

Telecoms in Africa – any specifics to consider?



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Telecoms in Africa

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At present:

- Wikipedia editor, User:Boberger
- Board of Wikimedia Sverige

In the past:

- Development aid 38 years (Asia, Latin America and Africa)
- Mostly business development, last 10 years ICT
- Lived in Zambia and India

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Telecoms in Africa – any specifics to consider?

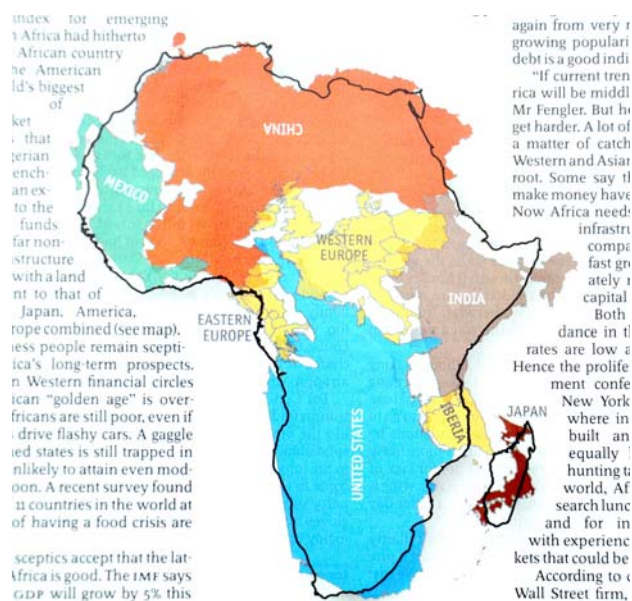
Agenda:

- Relevance of Africa
 - Demography
 - Urbanization
 - Use of mobiles
- Specifics of Africa
- Business model for an African operator...
 - ... may be instrumental for European/Asian/American operators as well?

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The sheer size



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Demography: world population, in selected regions (billion inhabitants)

Region	2000	2050	2100
Asia	3.6	5.2	5.0
India	1.0	1.5	1.5
China	1.3	1.4	1.2
Africa	0.8	1.8	2.3

•Source: UN ESA, medium scenario

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African population forecast

- Population of Africa is growing almost twice as fast as any major region in the world
- Fertility has started to fall, but ...
- ...simple population momentum guarantees continued rapid increase
- Population long-term forecasts are normally good forecasts

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Forecast of population growth in selected African countries

• Country	2000	2100	% change
•	million	million	
• Nigeria	115	303	164
• Ethiopia	66	222	239
• Congo (DRC)	49	203	319
• Uganda	24	167	611
• ---			
• Burundi	6	28	341
• Burkina Faso	12	65	447

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Urbanization: urban population 1975-2030

	1975	2000	2030
• Africa , millions	103	295	748
• Africa, %	25.3	37.1	53.5
• Africa, share of world urban population, %	6.8	10.3	15.1
• (Europe, ditto)	(29.4)	(18.5)	(11.0)

Source: Barney Cohen: Urbanization in developing countries, 2006

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Urbanisation in Africa: Who has heard of Mbuji-Mayi?



The only photo on Creative Commons

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Urbanisation in Africa: Who has heard of Mbuji-Mayi?



- ~ 1.5 million inhabitants 2010
- ~ 2.2 million 50 % more inhabitants 2010-20 (Ouagadougou 81 %!)
- ~ 2.7 million 2025
- How many millions 2050? 5-6 ?
- Figures for Mbuji-Mayi and other Congolese cities "little more than educated guesses"
- Wikipedia article in French: 5,000 bytes
- Source: UNHABITAT: The State of African cities 2010 – Governance, Inequality and Urban Land Markets

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Ongoing and future urbanisation in Africa

- By 2030, urban population in Africa (748 million), more than the population in Europe, North America and Latin America)
- 70 % of population growth in cities and towns
- Urbanisation not directly connected to cities as engines of economic growth (as in Asia or Latin America)

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Top ten megacities as of today

	2005	2015	
• Tokyo	35.2	35.5	Asia
• Mumbai	18.2	21.9	Asia
• Mexico City	19.4	21.6	Latin America
• Sao Paulo	18.3	20.5	Latin America
• New York	18.7	19.9	North America
• Delhi	15.0	18.6	Asia
• Shanghai	14.5	17.2	Asia
• Calcutta	14.3	17.0	Asia
• Dhaka	12.4	15.2	Asia
• Jakarta	13.2	16.8	Asia

- Source: Mark Lewis: By the numbers – Megacities of the Future, Forbes, June 2007

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Urban agglomerations in the near future (2025), million inhabitants

- | | 2025 | 2011 | |
|----------------|------|------|---------------|
| No 11 Lagos | 18.9 | 11.2 | (No 19) |
| No 19 Cairo | 14.7 | 11.2 | (No 20) |
| No 20 Kinshasa | 14.5 | ? | (not on list) |

Source: UN ESA March, 2012

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African urban agglomerations 2030

Number, World order	City	million inhabitants
• 6	Cairo	23.3
• 11	Kinshasa	20.7
• 20	Lagos	16.7
• 41	Johannesburg/East Rand	9.1
• 45	Khartoum	8.6
• 50	Luanda	7.8
• 57	Nairobi	6.9
• 59	Addis Ababa	6.8
• 61	Abidjan	6.8
• 68	Dar es Salaam	6.0

- Africa will have 10 out of the 70 biggest urban agglomerations
- Source: Private (derived from www.demographia.com)

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Telecoms in Africa (outside RSA) – a history

- Mobiles were in fact the first networks
- Private owned mobile operators in competition (?) with government fixed phone operators
- Mobile networks were latecomers seen in a world perspective, with low equipment costs and with well tried operations models
- Low costs and low prices were a precondition for success
- Domination by a few groups based in developed countries (RSA and Europe)

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Telecoms and Africa

- Share of GDP tends to be high (Kenya 6%, Uganda 5%)
- Mobile lines > 90 % of total (> 50 % telecom revenues)
- Penetration varies, > 50 % in average (2010), 60 % during 2012
- ARPU low (27 USD Sweden, ~ 5 USD Kenya)
- 2011: 84 million internet-enabled mobiles
- 2014: 69% of all mobiles in Africa have internet access (data for 3 USD/week)
- Supercomputer in every pocket soon (?)
- Source; i.a. ITU

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Annual growth of laggards 2011

- Ethiopia 116 %
- Mali 62 %
- Djibouti 60 %
- Burundi 58 %
- Burkina Faso 49 %

- Continental average 17 % in one year

- Source: Peter Lange, BuddeComm Analysts

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Is African mobile telecom different?

- Hardly differences in technology, but for need of low prices of devices in poor countries
- Infrastructure different. Operators have built own microwave backhaul systems (tower to tower). Pattern may persist. Now own optical fibres as well.
- Business models have been adapted (prepaid, sms-based services)

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Telecoms in Africa: in short

- Africa will grow fast in your working life time
- Urbanisation in Africa will create huge, innovative, urban agglomerations
- M-pesa in Kenya and no roaming charges between neighboring countries are examples of telecoms inventiveness
- Smart phones the given basis for future use of Internet services in Africa

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Telecoms for what?

- Belief in Swedish telecom industry 2004: Data use in Africa will be for entertainment (music, games..)
- ... smart phones in Africa is a leapfrogging technology
- Mobiles are for communication, communication, business, money transfer, communication, information, entertainment

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A working model for an African mobile telecom operator – out of necessity

Low costs + low prices + innovations = profitability

equipment	for services	(prepayment)	Safaricom
software	for devices	(M-pesa)	
op. costs		(free roaming)	
overhead		future ones for data services?	

Be as low cost/low price as IKEA!
Be as innovative as 3M!

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A working model for any mobile telecom operator ?

Low costs + low prices + innovations = profitability

Questions to you:

Is there really any difference in viability of business models for a rich, mature market ?

Would not the "African" business model work very well also in Estonia, or Ireland or Germany?

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- There is still much to discover in and about Africa. Above is a lesula, a new species, first discovered 2007, in Congo-Kinshasa, but ...
- ... the transparents to follow will not be discussed at the lecture

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Safaricom, a successful African operator

- 20,000 customers in 2000
- Owner forecasted peak of 400,000 in the year 2010
- 12 million customers 2011
- very profitable
- M-pesa transfers: 1 billion USD per year
- Why successful?: cheap phones, low costs, SMS, prepaid accounts, M-pesa mobile bank invention

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Africa, some characteristics

- Strong oral culture - preference for voice-activation technology
- Language dichotomy: big western lingua franca languages and numerous local ones
- Poorest continent, low ARPU
- More and more the youngest continent
- Fastness of technology dissemination creates leapfrogging effects

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Summary

- Africa will be a big market and a market for young people
- Africa is a probable ground for innovations in lower costs, business models and new services
- Possible biggest challenges in Africa for foreigners the cultural sphere ? (understand the kind of demand by the ultimate customers)
- Mobile operators are now the real incumbents. not the fixed line telecom companies

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Regional operators in Africa

- Orange (France Telecom) 18 countries
- MTN i South Africa 16 countries
- Bharti Airtel (earlier Zain) 17 countries
- Vodacom (50% Vodaphone) 5 countries
- Millicom (Tigo) 7 countries
- Orascom (Egypten) a few countries

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The Economist on digital Africa

Three companies to dominate next decade:

- Facebook
 - Google
 - Nokia
-
- Well, who knows?

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Me and telecoms Africa (10 years ago)

- Swedish funds Internet café idea were never used for establishing internet cafés, community data centres and the like.
- - - -
- The necessity of collective internet access internet cafés was the conventional wisdom around 2000 with high political pressure, but this was an unsustainable idea, not feasible for public funds investment
- Mobile phones + texting filled the immediate basic demand, i.e communication and basic information
- Now smart phones in every mans pocket will fill the rest of the demand for information
- The achievement of mobile phone companies in Africa historically is difficult to overestimate
- May phone companies and other private actors be as sucessful in the future?