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An analysis of Mobile Technology in West Africa

The Case Of Nigeria, Ghana and Cote D'Ivoire

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Background

Over the past two decades the mobile industry in West Africa has grown from a government controlled space to become a huge market fueling economic growth and technological innovation. Mobile network operators are now heavily competing for the millions of African consumers looking to connect with each other in an easy and affordable manner. Proponents to this growth include The World Bank's investment of \$50M USD in ICT infrastructure development and capacity building for Nigeria; as well as a fiber optic submarine West African Cable System (WACS) slated to dramatically increase broadband capacity for the region. According to analysts, WACS undersea cable is particularly expected to bolster the continent's capacity for service delivery and infrastructure. Indeed, the mobile telecommunications industry has positioned itself as a shining light for West Africa's development.

According to industry estimates, West Africa holds

188M mobile subscribers, nearly 30% of Africa's total mobile market share.

Nigeria represents the largest share with over 95M subscribers with Ghana and Cote d'Ivoire representing the next two largest markets at 21M and 17M respectively. The entire West Africa region has witnessed tremendous growth with an average growth rate of 9% per quarter.

Predicted to reach more than 310M subscribers by 2017,

West Africa's mobile ecosystem is also supported by the explosive economic growth of many of its smaller countries like Mali, Liberia, and Niger Republic.

Regulating and Liberating the Mobile Industry

For the region, the Economic Community of West African States (ECOWAS) established the West African Telecommunications Regulators Assembly (WATRA) in 2002 to advise on the liberalization of services and the development of modern legal and regulatory structures for the telecommunications industry. Comprised of independent National Regulatory Authorities and departments for regulation of telecommunications services for ECOWAS member states and Mauritania, WATRA seeks to boost investment and the confidence of investors in the industry as well as contributing to the development of skills, competencies, and capabilities among local communities in this emerging sector.

With the largest mobile market in West Africa, Nigeria has led the region across the board in ICT development. Between 2001 and 2011, the sector attracted over \$25B USD in local and foreign investment. The government further, has chosen to operate only the fixed line subsector while increasing its role as regulator of the industry. The govern-

ment of Ghana has also been an instrumental player in encouraging fairness, openness, and competition in the sector. After the liberalization of trading laws and the removal of foreign exchange control, the Investment Promotion Act of 1995 paved the way for privatization resulting in a massive inflow of capital into the sector. The partial privatization of Ghana Telecom and Zain (now, Airtel) further ushered in the liberalization of the telecommunications sector.

The liberation of the market has spurred increased competition and price wars among private companies bringing higher subscription rates and enhanced choice of mobile services to the millions of Nigerian consumers. Mobile operators have taken the liberalization of the industry to quickly expand their presence and introduce innovative services into the market.

The Growing Mobile Industry in West Africa

When Africa crossed the 500M mobile phones mark in November 2010, Nigeria was leading the way with more than half of the registered mobile phone lines. The following factors have collectively resulted in a robust telecommunications industry:

- Government regulators improving their monitoring of the industry;
- Mobile operators providing competitive services and;
- Consumer zeal for the adoption of technology.

Just like her sister country Nigeria, Ghana's growing mobile sector has been driven by both demand-side factors such as the increasing popularity of cheap mobile phones and by supply-side factors such as regulatory reforms and technological innovation. In total there are more than a hundred million handsets in Nigeria, Ghana and Ivory Coast. Prices of phones both feature and smartphones have fallen over the years and this has raised the penetration of mobile and increased the adoption of the devices in the region.

Over the past five years, mobile penetration in each of the countries has grown from an approximate 30% of the population to well over the half population mark. In particular, by the end of 2011, Nigeria reported a 61% penetration rate, Ghana 87%, while Ivory Coast's mobile penetration rate stood, as at 2011, at 71%.

It is observed that while Nigeria records the least mobile penetration, it boasts the largest number of mobile subscribers in Africa with more than 90 million mobile subscribers from the country alone. The growth rate of mobile subscriptions has been rapid, with an average rate over the five-year period of 10%. Conversely, the usage of fixed lines in the region has been decreasing marginally in response to the increase of mobile phone penetration, with penetration rates dipping to just below 1% in each country in the region.

The Mobile Network

The major players in West Africa include multinational telecom network providers such as MTN, Orange, Tigo, Airtel, Etisalat and Vodafone. As the largest operator in West Africa, MTN currently boasts of 148 million subscribers in eight West African countries with Nigeria at 42M subscribers alone. Recently the company rolled out a bouquet of services running on its all-new ultra-high capacity submarine cable, West African Cable System (WACS). MTN is the single largest investor in WACS with commitments in excess of \$100M USD, including \$10M USD million towards the construction of cable landing facilities in Cameroon, Ghana, Nigeria and Cote d'Ivoire.

Following the acquisition of Zain Mobile across 15 African countries, India-based Airtel became the second largest West Africa mobile operation with 27M subscribers in Nigeria, Sierra Leone, Burkina Faso, Ghana, and Niger. Other mobile network operators have also made strong pushes into the West Africa market with innovations in product delivery and mobile data plans.

Globacom's, Nigeria, rapid growth is attributable to per second billing as well as its fast pace of deployment, efficient services, array of value added services and strong, unique marketing initiatives which have stood it apart in the region's telecommunication industry.

Abu Dhabi-based Etisalat expanded its Africa operations when in 2005 it acquired a 50% stake in Atlantique Telecom gaining access to mobile operators in Benin, Burkina Faso, Togo, Niger, Central African Republic, Gabon and Cote d'Ivoire. To further strengthen its presence in 2007 Etisalat acquired a 40% stake in Emerging Markets Telecommunications Services, Nigeria's fifth digital cellular network.

Orange, the French based operator is rapidly expanding in West Africa operating fixed or mobile networks in Equatorial Guinea, Republic of Guinea, Guinea Bissau, Cote d'Ivoire, Mali, Niger and Senegal. For the countries in its geographic footprint, Orange is actively modernizing existing networks and building out mobile and wireless networks in under-served locations.

Mobile And Internet

Recently, there has been an influx on Internet enabled phones in the region majority of them being WAP-enabled. The recent adoptions of smartphones have also made West African forward-thinking brands to explore the possibilities of promoting their services and product and engage with customers via mobile.

Nokia is almost a monopoly in Nigeria (76% of mobile devices in use) when it comes to common devices in the market. Furthermore, it is listed as the top used mobile phone manufacturer in both Ghana (46%) and Cote D'Ivoire (40%). This is a common trend observed elsewhere in the continent. Other manufacturers such as Samsung and Sony Er-

icson also enjoy some market share although these brands are more popular in Ghana and Cote D'Ivoire than in Nigeria. Among these top devices, many are by high-end phone manufactures such as RIM, HTC and Apple, indicating a strong market penetration of smartphones in the region and a greater prevalence to promoting mobile Internet browsing and application usage.

Despite the high mobile penetration rates though, mobile Internet is not as widely used as expected. In particular, in Ghana and Ivory Coast, Fixed Internet subscriptions surpass the mobile Internet penetration albeit marginally. In Nigeria usage fixed Internet usage stands at 28% to mobile Internet's 26% while in Ghana fixed Internet subscriptions are at 10% and mobile Internet at 9%. Regardless, total Internet usage is still below the half total population mark in both countries. However, over the past three years, there has been an exponential growth rate of mobile Internet.

In order to access mobile Internet services, statistics indicate that people prefer to download Opera Mini than use their native phone browsers, which tend to be data heavy.

In terms of daily mobile usage, SMS and gaming are the most popular mobile activities. With the less than half of West Africans with an Internet connection, social networking occupies less than 2% of the daily mobile usage activities.

However, popular social media sites are in use within the West African region with Facebook being the top accessed mobile site. Search engines, game downloads and Entertainment sites such as YouTube, Goal.com and Waptrick dominate in the ten list mobile sites. Foreign news sites are increasingly popular mobile Internet sites with all three countries' users frequenting sites such as the BBC and France24.

Value Added Services

Airtel is a strong proponent of the adoption of mobile money in West Africa recently partnering with Ecobank to launch mobile money services in Chad and Burkina Faso. Its efforts to promote a cashless economy resulted in an award for best mobile money services in Ghana.

Globacom was the first network in West Africa to commercially launch 3G HSDPA services when it rolled out 3G Plus services to subscribers in Lagos, Nigeria. With 12M subscribers in Nigeria, the Etisalat recently entered a partnership with Main One Cable Company to launch one of the first major broadband services in Nigeria.

The use of mobile for value added services such as m-commerce, m-learning, m-payments etc are still in their early stages. Many of these services are aimed at the upper classes of the economy, whose population is insignificant in these economies. However, we see many m-payment services springing up with a lot of collaboration between banks and mobile network services and also the birth of mobile payment providers.

The Opportunity for Mobile Advertising

By the day, West Africans see more banners and text ads on the screens of mobiles and also receive SMS from brands companies or even the government.

Better Internet services enabled by mobile operators has promoted local content on the mobisites with mobile web advertisement by brands and localized SMS marketing. Brands have also gone ahead to do localized targeting either by gender or location so as to effectively target their audiences and get the best dividends off their investment on this form of digital advertising.

West African countries like Nigeria, Ghana, Cote d'Ivoire, Senegal, Togo and Sierra Leone have been the foremost countries in mobile advertising, however. Nigeria's mobile advertising sites reported an average of three billion monthly ad impressions, compared to Ghana's 800 million and Ivory Coast's 300 million. This could be possibly due to the fact that Nigeria has the most mobile and mobile Internet subscribers in the region.

SMS marketing has been most dominant though in mobile advertising in West Africa and the reason is not farfetched. Given that the mobile penetration rate in the sub region is very high and SMS being a compulsory feature in all phones, it has been the most popular form of mobile advertising. The poor state of infrastructure furthermore has made it difficult for brands business to venture into other forms; poor broadband facilities for mobile web and lack of adequate data for effective targeting for opt-in list campaigns have narrowed down options for businesses.

For SMS marketing, the advertiser often goes through a content aggregator who sells these SMS units at cheaper prices to the advertisers. Opt-in based advertisements requires advertiser working directly with the mobile operator since their audiences will be highly targeted and content aggregators do not have targeting information. Opt-in advertisements usually come at a higher price to the advertiser.

However, over time, there has been a shift from traditional SMS marketing to mobile web marketing as many brands are moving ad spends to mobile web advertising where ads in form of banners and text are been viewed on news sites, blogs, sport sites, social networking sites etc. As more smartphones and web enabled features phones are adopted in the region supported by good Internet access, mobile web advertising is expected to outgrow SMS advertising in the near future.

Mobile advertising is heavily promoted in mobile content campaigns such as ringtones and ring back caller tunes. However, mobile advertising is also promoted through mobile web, e-commerce companies and many B2C companies. Due to the advent of mobile payments, financial institutions are now showing great interest in mobile advertising.

Brands too that have mobile communities or have strong social media presence often use mobile advertising to drive certain advertising goals such as sign ups/ registrations.

Mobile network operators though are the key enablers. They provide the platform for the propagation of messages, provide good and affordable internet access to browse web pages, and enabling mobile advertising platform with more capabilities such as targeting based on location, gender etc.

Recently, MTN Nigeria launched a mobile advertising platform known as the MTN Mobile Ads which utilizes various channels such as iSMS, SMS Flash, MMS, Rich Media, Location-based messaging, USSD Flash, Caller Tunes, IVR, Push and cell broadcast, each with their unique features and advantages.

The government is also contributing to the growth of the mobile ecosystem and the various services that can be provided via mobile. Apart from regulating the mobile advertising sub industry, they are also encouraging (either consciously or otherwise) the use of the service by using it.

Majority of governmental use of mobile advertising has been during elections to for campaign. Other uses are to sensitize or spread awareness messages to citizens, as many Africans have more mobile phones than televisions or radios. For example, there have been campaigns against malaria, HIV aids, indiscriminate refuse dumping etc, all sponsored by governmental and non-governmental agencies. Also, government checks the services of the mobile providers. For example in Nigeria, mobile providers are not allowed to send advertisement via SMS before 8am and after 8pm.

We expect that with improvement of the mobile telecommunication infrastructure and increased spending in the sector, this growth of the West African mobile industry will not slow down in the near future.

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