

SMS Report 2011

PAKISTAN TELECOMMUNICATION AUTHORITY

Strategy and Development Division

SMS TRAFFIC IN PAKISTAN DURING Y2010

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This report provides an in-depth analysis of the SMS traffic for year-2010 of all the GSM Cellular Operators in Pakistan. It includes the total SMS traffic being generated in Pakistan, monthly usage trend, inter-operator and intra-operator traffic volume. The report assumes a 80/20 split of 'Bundled' and 'Flat' rate SMS, estimates an average cost of an SMS and also arrives at the total revenues generated by the operators from SMS during the Year 2010. The scope of this document is to measure the SMS usage in the country, understand the trend and use the data for future policy formation for further growth of the industry.

During the year 2010, the total SMS generated in Pakistan were 175.4 billion, a 15.66% growth from the Y2009. Alternately, Y2010 saw an increase of 23.75 billion SMS than in Y2009.

Total cellular subscribers increased by almost 5.1% to reach 102.78 million by end-2010. As per the estimates total revenue generated from SMS this year, is approximately Rs. 22.5 billion.

The analyses indicate that 4.7 SMS are being sent by each mobile subscriber, every day i.e. (Approximately 5 SMS/day/subscriber) or 142 SMS per subscriber per month approximately.

As per Portio's research Report 'Mobile Messaging Features 2011-2015'¹, in year 2010, Asia Pacific (AP) contributed 42.9% of the Worldwide P2P SMS traffic. Only five countries in this region i.e. China, Philippine, Indonesia, Pakistan and India allows Asia Pacific to dominate the Worldwide P2P SMS traffic and its revenues, due to its large subscriber base and also heavy texting trends and techniques.

As per the report, in Y2010 Pacific's total SMS were amounted to be around Three Trillion (3 Trillion) and is all set to reach almost 5.6 Trillion by end-2015. This amounts to total Y-on-Y SMS increase in Asia Pacific by 17.33%.

The revenues generated during 2010 in Asia Pacific from SMS traffic stood USD 45.2 Billion, that makes 39.5% of WW revenues, and forecasted to reach USD 65.8 Billion by end-2015 which is estimated to be 41.4% of world SMS revenue, accounting for a Y-on-Y increase of 9.11% during the next five years.

Pakistan -Traffic in Y2010 (Approximate)	
Total SMS in Year-2010	175.393 Billion
Total No. Of Subscribers (Subs) end-2010	102,777,387
SMS per Subscriber per Month (SMS/Month/Subs)	142
SMS per Subscriber per day (SMS/Day/Subs)	Approx 5

Table 1

The increasing trends of SMS traffic and associated revenues in Pakistan seems comparable to that of trends. The SMS traffic growth in Pakistan was 15.66% during Y2010 in line with AP's forecasted growth of 17.33 % per annum from 2010 to 2015.

¹ <http://www.scribd.com/doc/55346564/Mobile-Messaging-Futures-2011-2015-Portio-Research-Ltd-EXTRACT-India>

Operator Status			
Operators (CMOs)	Subscriber share %	SMS Share %	SMS per Day/ Subscriber / Operator
Mobilink	30.94%	23.32%	4
Ufone	19.73%	29.05%	7
Telenor	24.03%	25.68%	5
Warid	17.04%	11.66%	3
Zong	8.27%	10.28%	6

Table 2

In this paper, all calculations are based on the Mobile originated SMSs only (same as sent or generated SMS) during the Year.

If we compute the Total SMS Activity* (TSA) of the subscribers during the year, that figure (Sent plus Received) would approximately be 350.785 billion (twice the 175.393).

***Note: Total SMS Activity of the subscriber may be defined as the total of all the SMS sent and SMS received by a subscriber during the period.**

It is worth mentioning here that for the Y2009, the analysis was based on the six months data provided by CMTOs. This analysis of Y2010 is based on the 12 months data i.e. from January 2010 to December 2010, so the percentage error is reduced due to minimum estimations in the analysis. The cost analysis of SMS for Y2009 was done on the bases of the average SMS cost and in this report, it is done on the bases of the minimum cost.

1. Year Wise SMS-Traffic Growth in Pakistan for the past five Years.

The growth observed during year 2010 is 15.66%. In the Years from 2006 to 2009 there was a tremendous rise in traffic, the year on year percentage growth was more than 90%. This enormous growth was due to two main factors,

- the phenomenal penetration of mobile after deregulation in the country,
- the falling SMS prices and bundled SMS offers.

This bundled SMS-offer blessing had lead the rural and bottom-of-pyramid segments to use the service instead of voice calls and hence infused an exponential rise in the percentage growth trends.

For Y2010, the Percentage-Difference-trendline seems to be relatively less exponential (Fig A), which depicts that the other parameters like the mobile penetration, affordability, awareness and many other factors have reached around their optimal and are subject to less change as compared to previous years.

It appears that there is a need for some attractive Value added services over SMS to keep the SMS traffic growing with exponential trends.

For the attractive value added services, many mobile network operators Worldwide have started to focus on Application-to-Person (A2P) & Person-to-Application (P2A) SMS. It is anticipated that A2P could result in a significantly revenue increase for mobile operators as compared to P2P SMS here after.

Another possible way is, attractive commercial agreements between the cellular operators and content providers to provide attractive content through SMS. Many other innovative VAS over SMS are being explored WW to earn revenues from this 160 lettered capacity.

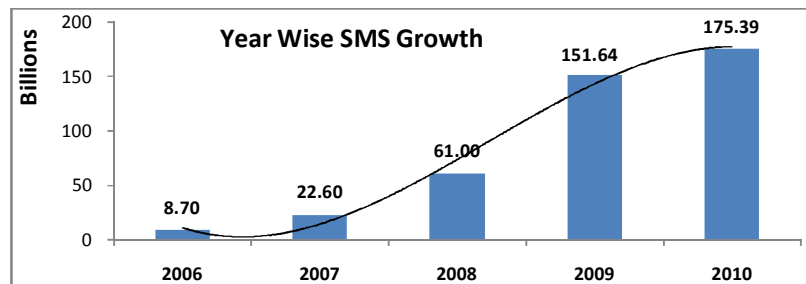


FIG A

2. Philippines Case study, the Texting Capital

Philippine is the acknowledged SMS capital of the world and was reported to be generating the highest proportion of non-voice revenues in the world during 2009. A glimpse over the SMS activities of Filipinos show that there are far more activities over SMS than just chatting or giving some message or information over the SMS. Some of the activities over SMS are:-

- The President sends instructions to members of his Cabinet and other subordinates via SMS.
- A poetry writing contest via SMS “to popularize and continue the tradition of the country’s oldest forms of poetry by using modern technology”.
- TV talent search contest allow viewers to vote for the winner using SMS.
- Farmers use SMS to find higher prices for their produce.
- All greet the occasions through SMS²

2.1 Text Games

The text games are some time called as text gambling in Philippines. Initially in around 2001, the mobile operators started the games by asking the subscriber few questions and on correct reply, subscriber was offered gifts in the form of free minutes etc. Later on this business was expanded from mobile companies to a mobile value-added content providers (M-VAS), who played MCQs (multiple choice questions) with subscribers on the platform/ network of CMOs.

SMS game developers enter into a revenue sharing scheme, where the network provider gets anywhere from 65-70% of the amount paid for every transaction.

The attraction of these text games is the prize money. This has led the state gaming agency—*Philippine Amusement and Gaming Corporation or PAGCOR*—to declare that these text games are forms of gambling and not simply sales promotion and because these are games of chance,

² <http://unpan1.un.org/intradoc/groups/public/documents/Other/UNPAN024834.pdf>

they fall under PAGCOR's regulatory supervision. Some text games are also developed for TV viewers

2.2 Smart Money

The SMART-Money-Card is a pre-paid re-loadable payment card linked through engaging the three service providing entities, i.e. to the SMART (cellphone operator), MasterCard (Financial service) electronic payment system and obviously the bank.

Cardholders simply load their SMART Money card with cash value by debiting their personal bank accounts through SMART's Mobile Banking Service (MBS) or over-the-counter loading at selected merchants. Once loaded, the SMART Money Card is then processed and accepted for payment transactions in any MasterCard affiliated merchant with Electronic Terminals, like any other debit card.

SMART Money solves the payments problem in m-commerce by leveraging on the pre-existing telecoms network and e-payment system (like MasterCard).

2.3 m-Government

An area of e-Government where the Philippines is arguably among the world leaders is, in m-Government. Half (50%) of the 26 Departments and Commissions of the national government that were surveyed by the Congressional Oversight Committee on e-Commerce have SMS-based Services.

These SMS-based services give citizens an easy and inexpensive way to bring their concerns to government. Citizens who used to send (snail) mail and telegrams to the President, now have a new channel to bring their concerns to the highest official of the land.

2.4 Battle Against Crime

SMS is also being used to encourage Filipinos to help in the battle against crime. The government, through the Department of Interior and Local Government (DILG), has a centralized emergency and crime reporting service called 'Text 117'.

2.5 Health

SMS is also deployed in public health service. During any epidemic of disease spread, the Department of Health (DOH) establishes Hotline for people who want to know more about the disease or send a report about it or to know the symptoms via SMS.

3. Pakistan's Case

3.1. Cost Analysis:

As per our study, the SMS traffic was exchanged at an average rate of 12.8 Paisa (Rs. 0.128) per SMS in the year 2010. The Rates of SMS have generally being reduced from the previous year.

In the previous year i.e. Y2009, the rate per SMS was calculated to be 27 Paisa (Rs. 0.27). The reduction of 47% is observed due to the fact that, in that year, SMS analysis were done on the bases of the average SMS cost for flat rate and bundled rate separately and this year its computed on the bases of minimum flat rate & bundled rate.

Due to an overall attractiveness of bundled rate, it is assumed that 80% of the SMS were sent using bundled rates.

Flat Rate: Flat Rate SMS is the SMS sent on advertised per SMS cost (non bundled). Few operators have reduced the flat SMS rates considerably. Almost 20% of the SMS traffic is estimated to be exchanged over flat rate. All the operators have offered different flat rates. Zong is offering the highest flat rate/SMS while the minimum flat rate is offered by Mobilink and Ufone.

Bundled SMS Rate: All cellular operators offered attractive SMS-bundle packages. Approximately 80% of the total SMS traffic is assumed to be exchanged over bundle packages as mentioned above.

Bundle packages were usually around 700 SMS/week/subscriber in Y2010, of which we assumed 700 SMS/Month/Subscriber being utilized, this averages out around 25 SMS/ Day /Subscriber.

It was deduced that, through bundled SMS package a subscriber is paying around Rs. 33.50/month (4.79 Paisa/SMS or Rs 0.0479/SMS).

International SMS Rate: Unlike, different calling rates for different countries across the globe, a flat rate is charged by the operator for all international SMSs, irrespective of the destination. The trends of International SMS seems to be on the increasing side and the rates/SMS on the decreasing trend. Mobilink and Ufone both offering the same minimum International SMS rates among all operators. The rest three CMOs are offering as much as doubled the rates of above two.

*According to these national and International rates above, the revenue for SMS-traffic is calculated to be approximately **Rs. 22.5 Billion**. The reported cellular non-voice-revenues for Y210 were 24.751 billion out of which 91% of revenues are computed to be from SMS.*

Analysis					
	INTERNATIONAL	NATIONAL		TOTAL	AVERAGE
Total SMS in 2010	Revenue from International SMS (Approx) Rs.	Revenue from SMS on Flat rate* (Approx) RS.	Revenue of SMS on bundled Rate* (Approx)	Total Revenue from SMS(Approx) in Rs.	Avg. Rate per SMS(Approx) in Rs.
175.4 Billion	1.5 Billion	14.6 Billion	6.66 Billion	22.5 Billion	12.8 Paisa

Table 3

3.2. SMS per Month

The highest number of SMS being generated in a month during 2010 were 16.2 billion SMS in the month of December, followed by August 2010. August and December were the months of Occasion in Pakistan.

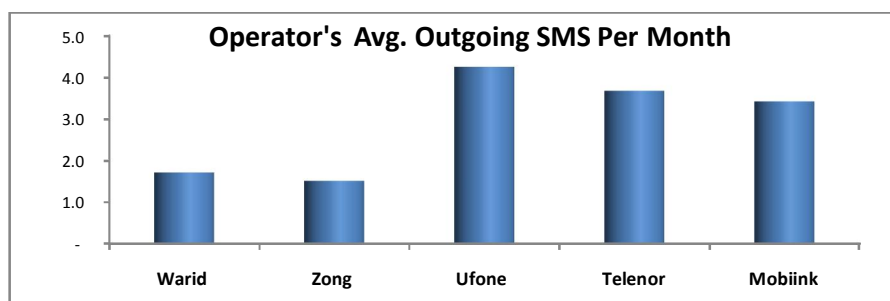


FIG 2

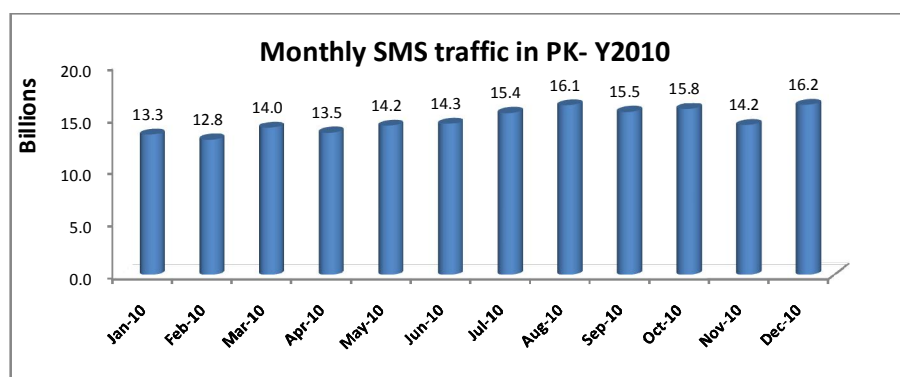


FIG 3

Traffic in February had been minimum because of 28 days in that month. This zigzag but eventually increasing trend, due to varying days in a month, is evident from the graph.

3.3. Cellular Subscribers

The subscriber base reached 102.78 Million by December 2010. Mobilink contributing the 30.94% of subscribers followed by Telenor at 24%. The subscribers during the same time previous year were less than 99 Million. The subscriber base had shown a growth of 5.1% in the FY 2009-10 as compared to previous year where it was 7%. This mobile penetration had been tremendous during 2005 – 2007, but now as the market is getting saturated so the growth trend line seems to flatten out.

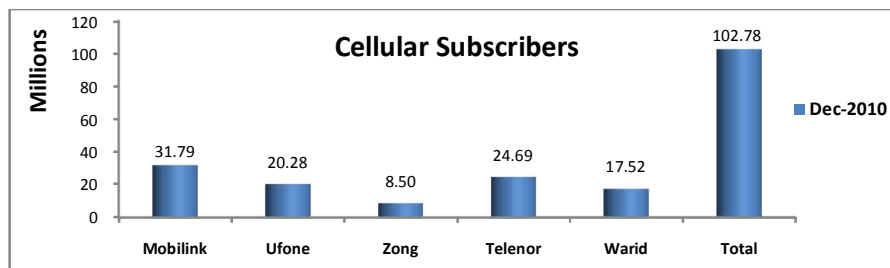


Fig 4

3.4. Inter Cellular Network Utilization for SMS

3.4.1. Ufone:

Ufone has generated the highest number of SMSs per month in Y2010, as shown in Fig2. It has been calculated to be generating 7SMS per Day/ Subscriber, highest among all; although the subscriber base of Ufone is less than Mobilink & Telenor. The average price per SMS of Ufone, in flat as well as bundled packages, were comparable with Mobilink whereas Telenor stood a bit higher during the past year.

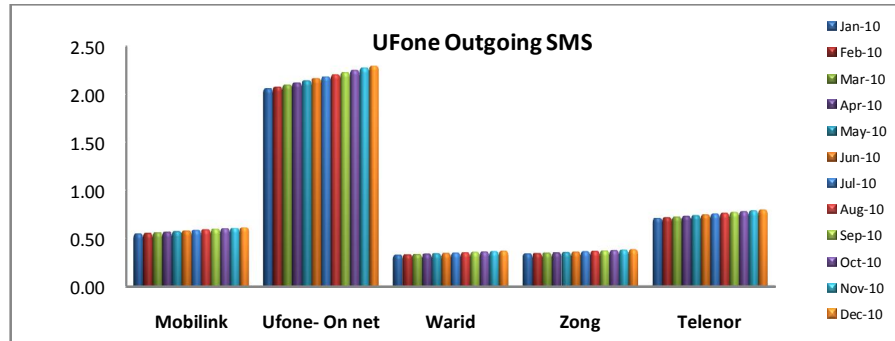


FIG 5

A very regular rise in SMS traffic shows some devised strategy of Ufone for the increment in SMS traffic.

3.4.2. Telenor:

Telenor, the second highest generator of SMS per-month in Y2010 as shown in Fig2

Telenor and Ufone pumped the highest number of SMS to each other, when compared with their peers, with Ufone out performing by sending twice the number. Warid sent least number of SMS to Telenor.

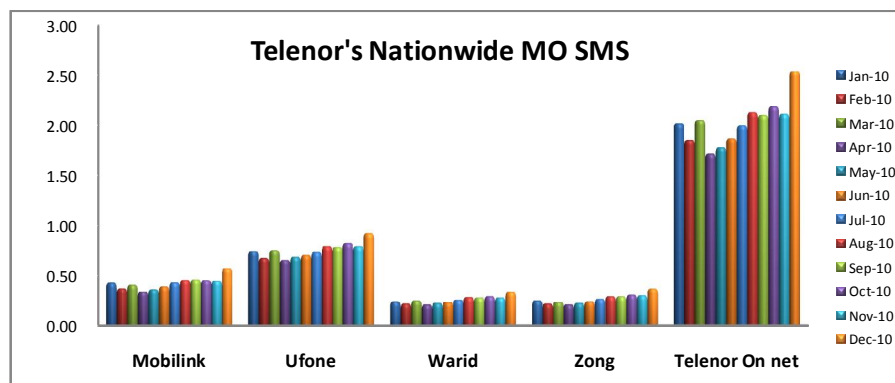


FIG 6. *MO=MOBILE ORIGINATED

3.4.3. Mobilink:

Mobilink has the largest subscriber base in the country and the SMS exchange is also high accordingly but relative value of 'SMS per day per Subscriber per operator' (SMS/ Day/ Subs/Operator) show that Mobilink stands at number four.

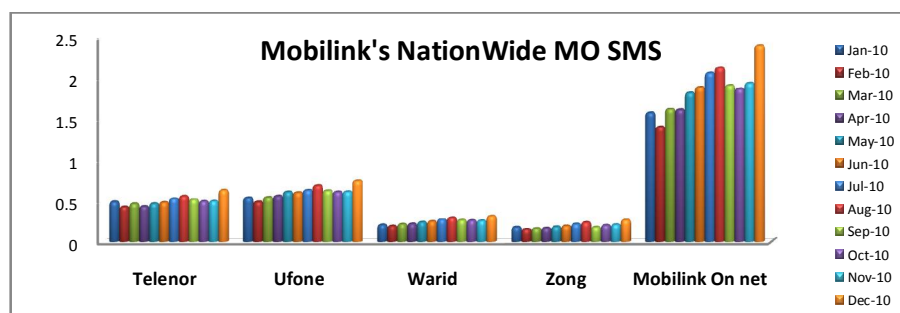


FIG 7

3.4.4. Zong:

Zong sent highest number of SMS to Ufone and minimum to Warid. Zong is offering a relatively high flat rate than all others.

Its bundle packages are better than others and it is observed from the ‘average value of SMS per day per subscriber per operator’ (SMS/Sub/Day/Operator), that Zong subscribers are generating the 2nd highest number of SMS per day i.e. after Ufone. Zong Subscriber generates around 6 SMS every day which is greater than rest of the operators except Ufone.

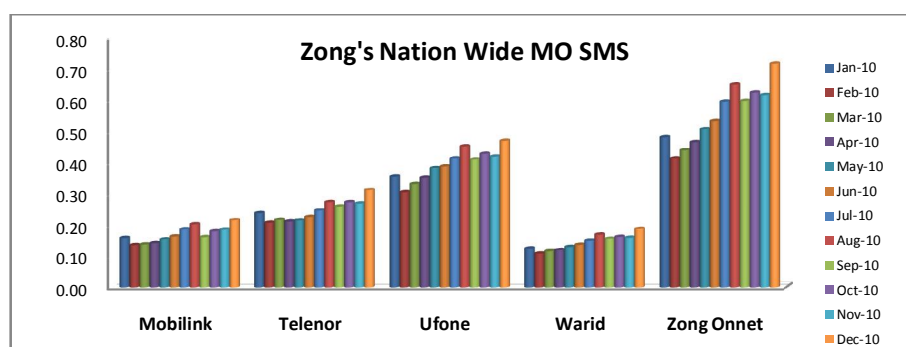


Fig 8

3.4.5. Warid:

Warid's SMS traffic fell in the month of November and December. This is the trend not seen in any other operator. Warid sent the highest number of SMS to Ufone. The subscriber base of Warid is more than that of Zong but the SMS/day/subscriber is less than or equal to half of Zong.

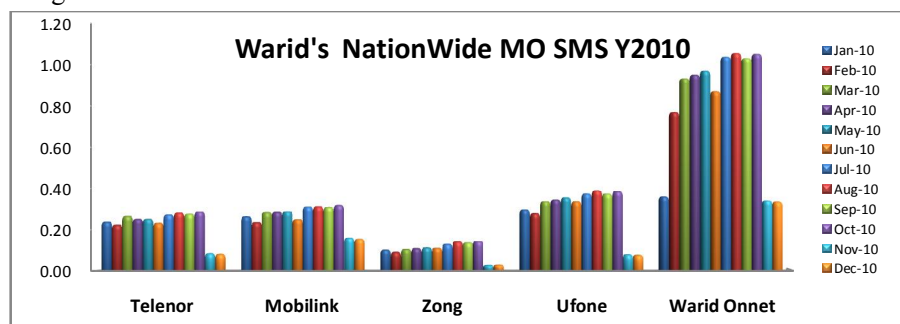


Fig 9

3.5. On-net SMS

On-net SMS are defined to be the SMS sent on the MSISDN (whether own or ported) of the same network. In 2010, Telenor sent highest number of On-net SMS followed by Mobilink & Ufone. Usually the operators offer low charges for On-net SMSs because there are no interconnect charges involved.

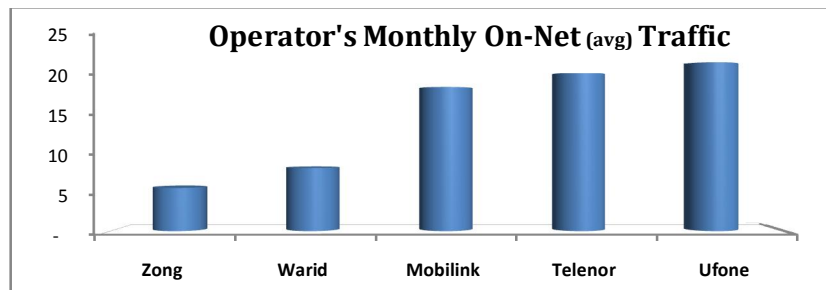


Fig 9

3.6. International SMS Traffic

Average number of SMS sent out of the country per month during the year 2010 were 32.04 Million. As visible from the graph below, M/S Ufone sends the most number of International SMS traffic. It sent almost twice more SMS than the operator originating the second highest number of International SMS.

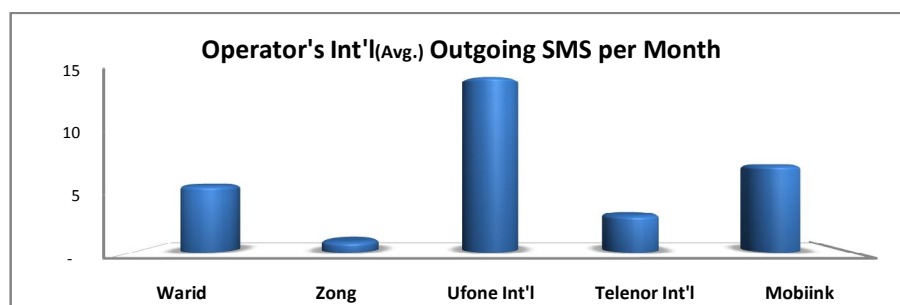


Fig 10

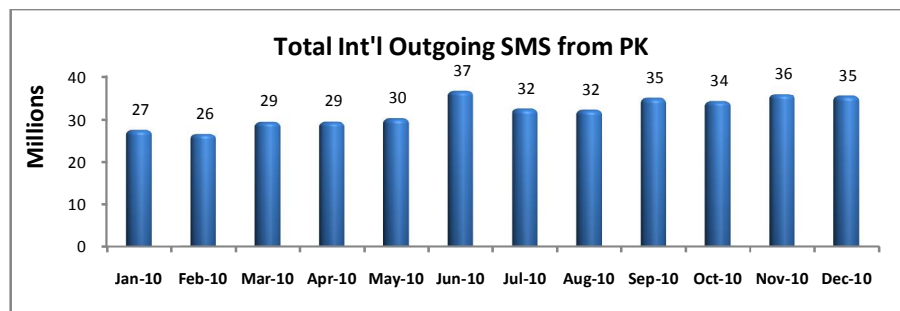


Fig 11

4. International evolution in SMS

4.1. Info 160

“According to the latest statistics, 77% (5.3 billion people) of the world’s population are mobile phone owners. What they own range from the most basic \$10 dollar phones to high-end smartphones.”

Info160 aims at making information free and accessible to all, especially people in developing countries where mobile phones have a high penetration rate but Internet speeds are still low and connectivity fees still not favourable to everyone.

This Info160 would be an SMS information service where subscribers could receive useful information for free like for example, breaking news, stock market, quotes etc according to the categories they subscribe to.

Each SMS that a user would receive shall be appended by unobtrusive short location based adverts that are paid for by advertisers. Such an advert can be something like a location sensitive information e.g. an offer at the supermarket next door. Advertising will also start at a low enough rate to be affordable to masses with low income levels.³ According to ITU’s release on October 20, 2011, “The advertising rates may start at \$1 for 50 ad views. It will also have an open API that people can build their own applications on top of.”⁴

4.2. Application-to-person (A2P) and P2A

Application-to-person (A2P) SMS is a part of mobile value added services (VAS). It provides mobile content to stimulate the subscribers and acts as a gateway to reach mobile subscribers in minimum time.

P2A (person-to-application) SMS, inverse of A2P, is the process by which a text message is produced from a mobile user and sent to an application. This means that the consumer starts the mobile interaction with a Value-Added-Service Application or Assistance, sending an inbound SMS to an application.

Typical use of A2P include general alerting and update messages such as banking updates, flight alerts, mobile check-in and boarding passes, mobile ads, mobile event ticketing, passwords are few among many others. Examples of P2A messaging include media voting & competitions, opt-in & subscriptions and text-to-win campaigns.

According to new report published by Juniper Research on May 4, 2011, the revenues from A2P will exceed 40Bn by Y2016 and will overtake the P2P SMS revenues by then.

The business market of A2P and P2A must be promoted and expanded in Pakistan in order to keep the SMS-revenues growing and to bring innovation for the users.

³ <http://world2011.itu.int/yourideas/selected-info160-free-sms-information-service-and-location-based-advertising>

⁴ <http://world2011.us/info160-bridging-the-information-gap/>

5. Conclusion:

- 5.1. SMS has certainly become the most popular mode of communication in our country. Masses of all types are using text for instant information exchange. Urdu script SMS has facilitated for the bottom of the pyramid masses, who doesn't know English script. And due to its affordable-to-all-and-always characteristic, it will always have a volume to grow unless the GDP grows to such that it let everyone afford as many voice calls as the number of SMS they send.
- 5.2. Globally, a trend of VAS over SMS is being observed, especially in developing and underdeveloped countries. For example, Smart Money payments, m-Government, m-Health etc, all these value added services over SMS require an element of higher reliability of receipt. Delivery reports adds reliability, and many services cannot be possible without reliability of receipt. So there must be a feature of delivery reports and other delivery assurance mechanisms be introduced by our operators. SMS interworking between the operators for confirmation of Off-Net SMS shall also help in increased reliability for services.
- 5.3. An overall volume of SMS has increased by 15 % from previous year. SMS cost has been reduced, the flat-rate varied for Rs.0.24 to Rs. 0.90 against an average SMS rate of Rs.1 the previous year. Similar is the case with bundled rates.
- 5.4. Ufone has highest international SMS exchange count as compared to all others. More attractive packages may be offered on international SMS, as done on national SMS, in order to increase international traffic volumes.
- 5.5. Nationwide, Ufone has generated the maximum number of SMSs per month, although the subscriber base of Ufone is less than Mobilink & Telenor.
- 5.6. As in Philippine and many other countries of the world, A2P SMS may be focused upon. Analyses show that it has much potential and revenues than P2P SMS had. The applications of A2P are unlimited and could be attractive for the masses. World is moving further towards info160 in parallel to A2P.

6. Recommendations:

- 6.1. Info160 service must be focused for our market.
- 6.2. A2P & P2A must flourish in order to increase the revenues from SMS.
- 6.3. A2P & P2A SMS must be counted and maintained separately from P2P SMSs.
- 6.4. Location Based services must be introduced ASAP.
- 6.5. SMS delivery reliability must be enhanced in order to provide more VAS over SMS.
- 6.6. International SMS traffic must be enhanced through some attractive packages.
- 6.7. Cellular Operators should plan to provide detailed SMS-Data for Y2011 to 'SMS analysis and Report' team by February 2012, so that the Y2012 Report may be out by June 2012.

Note: The draft report is available at PTA website. The feedback and comments may be provided electronically at humaabid@pta.gov.pk.