Digital Inclusion and the Role of Mobile in Nigeria

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

- Mobile network operators: 118,600
- Fixed line telecommunications operators: 4,900
- Suppliers of network capital items: 9,600
- Handset dealers: 13,700
- Antenna suppliers: 13,700
- Other suppliers of capital items: 500
- Suppliers of support services: 13,700

**Network Equipment Suppliers**
- Local infrastructure suppliers and providers of maintenance
- International equipment suppliers with local offices in Nigeria such as Ericsson, Huawei, Nokia, Alcatel, and Aviat

**Suppliers of Support Services**
- Legal services
- Advertising
- Accounting services

**Mobile Application Developers**
- BudgIT
- TracList
- Efike
- Jobs in Nigeria
- Genii Games
- And others

**Fixed Line Operators**

**Other Suppliers of Capital Items**
- Computer equipment
- Motor vehicles
- Furniture and other office equipment

**Airtime and Handset Retailers**
- Wholesalers
- Operator-exclusive retailers
- Non-exclusive retail points such as supermarkets and technology stores

**Mobile Operators**
- MTN
- Airtel
- Etisalat
- Glo

**Handset Importers and Dealers**
- Handset Importers
- Handset Dealers
- Emerging local manufacturers like SOLO Devices

**Recharge Card Manufacturer**
- Airtel Cards
- Masterstroke Packages

**Colocation and Infrastructure Sharing Service Providers**
- IHS
- Helios Towers
- Huawei
- Swap Technologies & Telecoms
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
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<td>Enhance ICT’s contribution to socio-economic development</td>
<td>Pervasive broadband deployment, adoption and usage</td>
<td>Turn Nigeria into top twenty economy by 2020</td>
<td>Reduce unemployment and poverty</td>
<td>End poverty and hunger</td>
<td>10-12% annual growth</td>
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<td>Transformation into knowledge based economy</td>
<td>5x increase in internet and broadband penetration until 2017</td>
<td>Inclusive and socially equitable economic growth</td>
<td>Robust and inclusive growth</td>
<td>Inclusive and equitable economic growth</td>
<td>Information technology, manufacturing, agriculture and entertainment as drivers of the economy</td>
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<td>Improve well-being</td>
<td>Quality education</td>
<td>Economic and gender equality</td>
<td>Improve well-being</td>
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<td>Protect the planet and its natural resources</td>
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THE NIGERIAN GOVERNMENT AND UNITED NATIONS HAVE SET A NUMBER OF AMBITIOUS OBJECTIVES FOR SOCIAL AND ECONOMIC GROWTH
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<th>Benefits</th>
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<td>Promote digital inclusion and the growth of knowledge-based economy</td>
<td>By providing access to learning resources and fostering information sharing, mobile access can promote primary and secondary education and increase literacy rates.</td>
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<td>Enhance productivity, innovation, and social development</td>
<td>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.</td>
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<td>Promote long-run economic growth</td>
<td>Increased broadband access promotes job creation, economic growth and innovation improving ease of doing business and making Foreign Direct Investment (FDI) more attractive.</td>
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<td>Provision of e-government services</td>
<td>Mobile services and m-government initiatives contribute to administration efficiency at local and national government levels.</td>
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<td>Support Healthcare through e-health</td>
<td>Increased access to information promotes better education and health outcomes, and mobile health and education apps are increasing access.</td>
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<td>Support education through m-education</td>
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Estimation of the economic impacts of mobile telephony

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

Source: Deloitte analysts 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)

- Mobile network operators: 13,700
- Fixed telecommunications operators: 500
- Suppliers of network capital items: 13,700
- Handset dealers: 9,600
- Airtime sellers: 4,900
- Other suppliers of capital items: 3,300
- Suppliers of support services: 500

Total: 118,600

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

Figure 21
+1% = +.28%

Mobile Penetration Increase = GDP Increase
Internet User Penetration Increase = GDP Increase
Broadband Subscriber Penetration Increase = GDP Increase

+10% = +1.38%
$2x = +2.35\%$

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?
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?
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?
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?