms of revenue with almost 50% of industry revenue is generated by Mobilink. Telenor having market share of 17% is second highest revenue generator of mobile industry followed by Ufone and then Waird.

Average Revenue Per User

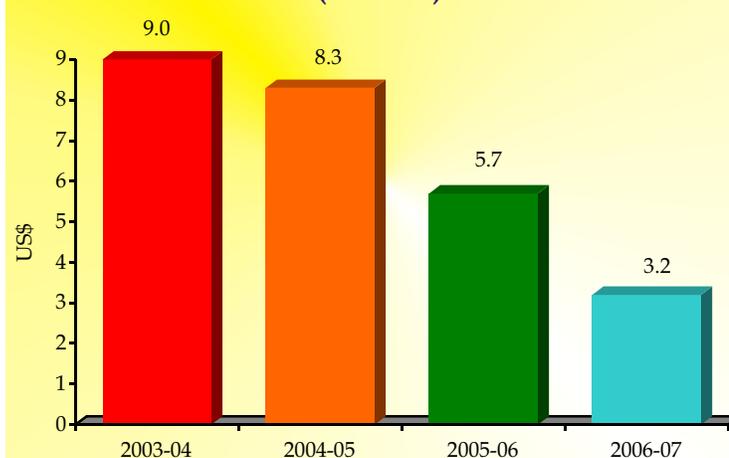
Across the world Average Revenue Per User (ARPU's) are dropping and very few countries are experiencing upward trends in ARPU growth. Developing countries particularly some of the emerging telecom markets are facing steepest declines in ARPU's. Although on the contrary fastest growth in subscription is also taking place in the emerging markets. This can be attributed to the fact that operators are reducing cost of ownership and subsidizing the tariff to the extent of undercutting the cost. This has not only reduced their ARPU's but has also affected their profitability. Similarly declining ARPU's are also due to the reduction in mobile termination rates and effect of MVNO's. To this end across the globe the developing world is now relying on mobile content strategy to boost their ARPU's.

Cellular mobile market of Pakistan is not an exception where ARPUs have

Table - 12
Revenue Per User Per Month by
Mobile Operators (2006-07)

US\$	
Operator	ARPU
Mobilink	3.8
Ufone	2.8
Paktel	3.3
Telenor	4.0
Warid	2.5
Instaphone	2.1

Figure - 16
Average Revenue Per User Per Month
(2004-07)



been declining. This drop was moderate till 2005 but rapid decline was experienced in preceding years. Last year there was 31% decline in the industry ARPU and in the reporting year this drop was almost 44%. Lower usage (MoU), lower ownership costs and higher prepaid to postpaid subscription ratio (98:2) are termed as main reasons for low ARPU's. While Analyzing the companywise ARPU in 2007 Telenor lead the market with highest ARPU of US\$4 followed by Moblink with US\$ 3.8 and Warid 3.4. Ufone's ARPU for 2007 was US\$ 2.8 which become basis for low industry ARPU. It is therefore, concluded that companies should work on increasing the usage of voice service on mobile network in addition bundled offers like voice and SMS which is already present in the market may be augmented by offering services like mobile TV and GPRS in the package deal. All this would result in bringing some stability to decreasing ARPU in local industry.

Taxes on Cellular Mobile

Pakistan telecom sector is one of the biggest contributor to national exchequer and mobile segment submits major chunk in this telecom contribution. The main heads under which mobile industry pays taxes to the

Table - 13
Taxes by Cellular Mobile Sector

	2003 -04	2004 -05	2005 -06	2006 -07
General Sales Tax	5243	9872	18,770	28,324
Activation Tax	4,020	7,577	11,398	17,579
Withholding Tax	2,256	4,470	8,584	17,438
Total	11,519	21,919	38,752	63,341

government include GST/ CED, Activation tax, Withholding tax and income tax etc. Pakistan telecom Authority has been pursuing the government to reduce taxes on mobile sector for a long time. In its efforts the activation tax has been reduced from Rs. 2000 to Rs. 500 and the taxes charged by the civic bodies on erection of BTS has also been reduced to an acceptable level. However, among the emerging countries Pakistan is still on a higher side with regards to taxes levied by the government o mobile services. GSM association is also convincing Pakistan to reduce taxes on the sector to further enhance ongoing growth patterns.

During 2007 mobile segment contributed more than Rs. 66 billion to national exchequer in the form of taxes which is more than 70% of total telecom contributions. There is an increase of 70% in this contribution i.e. in 2006 it contributed Rs. 38.8 billion. In 2006 total activation tax paid by mobile sector was Rs. 11.4 billion which grew to Rs. 17.6 billion showing a growth of 24% whereas withholding tax paid by the sector grew from Rs. 8.5 billion to Rs. 17.4 billion showing almost 100% increase. GST contribution by the sector has however been dropped from Rs. 18 billion to Rs. 28.3 billion.

Socio-economic Impact of Cellular Mobile

Growth of telecom sector in general and cellular Mobile sector in particular in Pakistan has tremendous socio economic impact on Pakistan economy in terms of productivity gain, revenue generation for government, employment creation and social cost savings. According to a study by Deloitte, Mobile sector contributed a total of Rs. 312 billion to the economy in 2006, representing more than 5% of GDP. Economic impact of mobile industry in Pakistan in terms of productivity gain, intangible benefits like improvement in access to health services, educational facilities etc as well as supply side impact in terms of consumer surplus have been exhibited in Figure.

Deloitte further explores that Mobile communication in Pakistan has raised GDP growth rates by 0.12% for each 1% increase in penetration. Resultantly, an increase of about 28 million in subscribers between 2005 and 2006 may have contributed 1.7% to the country's GDP growth.

PTA has also carried out a study on socio economic impact of cellular mobile growth in Pakistan. Conducted by an independent organization TEACHE, the study also revealed a significant impact of cellular mobile growth on Pakistan economy.

Micro-level Impacts

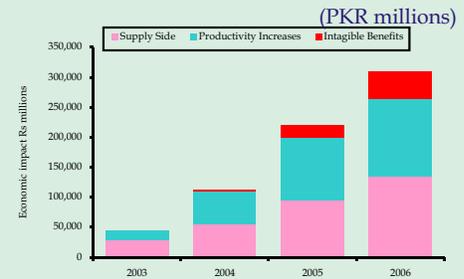
A survey of 1,269 mobile phone users was conducted during March 2007 in all four provinces and AJs & NAs. The study finds that use of mobile has created socio-economic awareness among the users in changing their life style, in improvement of their business and related activities, saving time on inter city trips and local visits and ultimately in saving money and increase in their sales and income. The use of mobile phone on average made 35% increase in the sales of individual businessmen that were included in the survey.

Use of mobile has also increased the access to medical, financial and other services. According to survey results, more than 52% respondents reported that use of mobile has improved their access to doctors and health persons. It also improved their family cohesion and elevated women's role and say in family and society.

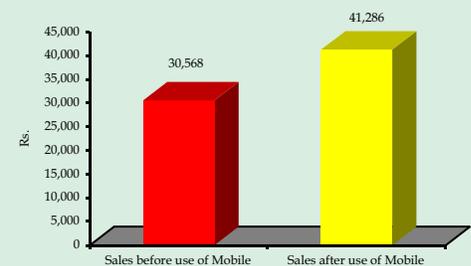
Employment Generation

The study also analyzed the business outlook and the value chain of the mobile sector in the country. It estimated a current employment level of 354,042 employees engaged in the telecom sector at various level of value chain including employment at operators, vendors, and tower business and cell shops. It is projected that 58,009 direct and indirect employment opportunities would be created in the year 2007-08.

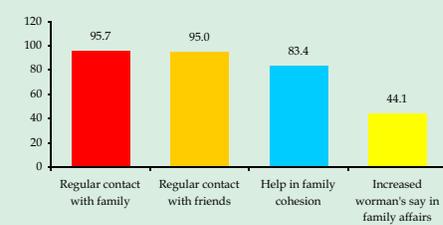
Economic Impact of Mobile Communications in Pakistan



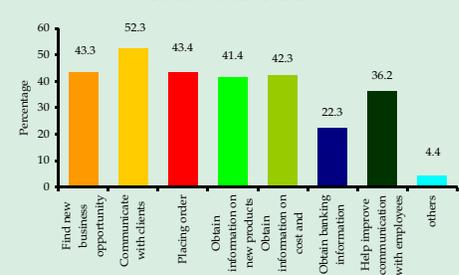
Average Increase in Sales of Individual Businessman



Use of Mobile for Social Activities



Use of Mobile Phones for Business/Work Related Activities



Subscription and Penetration

Subscribers Growth

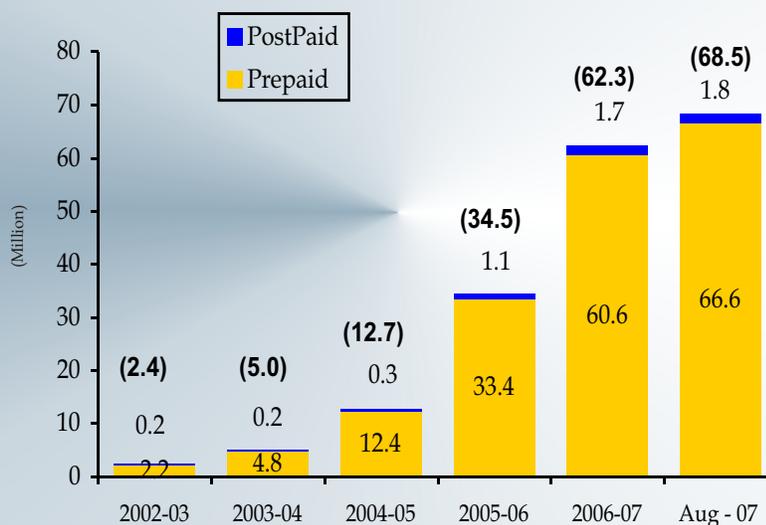
Pakistan has become one of the fastest growing mobile markets among the emerging telecom markets. This year the sector grew by 80% whereas average growth rate in last 4 years is more than 100%. Today total subscriber base stands at 68.5 million (August 2007) whereas it was 34.5 million in 2006 and 12.7 million in 2005. This tremendous growth is attributed to many internal and external factors starting from deregulation down to implementation of Mobile Number Portability. The government and regulator are trying their best to facilitate the sector and are making every effort to provide mobile access to every corner of the country. While looking at the

total subscriber base which is a mix of pre/post paid service this year too ratio of post to prepaid connection remained to be 3:97 showing that postpaid subscription which is related to business use is still very low, resulting in low ARPUs currently prevailing in the industry.

Pakistan Mobile industry is witnessing increasing net addition to total subscriber base for last five years. In 2006 the net addition was more than 21 million in one year showing 1.75 million average addition per month whereas in 2007 the net addition was more than 27 million increasing average addition to 2.3 million per month.

The province wise subscriber divide places Punjab at top position with 37 million subscribers followed by Sindh, NWFP and Balochistan. In Punjab and Sindh subscribers grew by more than 75% whereas in NWFP it was around 100%. As for Balochistan although the province remained instable both politically and otherwise but subscriber growth in the province remained maximum crossing more then 130% growth mark. This

Figure - 17
Postpaid and Prepaid Cellular Subscribers
(2003-2007)



*Values in parenthesis show total subscribers

Figure - 18
Net Addition in Total Mobile Subscribers
(2003-07)



Table - 14
Mobile Subscribers by Province
(2005-07)

Year	Millions			
	Punjab	Sindh	NWFP	Baluchistan
2004-05	7.3	4.2	1	0.3
2005-06	21.1	9.8	3	0.6
2006-07	37.4	17.2	6.3	1.4
Aug - 07	40.8	18.2	6.9	1.6

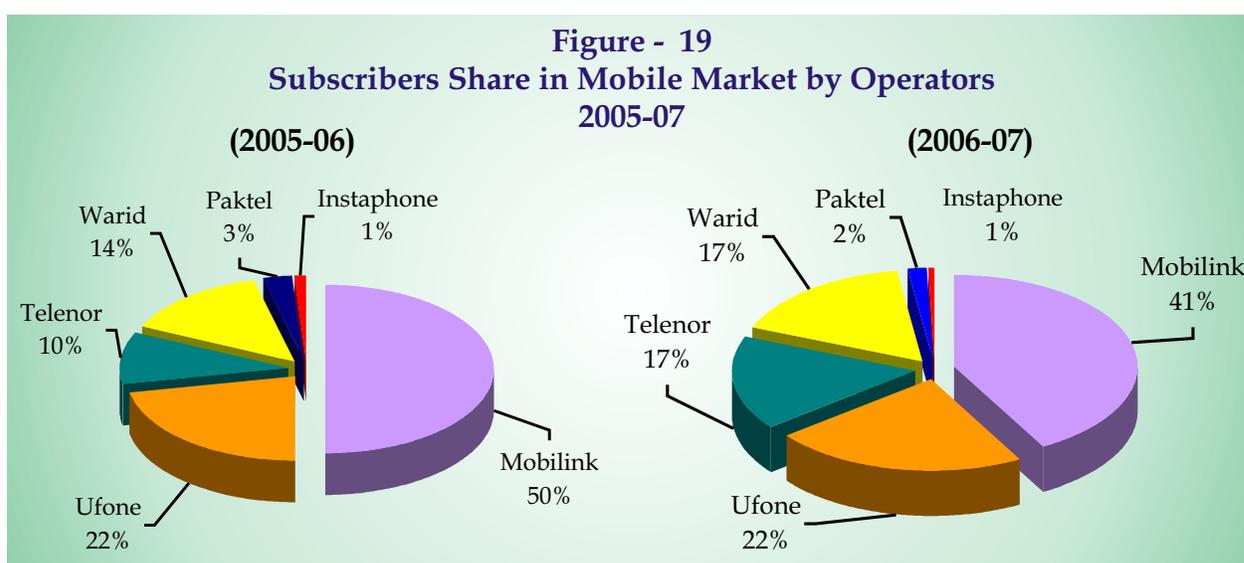
shows need for communication even in most adverse condition. The credit goes to the operators who with all odds kept on rolling out their networks in most difficult train and environment.

Table - 15
Mobile Subscribers by Company
(2003-07)

Year	Mobilink	Ufone	Telenor	Warid	Paktel	Instaphone
2002-03	1.1	0.6			0.3	0.4
2003-04	3.2	0.8			0.5	0.5
2004-05	7.5	2.6	0.8	0.5	0.9	0.5
2005-06	17.2	7.5	3.6	4.9	1.0	0.3
2006-07	26.2	13.9	10.4	10.3	1.0	0.3

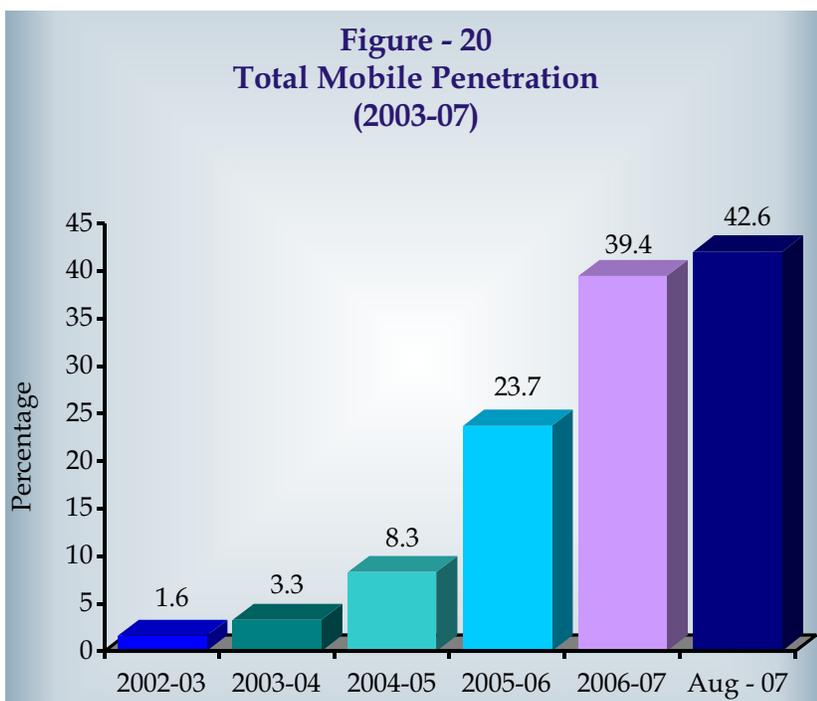
The subscribers of Mobilink grew by 50% only during this year however, Telenor added almost 7 million subscribers to its network during the reported year. In fact the company has been focusing on attracting both low-end and high end users and high data-usage customers by offering its extensive data oriented services. As for warid, the company attracted good over five million customers during 2007. Mobilink's new subscription during 2007 was only 9 million which is low as compared to last year's performance where the company had a new subscription of more than 10 million. Mobilink is still attracting and targeting high end users whereas everyone is now aware that most growth in the future will come from low-end segment. Ufone subscriber base grew by 85% in 2007 as the company is maintaining satisfactory quality of service in addition to attractive consumer oriented schemes like free airtime. Paktel and Instaphone's subscription growth remained stagnant during the year.

During the reported year share of each company in mobile market tended to change, except for Ufone whose subscriber share more or less remained unchanged. Mobilink kept on losing its share for another year in favour of Telenor and Warid mainly, whereas Paktel and Instaphone share in the market also dropped as both companies are struggling with transitional phase.



Penetration

Since 2003 the mobile penetration in the country has been increasing from 1.6% (2003) to 40.1 (2007). In five years the penetration grew at an average rate of more than 100%. Maximum penetration of mobile services is in Sindh followed by Punjab and the NWFP. Balochistan is the only province which is having as low as 16.6% penetration rate. Reason for higher penetration in Sindh and Punjab are higher business activity, higher literacy rate, easy terrain for



network roll out and densely populated areas. Mobile services are penetrating at a much faster rate in Baluchitsan however scattered population, difficult terrain, political instability and low literacy rate are creating hindrances for faster penetration of mobile services in the province. On direction of PTA, operators are taking special initiatives for roll out of their network.

**Table - 16
Mobile Penetration by Province (2004-07)**

Year	Punjab	Sindh	NWFP	Baluchistan
2003-04	3.4	4.5	1.7	1.5
2004-05	8.5	11.7	3.6	3.6
2005-06	23.9	27.3	8.1	8.1
2006-07	35.1	39.8	23.0	16.6

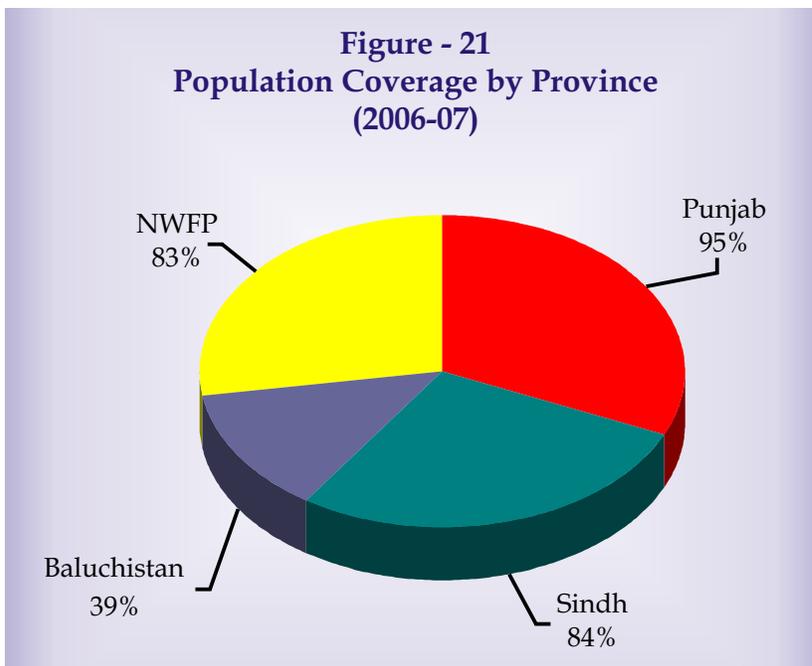
Mobile Network Coverage

In a competitive and heated mobile market of Pakistan, operator's survival lies in getting into new areas and providing better quality of services. For sustaining profitability levels coverage to maximum population is name of the game. This is only possible by rolling out networks and be the first to reach untapped population of the country. Since deregulation all operators have been increasing their coverage areas by rolling out networks to the areas with services in addition to enhancing the capacity of already covered areas.

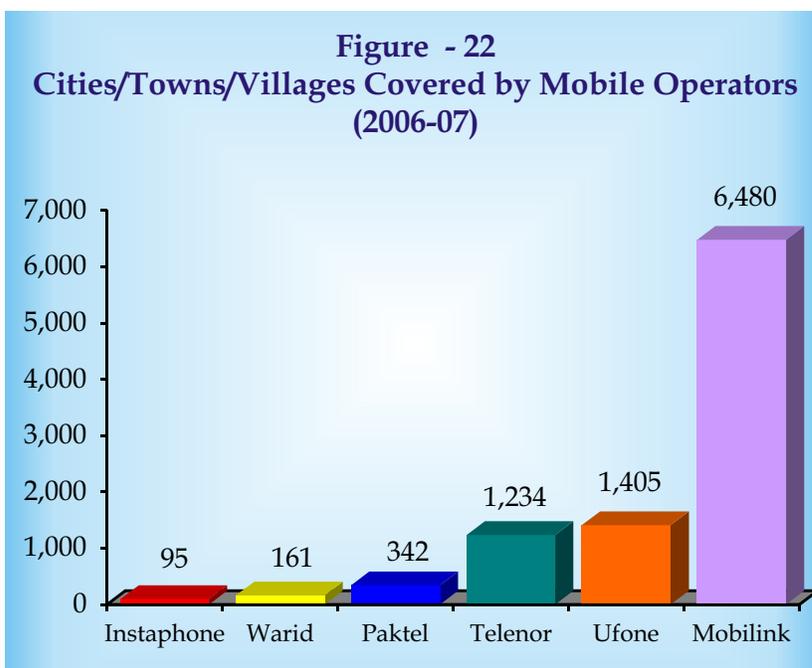
**Table 17
Tehsil Headquarters Covered by Mobile Networks**

Province	Tehsils Covered	Total Tehsil HQs	Percentage coverage
Punjab	128	129	99.2
Sind	82	92	89.1
Balochistan	20	84	23.8
NWFP	60	71	84.5
Total	290	376	77.1

Out of the total population of Pakistan, today almost 89.43% of population is covered with mobile networks in addition to availability of fixed and WLL services to this percentage. All operators are increasing their networks to number of cities/towns/villages. Today more than 6,000 cities/towns and villages have mobile networks by one or all operators. Maximum cities are covered by Mobilink which has the biggest cellular network in the



country. The company just had less than 1,000 cities/towns/villages on its network in 2006 but this year company intensely invested in increasing their network area and the number jumped to more than 6,000 destination. Ufone also added new areas to its network however, the company has maximum coverage in Balochistan with 45 cities/towns/villages. Telenor has also increased its number of cities covered and this year concentrated more on NWFP and AJ&K. Waird hardly added new cities to its network i.e in 2006 the company had coverage in 116 cities which grew to 161 cities in 2007. Out of 376 tehsils across Pakistan, almost 290 are covered with mobile networks, showing almost 77% of total tehsils covered. Mini-mum number of tehsils covered are in Balochistan where only 20 out of 84 tehsils are covered. The cell sites also increased by large number over the years. In 2004 there were less than 2,000 cell sites erected by all mobile operators for provision of mobile services. Today total cell sites

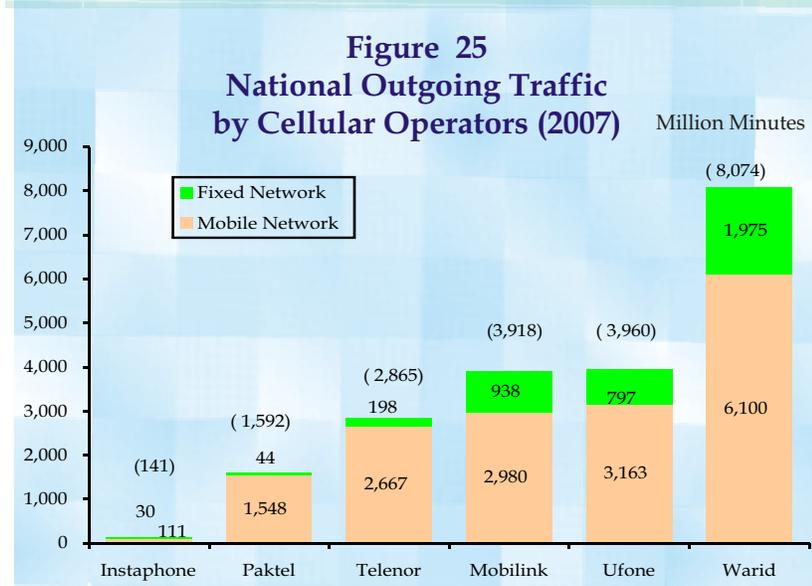
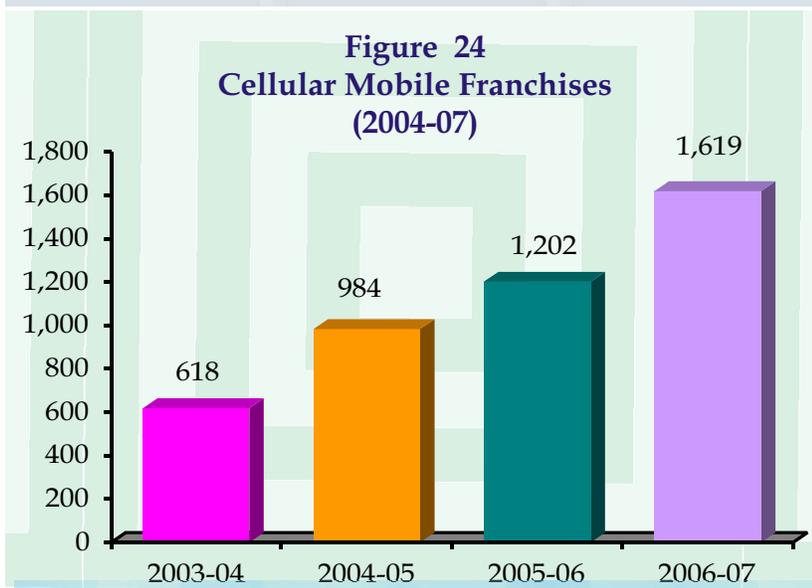
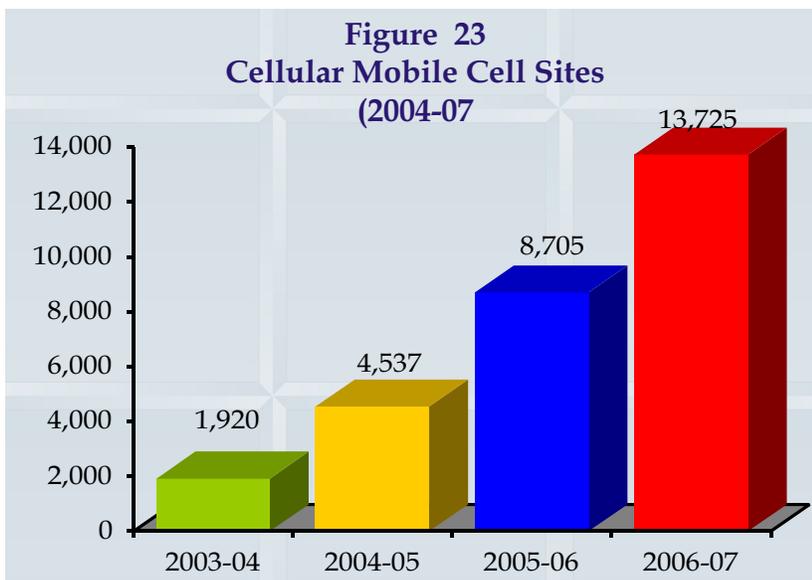


of all mobile operators are more than 13,500. all operators erected sites in all provinces but in less than a year more than 200 sell sites are erected in AJK by four licensed operators of AJK. Punjab has the most cell sites among all the provinces, since it is the most populated province and quality of service becomes a major issue once more and more subscribers are added to current network.

Total franchise of the operators are also increasing in order to support the growing number of subscribers and for better penetration of operators into newly covered areas. Today 1,619 franchises are working in Pakistan representing one or the other operator.

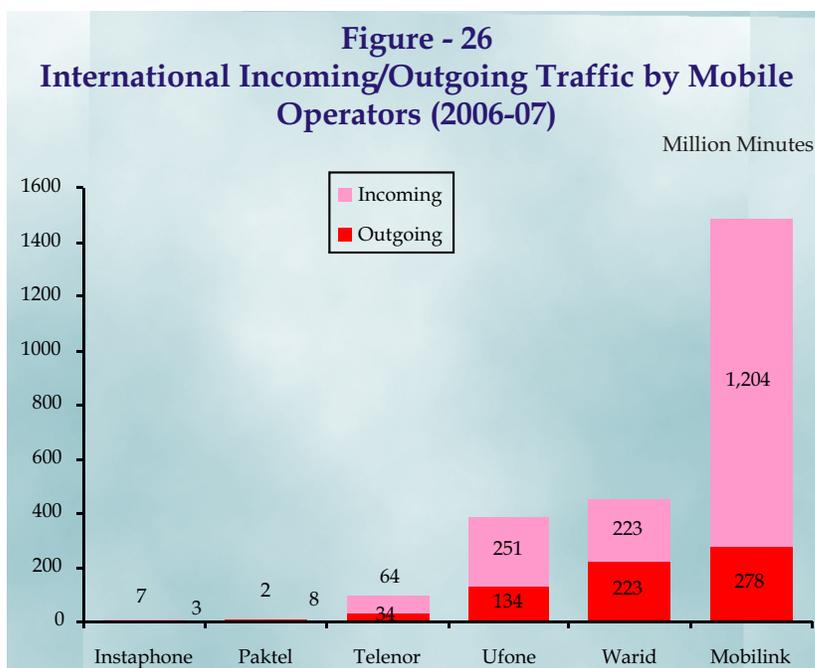
Cellular Mobile Traffic

During the reported period total traffic on the mobile networks grew mainly due to reduction in call tariffs, per second billing and increased new subscription. The local as well as international incoming and outgoing minutes increased significantly although local outgoing traffic to fixed

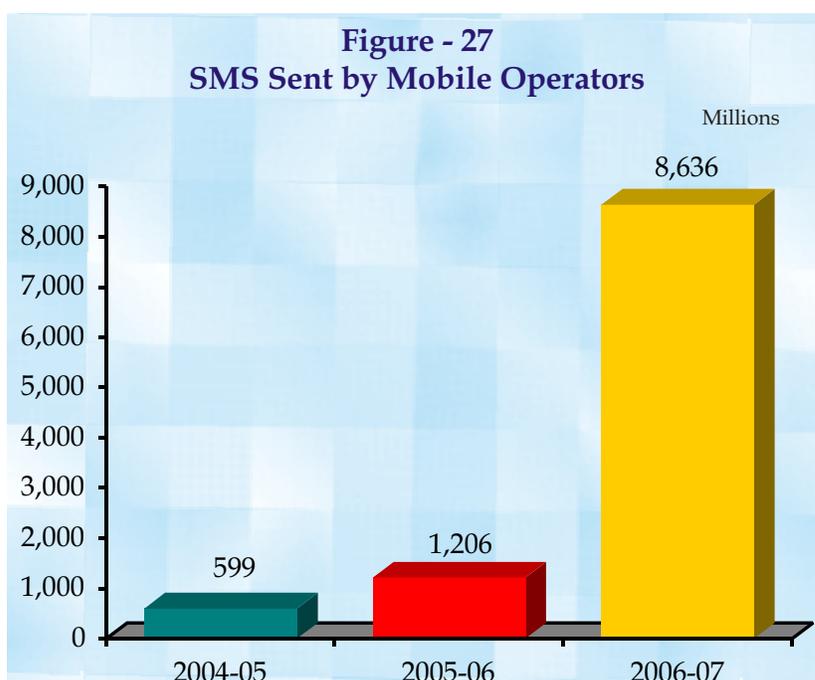


network was far lower than local outgoing traffic to mobile networks. There were 3,981 million outgoing minutes to fixed networks in 2007 where as 16,568 million were total outgoing minutes to mobile networks. Such a huge difference between traffic to mobile and fixed network was mainly due to larger subscriber base of mobile network in comparison to fixed network in addition free and minimum on-net charges offered by all mobile operators. Total

international traffic both incoming and outgoing on mobile networks was 2,431 million minutes, out of which maximum traffic was generated by Mobilink followed by Ufone. Warid had third highest international minutes terminated and originated from its network.



The world trend is now moving towards data traffic rather than voice, this shift although started in developed market few years back but in the emerging market like Pakistan it is still not performing very well. Philippines today is termed to be the highest SMS generating country in the world. The operators have been trying to increase the data traffic by giving bundle SMS offers but to low literacy rate and non availability of contents in local language is hampering this growth. Figure 27 shows three year total SMS generated by all mobile operators in

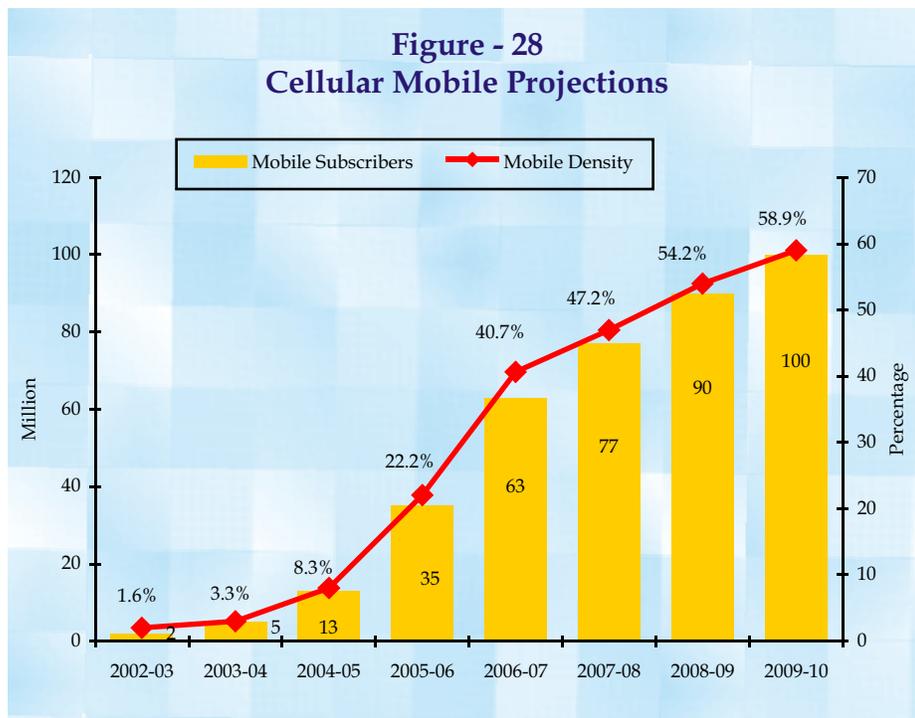


Pakistan. In 2006 the total SMS were 1,206 million, which grew to 8,636 million in 2007. One of the evidence of growing popularity of SMS can be confirmed from the fact that 400 million SMS were

exchanged on 20th July when the chief Justice of Pakistan was reinstated. This is the highest ever number of SMS generated in one day in the history of Pakistan.

Forecasting Pakistan Mobile Market

Forecasting for any telecommunication services is not a very easy job since the technology is changing at a lightening speed and is thus refashioning and undermining all the business models of operators in the sector. Future of Mobile industry dynamics will be depending upon fixed mobile substitution, convergence, wireless broadband and IP technology. Similarly increased choice of low-end and second hand handset would be a key to increasing subscription. Innovative marketing, attractive packages, bundled offers and cuts in call prices would be very important for increasing net additions.



Growth patterns achieved by mobile industry crossed all the forecasts made by the independent consultants and even the Authority. According to International research companies including both Business Monitor International¹¹ and Informa telecoms¹² the mobile subscribers would cross 110 million mark by 2010. The growth rate suggested by these research firms is on average between 20 to 25% per year. PTA estimate that the cellular subscribers would cross 77 million by the end of 2007-08 making above 2.0 million monthly average additions during the year. It is expected that most of the potential population would be covered by the next two years. Therefore, by the year 2009-10, the cellular subscribers would reach around 100 million making the cellular penetration 59 percent.

¹¹Pakistan Telecommunication Report Q2, 2007 by Business Monitor International

¹²Emerging Markets; Explaining Mobile Industry Growth In Asia Pacific ; Informa Telecoms & Media

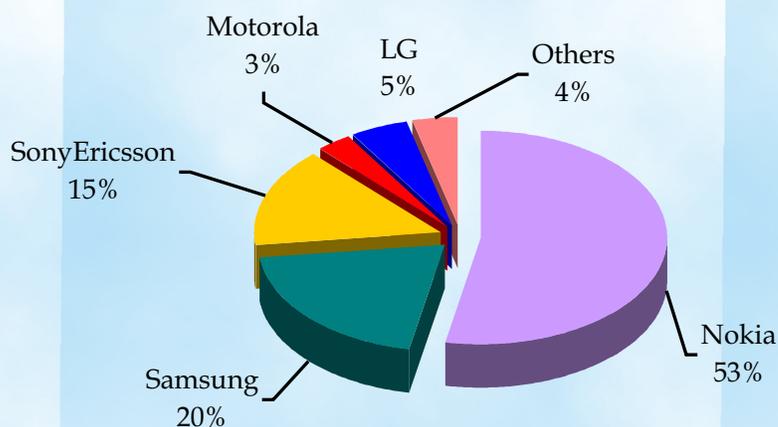
Mobile Handset Market

With the exponential growth in mobile sector, there has been similar growth in handsets market. Although Pakistan handset market comprises of number of authorized dealers, still large portion of handsets come illegally via smuggling, individual carrier of new/ used/ refurbished sets from European and Middle Eastern Markets and other routes. Number of handsets imported through transparent channels via authorized dealers has

increased over the years owing to the after sales service facility, warranty and insurance by dealers. Nokia remained significant player in local handset market and contributed to approx 53% of the total handsets shipments during year 2006-07. Rest of the market has been covered by vendors like US player Motorola, European player Sony Ericsson and two Korean market players LG & Samsung. Very recently few players from China, like ZTE and Huwaei have started to sell their handsets in Pakistan market. Since the local market is extremely price sensitive mostly low to mid tier sets become very popular in the masses, in the reported year sets including Nokia 1110/1112, Samsung E250, Sony Ericsson K750i and Motorola Razr V3 turned out to be the most popular in the local market.

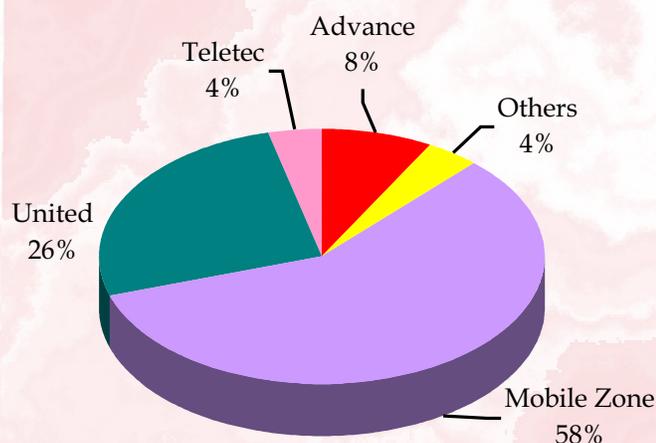
Currently Mobile zone is maintaining its share in the handset market. More than 58% of total documented handset market is owned by Mobilezone, followed by United mobile, which is gradually taking over the local market share.

Figure - 29
Handset Manufacturers Market Share in Pakistan 2006-07



Source: Mobile Zone

Figure - 30
Handset Companies Market Share 2007



Source: Mobile Zone