

Digital Inclusion and the Role of Mobile in Nigeria

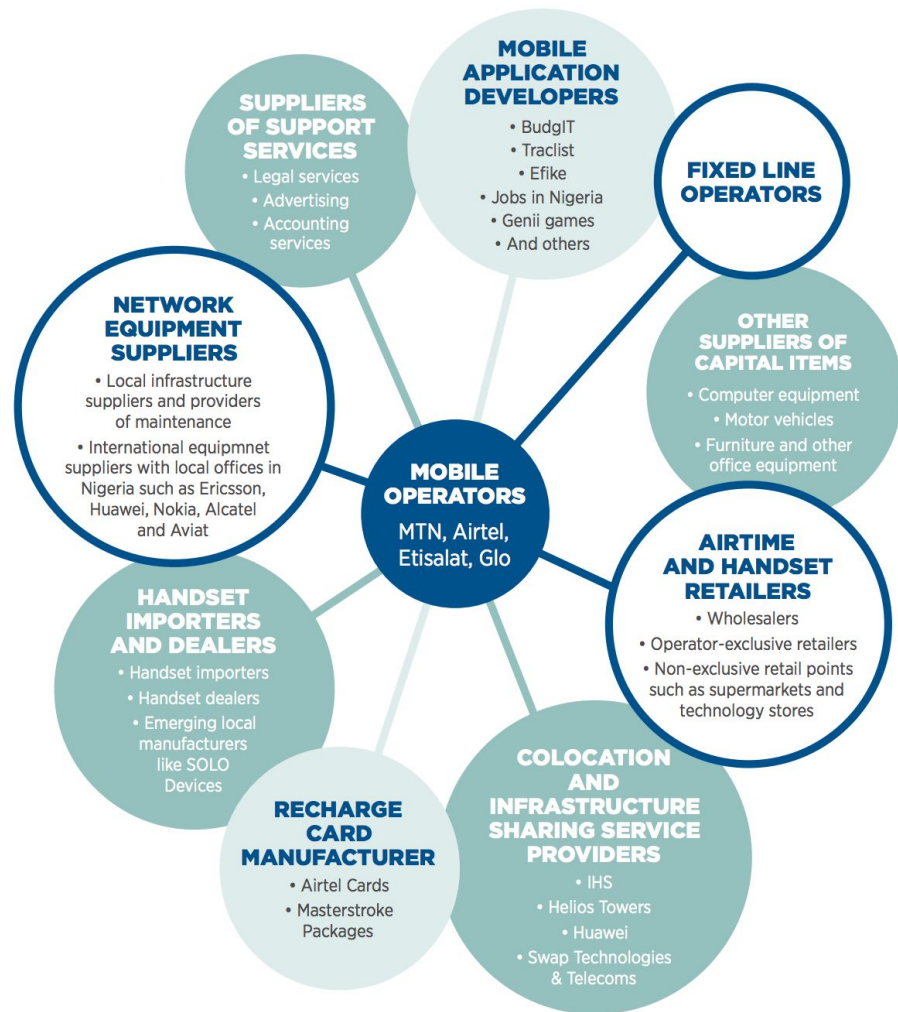
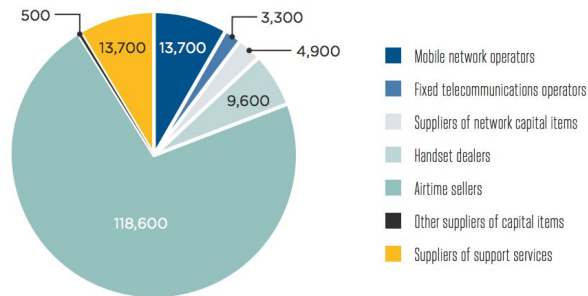
GSMA

CSE 490D 1/20/16

Akshay Chalana

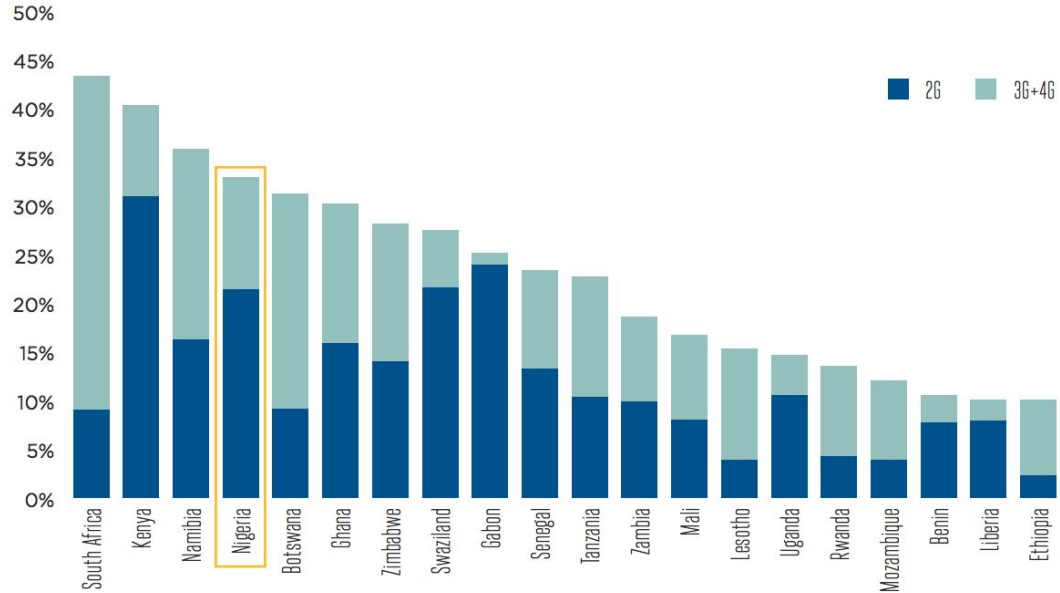
Akshat Shrivastava

Employment generated by the mobile communications ecosystem (direct and indirect effects) in 2014 (FTEs)

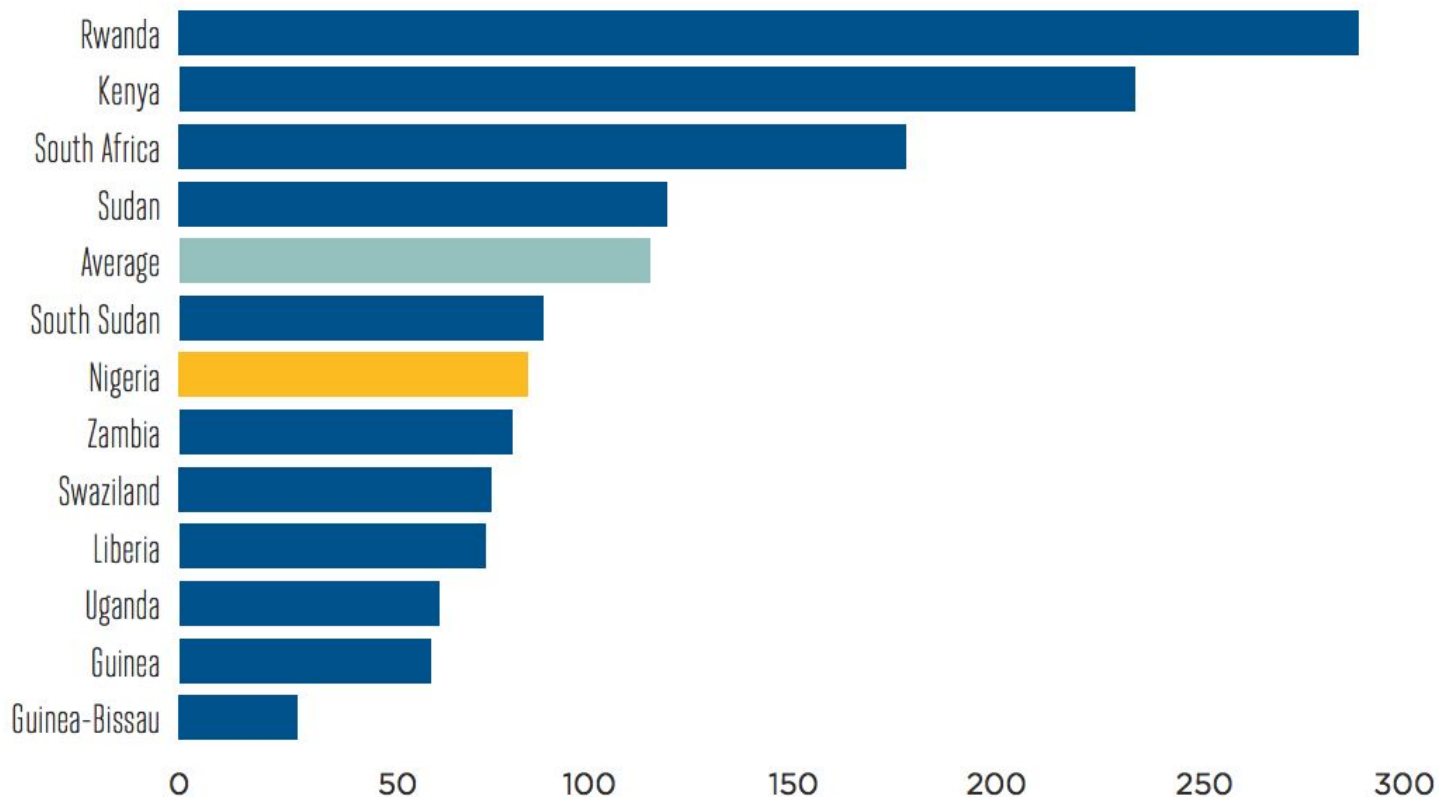


Limitations of Mobile Services

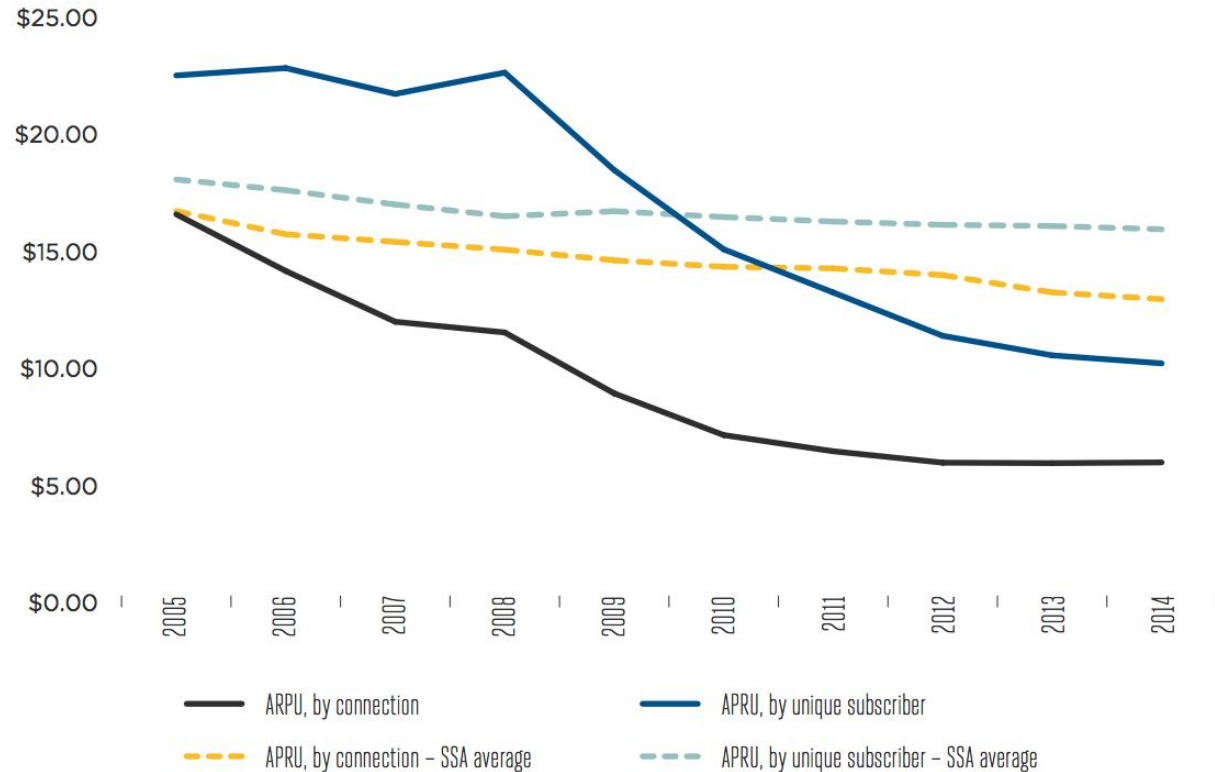
Unique mobile internet subscribers by technology in selected Sub-Saharan African countries, Q1 2015



Average monthly outgoing minutes of use per connection in selected African countries, 2014



Comparison of annual average ARPU in Nigeria and Sub-Saharan Africa over time (USD)



Source: GSMA Intelligence database

Figure 12

The Effect of Digital Inclusion on Nigeria's Economy

- Link to business factors like employees, travel, knowledge/information flow, and entrepreneurship
- Significantly cheaper to develop and run than fixed line broadband
- Total Factor Productivity increased by 4.2% by 10% increase in mobile penetration
- Facilitates greater access to social services:
 - Nova-Lumos Mobile Electricity
 - Etisalat Mobile Baby
 - Glo + National Health Insurance Scheme
 - Glo Xchange
 - iPolice

THE NIGERIAN GOVERNMENT AND UNITED NATIONS HAVE SET A NUMBER OF AMBITIOUS OBJECTIVES FOR SOCIAL AND ECONOMIC GROWTH

National Information Communication Technology (ICT) Policy

Enhance ICT's contribution to socio-economic development

Transformation into knowledge based economy

Nigeria's National Broadband Plan 2013-2018

Pervasive broadband deployment, adoption and usage

5x increase in internet and broadband penetration until 2017

Vision 2020

Turn Nigeria into top twenty economy by 2020

Inclusive and socially equitable economic growth

Transformation Agenda

Reduce unemployment and poverty

Robust and inclusive growth

Improve well-being

UN Sustainable Development Goals

End poverty and hunger

Inclusive and equitable economic growth

Quality education

Economic and gender equality

Improve well-being

Protect the planet and its natural resources

President Buhari's election manifesto

10-12% annual growth

Information technology, manufacturing, agriculture and entertainment as drivers of the economy

MOBILE SERVICES CAN HELP DELIVER THE GOVERNMENT'S GOALS THROUGH THE SOCIAL AND ECONOMIC BENEFITS THEY ENABLE

Promote digital inclusion and the growth of knowledge-based economy

Enhance productivity, innovation, and social development

Promote long-run economic growth

Provision of e-government services

Support Healthcare through e-health

Support education through m-education

By providing access to learning resources and fostering information sharing, mobile access can promote primary and secondary education and increase literacy rates

By supporting a large ecosystem of industries and small businesses, mobile services improve labour and capital productivity, increasing economic growth, decrease poverty and fostering investment

Increased broadband access promotes job creation, economic growth and innovation improving ease of doing business and making Foreign Direct Investment (FDI) more attractive

Mobile services and m-government initiatives contribute to administration efficiency at local and national government levels

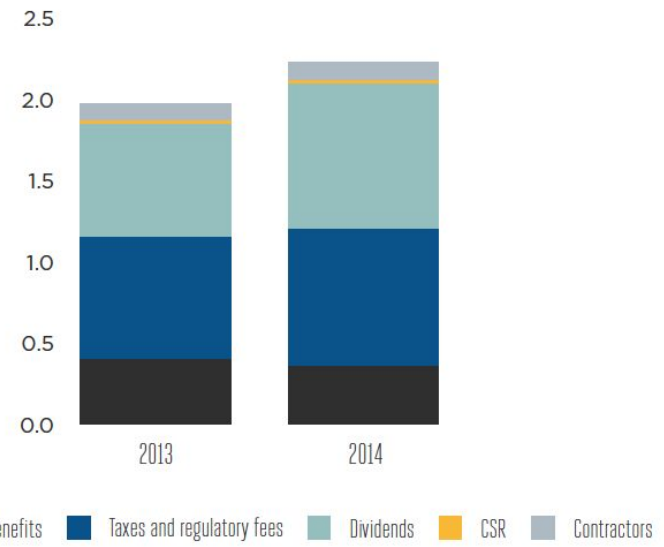
Increased access to information promotes better education and health outcomes, and mobile health and education apps are increasing access

Estimation of the economic impacts of mobile telephony



Figure 16

Direct domestic value add of mobile operators (excluding multiplier effect), USD billions



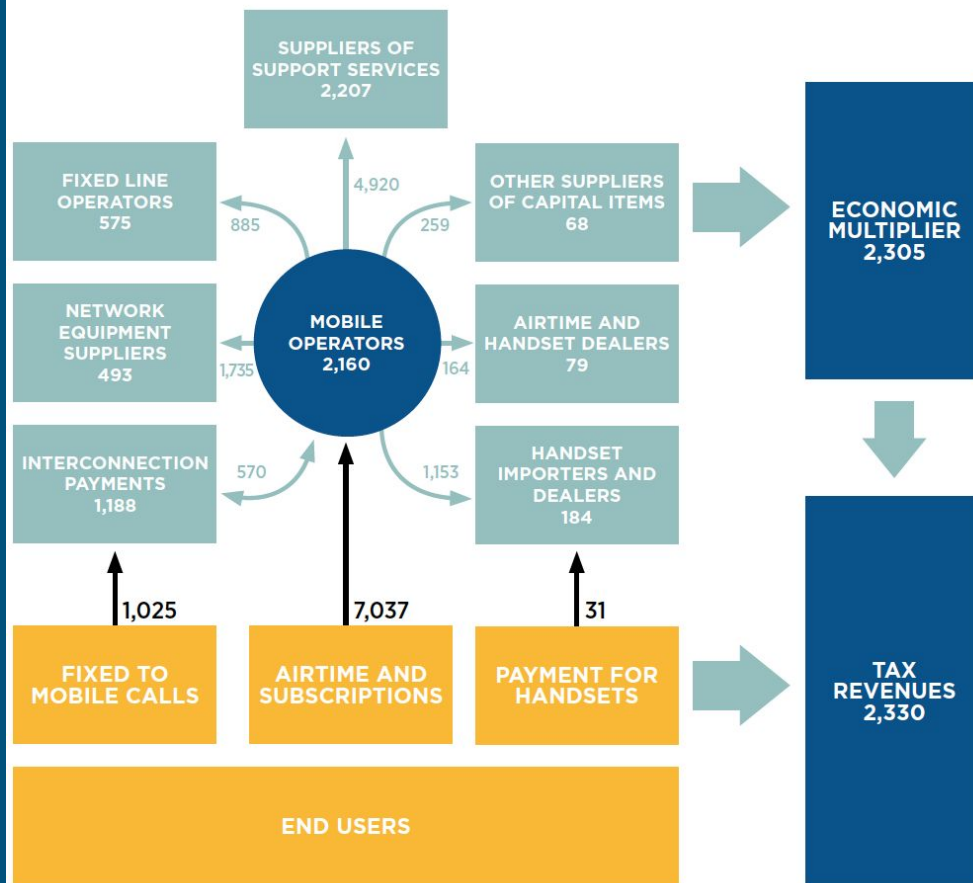
Source: Deloitte analysis based on data provided by the mobile operators, interviews and analysis of company accounts. Figures exclude multiplier.

Figure 18

\$3.7b USD

Indirect Value Add by Mobile Industry in Nigeria in 2014

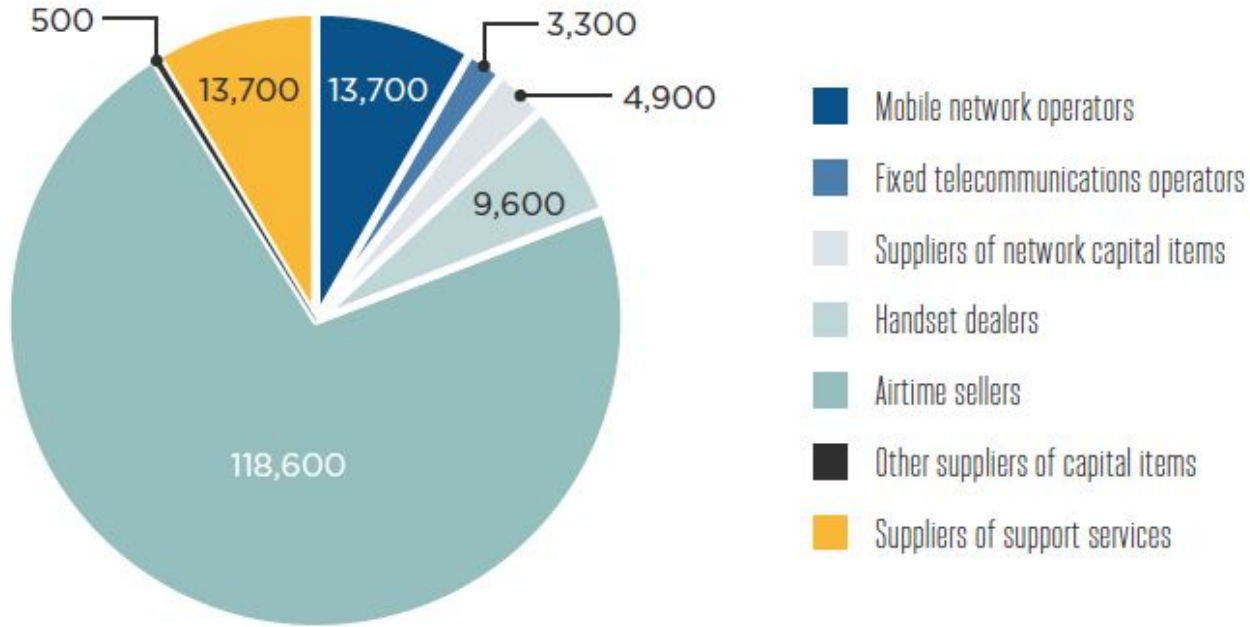
Mobile value chain and value add in 2014, USD millions



Source: Deloitte analysis; Values in the boxes are value add

Figure 19

Employment generated by the mobile telecommunications ecosystem in 2011 (FTEs)



Source: Deloitte analysis (differences due to rounding). Figure excludes multiplier

Figure 21

+1% = +.28%

Mobile Penetration Increase = GDP Increase

+1% = +.077%

Internet User Penetration Increase = GDP Increase

+10% = +1.388%

Broadband Subscriber Penetration Increase = GDP Increase

2x = +2.35%

3G Penetration Rate Increase = Per Capita GDP Growth Rate Increase

Discussion Questions

1. How does mobile phone use in Nigeria compare with other African countries?
 - a. How much of this is culturally influenced and how much is just a matter of circumstance?
2. A significant portion of the suggestions made by the authors involve tax reform such that mobile telecom providers would be taxed more fairly. However, other parts propose greater government involvement in infrastructure development as a core component of increasing digital inclusivity. How do these two factors interact and how can we/they determine an appropriate balance?

Contd.

1. The Average revenue per user for Nigeria has been falling and is now below the ARPU for SSA. This results in Mobile companies focusing on how they can immediately make money rather than investing it or spending it for long term growth. How would one go about dealing with the growth and expansion of the mobile market, while being profitable?
2. The authors point out the expansion of the mobile ecosystem and its effects on infrastructure through new initiatives for mobile users such as iPolice, an app for Nigerians to report crimes easier. However with expansions like this, similar to M-PESA, consumers may be concerned about the safety and security of such expansions. How could these issues be tackled to get rid of consumers' concerns on the validity of the mobile network in general?

Contd.

1. While the authors' proposals focus on government action, many of the observed current efforts are private collaborations. How does one prevent the potentially negative consequences of this (in terms of profit-driven 'altruism' i.e. Facebook Free Basics and the like)?
2. The most significant portion of the mobile-driven workforce in Nigeria is airtime suppliers. M-Pesa (and other mobile money) agents are more or less a reconfiguration of this role. How else might the rise of mobile-driven technology impact the division of employment within the industry?

Contd.

1. One of the National Information Communication Technology (ICT) Policy objectives is “Transformation into a knowledge based economy.” How might this objective be conflicted with regards to the issues that are described with the mobile industry in Nigeria, and what are the essential goals to push towards it?