

Price Comparisons of MTN, Globacom, Etizalat and Airtel Data Bundle Services in Nigeria with Foreign Jurisdictions

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Abstract—This study encompasses internet Communications services price comparison study. The GSM operators covered by the study includes: Airtel, Etisalat, Globalcom and MTN. These were categorised under mobile wireless/Code Division Multiple Access (2G,3G,3.75G,4G) services. This aim is to assess price, usage and beneficial Comparisons among communication companies along with their market competition in Nigerian economy and to evaluate the factors that influence the decisions of Nigerian telecommunication commission on price changes. The number of internet subscribers were collated using Nigeria Communication commission database. Comparism of active, inactive and installed capacity was deduced using multiple bar chart and international currency converter for efficient comparism. The study, using trend analysis, examined the effects of the competition on availability, quality and cost of telecommunications services in Nigeria. The study found that: teledensity increased from 78.21 to 86.62 implying a high internet penetration; there was an increase in range of services but the quality of which desired much improvement; while cost of internet connection fell by as much as 9%, tariffs only fell by 10% compared to 2012 service. This strategy will increase the quality of the services offered, and possibly at cheaper price. The study concluded that more regulatory measures and launching of another communication satellite by the Nigerian Communications Commission (NCC) are needed to terminate perceived dominance, enhance competition, improve service quality and as well bring down tariffs to meet international service standard.

Keywords— Nigeria Communications Commission; Internet data bundles; tarrif; Wireless mobile internet; Monthly data plans

I. INTRODUCTION

In Nigeria, provision of public service is grossly inadequate and poor in the early 90's. Necessary telecommunication services, as public service, needed for

meaningful investment are lacking and, where financial commitments are very expensive. The situation is worse in Nigeria (Soludo, 1998) with its teeming population. Prior to the introduction and adoption of GSM services in Nigeria, it costs about US\$10 to fax one page message to overseas like America, Canada and United Kingdom. About US\$8 to do the same task locally when the wirelines were functioning properly. The number of installed telephones, masts for internet and satellite discs was grossly inadequate to equate demands. This phenomenon was responsible for poor call completion rates, subscriber dissatisfaction, and hence, loss of revenue.

Past studies on the Nigerian economy have bothered on the challenges and roles of ICTs (Ndukwe, 2003, 2004; Igwe, 2005). Thus, this paper, specifically, compares pricing of data bundle among telecommunication service providers in relation to the emerging growth effects of ICTs on Nigerian economy; particularly since data bundle for Laptop, Handset public computer are falling in term of price with respect to amount of byte consumption within a period of speculated time.

In relation to foreign justification according to NYT, 2013 has seen a massive uptick in the amount of data that mobile internet users in the US consumption per month. A recently published report shows that the amount of data consumption by the average person in the US via mobile connections has almost doubled in 2013. Last year, the average US web user used up to 690 MB per month.

This year (2014), the average mobile web user in the US consumed about 1.2GB of mobile data each month. The figures are based on the submission of an industry analyst Chetan Sharma, a consultant for wireless carriers. The amount of mobile data consumed by individual globally is much smaller at 240MB per month. That is an increase from the 140MB per month in the world average analysis last year (2013).

Some of the massive growth in mobile data consumption in the US is attributed to two factors. Those two factors include significantly faster mobile networks in many parts of the country and smartphones with larger screens. ABI Research predicts that by the end of 2013, there will be about 1.4 billion smartphones in use around the

world. Cisco predicts that by 2016 internet traffic from mobile devices will exceed traffic generated by wired devices like desktop computers. No wonder, many consumers are replacing computers with smartphones and tablets [2].

A. Wireless Broadband Accessibility

The broadband access has been popular in Nigeria. The access to the broadband was confined to the usage of LAN. This made many internet users in Nigeria to face difficulties in accessing the internet facilities outside the office or home. But with the use of new and latest technologies, the wireless broadband is accessible in Nigeria. This has made the access to the internet very simple and easy outside the offices and homes.

As in previous years, the consumer telecom services covered in this year's study include the following stand-alone and bundled services:

- i) wireline,
- ii) mobile wireless,
- iii) broadband Internet access (using wireline technology),
- iv) mobile Internet access (using 2G or higher wireless technology), and
- v) bundled combinations of the first three services and basic digital TV.

In terms of layout of this report, the next section provides a brief review of the methodology used to measure and compare bundles service price, and describes all changes made in the year's study relative to previous year's study. Nigeria and international price comparisons results in table 1 for mobile wireless, mobile Internet access and bundles services is used to determine economic disparity in disposition of Nigeria GSM internet operators services exploitation. A detailed summary of all services and bundles included in the study is provided in Table 4. Detailed historical summary results for the period December 2012 to June 2013 are provided in Table 2 and Table 3.

B. Bundled Services

Three bundle services are considered in the study. Bundle 1 includes Globacom, broadband and mobile wireless; Bundle 2 includes MTN, broadband Internet and mobile wireless and Bundle 3 includes Airtel, broadband Internet and mobile wireless; Bundle 4 includes MTN, broadband Internet and mobile wireless services.

This year 2014, GSM internet providers release more data bundles for various devices like Android, Blackberry, Galaxy tab, as a result of rivalry and competitions. Over the course of the last five years, Bundle 1 have been remained relatively unstable due to end-users demands and provisions of wireless service which include broadband services for public cybercafes and corporate bodies.

C. International Comparison

Nigeria bundled service rates increase in the middle of the group of surveyed countries. While differences across countries in the underlying services included in the bundles (especially mobile internet services) can make bundled service comparisons somewhat tedious, it is noteworthy that Nigeria bundled service rates continue to compare very favourably to those in the U.S.A., Canada, France and UK where service pricing and provisioning are similar to those in Nigeria GSM internet providers.

D. Benefit of GSM Networks

Imagine traveling to a remote place where you can gain access to internet service. Starcomms or multilinks may not be available in that village, but with the GSM services like Glo, MTN, Airtel, and Etisalat users will still be able to access internet with average signal strength with 3G/2G technology. So all investors easily transact business with easy access to internet service over Laptops and phones (Androids, black berry etc).

All data plans from the four major GSM network operators in Nigeria were tested and verified respectively(Glo, Airtel, MTN and Etisalat). Airtel and Etisalat have always been top contenders for the best tariff quality of internet service in terms of cost and quality of data bundle slotted for limited period followed by Globacom with strong signal strength, high cost of data plans but the data plans exhausted with high rate. Any user that subscribed to an MTN data plan, get overall advantage over other interms of usable time frames that occurs in the mid-night and low tariff.

II. METHODOLOGY

A. Nigeria Price Data

The Nigeria price data included in the study has been collected from a variety of telecom service providers such as Globacom, MTN, Aitel, and Etisalat. Prices offered by reseller (Cybercafe) are also taken into account. For mobile services. In terms of geographic coverage, price data is flat rates in all 36 states especially usability in mega cities like Lagos, Abuja and others, take advantage of high bandwidth of 3G, 3.75G technology. Table 1 provides a list of the service providers data acquired from Nigeria communications commission (NCC) in the year 2013. No changes have been made to data bundles GSM operators for this year 2014 study relative to last year.

B. Service bundle Design

This study relies on the service bundles, service price comparison methodology described in details in GSM operator internet products and services. Methodology report states that regular internet services modifications are usually done by each GSM operator as a result of rivalry amongst competitors. Proper examination has been made to carry over into this year 2014 study. All additional changes in their services will effect soonest this year 2014 as a result of products competition.

Nigeria Communications Commission examined alternative Approaches for Conducting population of internet subscribers on all GSM internet service providers and price Comparison of data bundles, Wireless and Internet Services in justification with Foreign Jurisdiction. The price comparison methodology used in this study is based on a "GSM operators internet service data bundles" approach where separate service data bundles are defined on the basis of service usage levels, service benefits, economic factor, accessibility and tariff rate. In Mobile wireless services, there are three separate service modules that are defined as follow:

i. **Level 1:** entry level or low-volume internet service usage

Speed: "Level 1" Internet service with projected download speed of up to **3.0 Mbps** (targeted speed in the upper end of the range).
Data usage per month: 10-500MB

ii. **Level 2:** average or mid-level internet service usage

Speed: "average" (Nigeria) high-speed Internet service with designated download speed of **4.0 to 15 Mbps** (targeted speed in the upper end of the range).¹⁸ *Data usage per month: 1 - 3 GB*

iii. **Level 3:** premium level or high-volume internet service usage

Speed: high-speed Internet service with speculated download speed of **16 to 40 Mbps** (targeted speed in the upper end of the range).

Data usage per month: 4 - 20GB.

This study captured very-high speed broadband Internet services to improve cybercafe activities and eradication of C-Band, KU Band usage due to high cost of installations and subscription of which are now commonly available in Nigeria for study. In the case of broadband Internet services, only three service technology are included in the study. Each of the service bundle has been designed to reflect typical low, mid/average and high-volume Nigeria telecom service consumption rates by individual and corporate users.

III. RESULTS

A total of 32,513,261 Nigerians are accessing the Internet through telecommunication networks as revealed by a report obtained by *SUNDAY PUNCH* on Friday May 12 2013 by Everest Ameenule , Abuja. This means that out of the estimated population of 45 million Nigerians that have access to the Internet, 72.25 per cent are dependent on telecommunications networks. This leaves a total of 12,486,739 users or 27.75 per cent depending on other smaller Internet Service Providers that deploy various technologies including Very Small Aperture Terminals.

Currency converter is employed in the extraction of data pricing in local domain of jurisdictions as shown on Table 1. Nigeria bundle price comes second in term of high cost implication after Canada pricing plan but most canada price plan designs are unlimited.

Table 1: Summary of International Price Comparisons for Data Bundle Prices

Plans	Duration	Nigeria	Canada	France	UK	U.S.A.
500MB			\$43.50	N/A	\$6.79	\$20
1.0GB	1Week	\$18.36	\$48.50	\$14.20	N/A	
1.5GB	1month	\$24.48	N/A	\$20.28	N/A	
2.0GB	1month	N/A	N/A	\$20.28	\$10.18	
2.5GB	1month	N/A	\$85.00	N/A	\$13.57	\$30
3.0GB	1month	\$39.79	\$78.50	N/A	16.29	N/A
3.5GB	1month	N/A	N/A	\$30.43	N/A	
4.5GB	1month	N/A	N/A	\$34.98	\$23.17	\$40
5.0GB		N/A	N/A	N/A	N/A	N/A
6.5GB	1month	\$48.97	N/A	\$44.65	N/A	\$50
8.5GB	1month	N/A	N/A	N/A	\$62.01	\$60
10GB	1month	N/A	N/A	\$50.71	N/A	N/A
10.5GB		\$61.21	N/A	N/A	N/A	\$70
20GB	3Months	\$110.18	N/A	\$121.70	N/A	N/A

Source: GSM Nigeria, T-Mobile (US, Canada, UK) and currency converter

Table 2: QUARTERLY SUMMARY OF TELECOMMUNICATIONS SUBSCRIBERS IN NIGERIA (Dec '12 – Sept '13)

Operators	Dec 2012	March 2013	June 2013	Sep. 2013	Q4-Q1	Q1-Q2	Q2-Q3
MTN Nigeria Communication	47,440,991	51,294,654	55,238,430	55,596,025	8.12	7.69	0.65
Globacom Limited	24,124,716	23,833,796	25,019,862	24,129,183	-1.21	4.98	(3.56)
Airtel	23,092,195	23,670,986	21,591,904	22,726,698	2.51	-8.78	5.26
Etisalat	4,455,290	4,932,188	5,170,786	5,540,676			

Source: Nigeria Communications commission (NCC)

Note that only the incumbents primary name GSM mobile services are taken into account for this study, not their respective flanker brand mobile services (such as Rainbonet, Starcomms Limited, Multilinks Telkom etc).

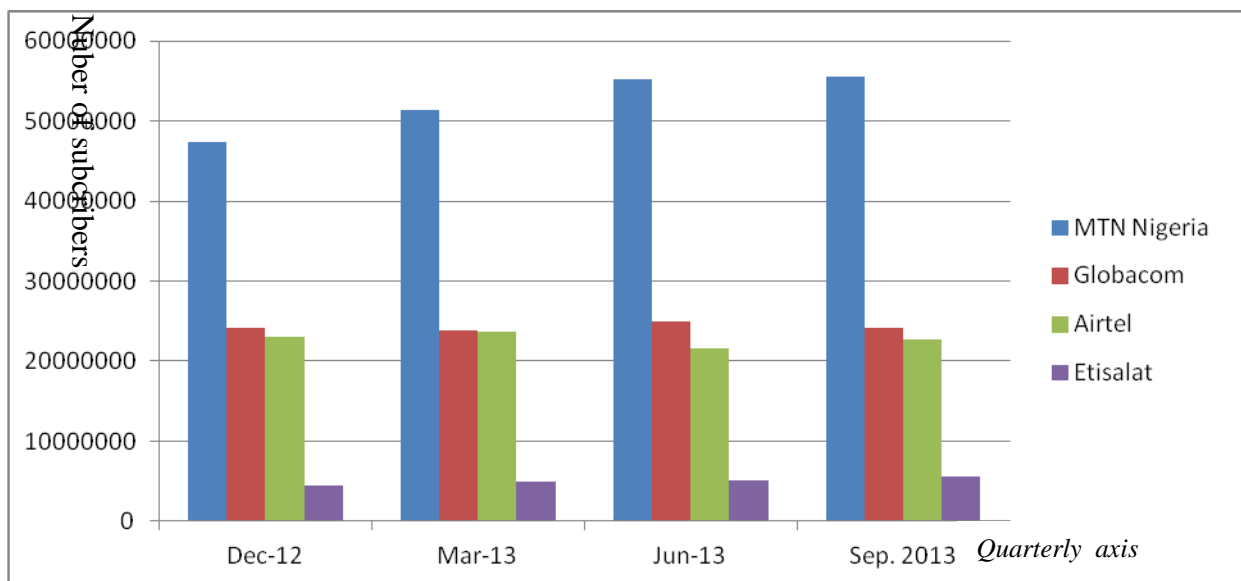


Fig 1: QUARTERLY SUMMARY OF TELECOMMUNICATIONS SUBSCRIBERS IN NIGERIA (Dec '12 – Sept '13)

Table 3: Monthly Subscriber Data (July 2012 –Sept 2013)

OPERATOR	Sept '13	Aug '13	Jul '13	Jun '13	May '13	May '13	Apr '13	Mar '13	Feb '13	Jan '13	Dec '12	Nov '12	Oct '12	
Connected Lines	Mobile (GSM)	158,239,230	150,891,051	153,665,051	164,642,742	150,888,100	150,888,100	148,161,358	145,233,707	143,327,286	138,081,740	135,253,599	134,354,814	121,660,815
	Mobile (CDMA)	11,307,307	11,344,675	11,462,206	14,250,514	14,217,718	14,217,718	14,248,485	14,248,537	14,113,574	14,041,460	14,041,464	14,005,220	13,965,730
	Fixed	2,414,988	2,362,487	2,370,289	2,452,697	2,450,260	2,450,260	2,448,538	2,446,521	2,438,435	2,438,824	2,419,587	2,405,688	2,403,092
	Total	171,961,525	164,598,213	167,497,931	181,345,953	167,556,078	167,556,078	164,892,379	161,928,765	159,879,295	154,562,024	151,714,650	150,765,722	138,029,637
Active Lines	Mobile (GSM)	118,470,236	109,846,288	111,866,933	117,412,363	117,765,609	117,765,609	116,325,790	114,172,440	113,399,984	111,195,207	109,829,223	106,869,544	105,913,889
	Mobile (CDMA)	2,438,590	2,440,934	2,519,602	2,567,177	2,593,253	2,593,253	2,633,936	2,703,604	2,790,989	2,890,955	2,948,562	3,045,688	3,131,349
	Fixed	382,392	375,217	373,871	382,678	389,892	389,892	396,939	405,625	405,625	410,664	406,222	418,166	432,899
	Total	121,271,218	112,271,439	114,760,406	120,362,218	120,748,754	120,748,754	119,356,665	117,281,669	116,601,637	114,492,384	113,195,951	110,348,131	109,499,882
Installed Capacity	Mobile (GSM)	210,847,482	210,010,140	204,242,114	204,242,114	207,705,431	207,705,431	207,683,434	207,653,213	196,879,408	196,849,070	182,065,415	182,052,805	189,488,035
	Mobile (CDMA)	18,400,000	18,400,000	18,400,000	18,400,000	18,400,000	18,400,000	18,400,000	18,400,000	18,400,000	18,400,000	18,400,000	18,400,000	18,400,000
	Fixed	11,384,159	11,431,677	11,431,677	11,384,677	11,384,677	11,384,677	11,364,677	11,362,677	11,362,677	11,362,677	11,342,677	11,293,317	11,293,317
	Total	240,679,111	239,842,017	234,073,791	237,488,111	237,490,108	237,490,108	237,488,111	237,397,890	226,642,085	226,611,747	211,808,092	211,746,122	219,181,352
Teledensity	86.62	80.47	81.97	85.25	86.25	86.25	85.25	83.77	83.29	81.78	80.85	78.82	78.21	

Source: Nigeria Communication commission (NCC)

Q1 – Q2 is considered for quarterly subscription as shown on table 2 above and the GSM operators captures are: MTN, Globacom, Etisalat and Airtel been the ultimate and giant GSM operators with highest coverage in 36 states and accessibility in mega cities, town and villages.

Nigeria Communication commission acquired internet data bundles and make significant traffics impacts on three categories data subscribers from october 2012 to september 2013. Connected lines indicate the available GSM lines on the global cells and the active lines describes usage of lines depending on products and services demanded by subscribers. Also, Installed capacity measures signals coverages areas in Nigeria.

Table 4 Nigeria GSM Internet Service Providers for databundles comparism

User Levels	Plans	Duration	MTN	GLO	AIRTEL	ETISALAT
Level 1	10MB	24hours	N100	N100	N100	N100
	25MB	7days	N400		N400	
	50MB	7days				N500
	100MB		N1000			N1000
	150MB	24hours	N500		N500	
	200MB	30days		N1000		
	260MB	30days			1000	
Level 2	500MB	30days				N3000
	1.0GB	30days		N3000	N3000	
	1.5GB	30days				N4000
	1.6GB	30days		N2000		
Level 3	3.0GB	30days	N6000	N5000	N5000	N6500
	4GB	300hours		15000		
	5GB	30days			N5000	
	6GB	30days		N7500		N8000
	10GB	30days		N10000	N15000	
	15GB	30days		N15000		
	20GB	30days		18,000		

Source: Web Trend Nigeria Posted on Sep 1, 2010 in News

Note: Update were made from MTN, Globalcom, Etisalat and airtel web portal for comparism

Table 5: CDMA/EVDO Service providers

Time	Multilinks	Starcomms	Zoom
50hrs	N3,400; 30days		N5000; 14days
100hrs	N5,600; 60days	N6500; Unlimited data	
250hrs	N9,900; 90days	N15000; 90days Unlimited	
24hrs for 30days	N9,000; 6Gig Cap	N15950; Unlimited	N10,000; Unlimited data
Business Hours	N6,000; 8am-8pm 6Gig	N7000; 9am- 9pm; Unlimited Data	N7000; 8am- 6pm;30days
Night Browsing	N3,500; 12am-8am 20Gig	N6000; 11pm-7am; Unlimited Data	N5000; 11pm- 6am; 30days

Source: Web Trend Nigeria Posted on Sep 1, 2010 in News

The determinant factor has largely been emphasis on the data-cap introduced by most of the service providers; most users (top level-end users) are not very comfortable with low bandwidth irrespective of uplink/downlink configured with most services in accordance to data limits

The most beneficiary of them all is the ones offered by Airtel and Etisalat; Dataplan for level 1 internet users. Many preferred Etisalat services based on reliability, stability and cost effective. Globacom and Etisalat has high end-user internet fast connectivity. Etisalat is a big minus compared to signal coverage in all states but excellent and effective in Lagos.

According to findings and observation Multilinks have data limits on their services. Their connection is fast and well priced compared to other internet service providers but the data cap is highly expensive. Starcomms is stable, fast and accessible with high tariff but exorbitant pricing discouraged end users despite its poor signal coverage outside Lagos and Ibadan mega cities.

For Zoom,(hope not in vain) The chances is slim for zoom internet service to commence transmission from the current deadlock. Zoom internet service was established in 2006, best as at that time and quite a number of users embraced their network thereafter, the problem of scaling the service occurs. Zoom disappointed end-users for every installation requirement on system, restrictions of 75% software installation was mandated to all users to visit head office for technical support for installation and configuration. Due to rigidity and complexity on internet service, users always visit Zoom office to obtain internet card (which is different from the normal call cards unlike Starcomms) to recharge/load on network device. Apparently they lost 99.99% customers to competitors and their customer relation is weak.

Internet access remains the bedrock of any successful internet business, for now, we still have what is called “shadow broadband internet access” in Nigeria. The understanding is that most Nigerians try to get the best, affordable, and fast internet service in Nigeria. The highlighted below prices of internet subscriptions in Nigeria is in two segments; 1st compares the ones offered by telecom operators (GSM) and then CDMA telecom operators. These services are targeted at small scale business to personal internet needs (comparison of corporate internet services).

According to findings telecom internet service provider was tested virtually all of them and categorically, they work effectively for basic internet needs. Location is also a pointer to whether end-user will get best coverage offered by these firms. In most locations like cities where there are 3G in most cities and 4G in mega cities (State Capital), most times HSDPA and EVDO signals, these are real broadband (in Nigerian context).

Table 6: Data Bundles

Prepaid Bundles	Validity Period	Bundle Price in NGN	Out-of-Bundle Tariff
PPU (Pay-Per-Use)	Not applicable	Not applicable	NGN 3,100 per GB
1GB	30 days	NGN 1,800	
3GB	30 days	NGN 4,000	3GB
10GB	30 days	NGN 10,000	10GB
20GB	30 days	NGN 19,000	20GB
50GB	30 days	NGN 45,000	50GB
Wi-Fi Starter Pack		NGN 31,000	One Wi-Fi router + one SIM with 10GB free data loaded at activation

MiFi Starter Pack		NGN 16,000	One MiFi router + one SIM with 5GB free data loaded at activation
Dongle Starter Pack		NGN 9,000	One dongle + one SIM with 3GB free data loaded at activation

Table 7: Summary of Nigeria GSM internet service providers

Operators	MTN	Etisalat	Globacom	Airtel
Speed	High	Highest	Average	Below Average
Cost	High	High	Highest	Below Average
Coverage	Highest	Below Average	High	Average

According to findings on most recognised GSM internet service providers in Nigeria, The highest result shows the best of all, which is followed by high, which stand second best , average indicates not high, not low interns of services, and the below average justify the poor performance.

IV. DISCUSSION

Statistics provided by the Nigerian Communications Commission showed that as at September 2013; 11,307,307 connected lines Internet subscribers depended on Global System for Mobile Communications networks while 2,438,590 Internet users depended on Code Division Multiple Access networks. Accordng to this research, among GSM subscribers, MTN Nigeria Communications Limited had the biggest proportion of Internet users 47,440,991 or 0.65 to 8.12 per cent of the total number of Internet users that depend on GSM networks.

The second largest network was global communication, with 24,124,716 or -1.21 to 3.56 per cent of the GSM Internet users. Airtel had a total of 23,092,195 or 2.51 to 5.26 per cent. Among the CDMA operators, Multilinks had unlimited data plan at cost rate N9000 (6GB); Starcomms had data plan at cost rate 15,950 (6GB) unlimited while Zoom had N7000 respectively, all valid for 30days.

The statistics also reflected the continued dwindling fortunes of CDMA operators. While some of the GSM subscribers grew their Internet users over a period of time, only MTN grew the number of its Internet subscribers

among CDMA operators. As at June 30, 2012, Airtel had 3.2 million Internet users and MTN had 16,135,672. Glo had 1,014,166 while Etisalat had 5,031,019.

Several reasons account for the increasing dependence of Internet users in the country on mobile telecommunications networks. One of the reasons is the near absence of fixed networks that carry data. For those service providers for corporate bodies where satellite disc equipment are required, Customer Premise Equipment cost a minimum of about N150, 000. They also charge a monthly subscription that ranges from N35,00 to N300, 000 depending on type of server acquired. The minimum dedicated server cost is N350,000 according to field investigation. Mostly, they serve corporate clients and cybercafé operators.

On the other hand, the entry cost for individual Internet subscribers that depend on mobile telecommunications networks can be as low as N1000 (Naira) for USB connectors that are just plugged to laptops and desktops, according to the report.

The geometric increasing popularity of smartphones such as Galaxy Tabs, Blackberry, Androids and tablets also means that Internet users do not necessarily need a computer or any other equipment (apart from their phones and subscription) to connect to the Internet. Despite the increasing penetration of Internet in the country, rural dwellers are less privileged than their counterparts in urban communities in terms of 3G and 4G signal strength.

The International Telecommunications Union recently reported that there were 2.75 billion Internet users in the world by the end of March. On regional basis, there are 140 million users in Africa; 141 million users in Arab States; 1.27 billion in Asia and the Pacific; Commonwealth of Independent States, 145m; Europe, 467 million users and the Americas, 582 million users.

Internet World Statistics reports that the total Internet users present a gender divide that is more evident in the less developed countries where more men use the Internet compared to women. In the developed world, there are only two per cent fewer women than men using the Internet. In the developing world, however, 16 per cent fewer women use the internet than men.

With findings, Internet connection in Nigeria is tensely weak compared with developed country like US, UK, Canada, China. Most internet service came with unlimited broadband ie. sky services for just 10 pounds[3].

V. CONCLUSIONS

1. Customers making use of the service by purchasing bundles on either prepay or pay as you go in Nigeria while most data bundle plans offer by overseas GSM countries design were unlimited with validity range from 1-6months.
2. The monetary value of airtime paid for and loaded by the customer is higher compared with services offer at oversea country like USA, UK and France therefore it appears in the customer's active data bundle account expressed in bytes and is valid for limited period and no carryover data outside validation period.
3. Data bundles are valid for 30 days. Unused bundles cannot be carried forward after expiry of the validity period therefore urges all users to exhaust data bundle before the expire date (Web trends Nigeria Posted on Sep 1, 2010 in News)

VI. RECOMMENDATION

The bone of contention has largely been the data-cap introduced by most of the service providers; most people (high-end users) are not very comfortable with that. Despite the fastness of 3G, 3.75G and 4G services in major cities; most average users usually put off by the data limits

Most telecommunications service providers were good for mobile internet access. The most reasonable of them all is the ones offered by Airtel mobile internet and mobile wireless service was tested at different locations and it has economic advantages like high data bundle plans with attractive bundle bonuses and low tariff advantage over others which make uncompromising benefits as a result of low cost internet data bundles. preferably Etisalat is stable and fast (high bandwidth than Airtel) but the data plans are on the high side compared to Airtel.

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