

WHAT ARE THE ECONOMIC AND SOCIAL IMPACTS OF THE MOBILE PHONE SECTOR IN DEVELOPING COUNTRIES?

In charge of Africa'NTI, a partnership between European and African research institutes to analyse the integration and use of communication technologies in Africa, Annie Chéneau-Loquay highlights in this article the fact that after several years of very strong growth, the mobile phone sector continues to face a number of challenges. Those are particularly related to the impact of this service on the budgets of the poorest households.

The Impacts of the Mobile Phone Sector on Development: Mixed Results?

The expansion of the mobile phone sector in developing countries would appear to have obvious benefits. However, the conditions in which this takes place can sometimes be questioned. Deregulation in the telecommunications sector has not always led to healthy competition, regulatory authorities seem to be too dependent on public policy, and the sector – even if it does create a lot of employment – has strengthened the informal economy. The share of income that users devote to mobile phones is also very often too high.

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In Africa, where social relations are particularly complex and very often oral-based, the mobile phone has already clearly proven its usefulness. The benefits of its use may indeed be unquestionable, but the potential problems posed by the rapid growth in the mobile phone sector need to be examined. Technological innovations often shore up the liberalization of economies; for example, the development of “personal mobile communication systems” has scaled up deregulation in the telecommunications sector. This has led to sweeping changes in its economic model. National operators – entities that have traditionally enjoyed monopolies – have opened up to competition, even if only a handful of major international operators have expressed interest in taking them over. Smaller and more flexible newcomers – mostly foreign – are specifically moving into the profitable mobile phone niche.

A badly regulated market opening?

Following the advice of the IMF, World Bank and International Telecommunication Union (ITU), most African States have – either willingly or reluctantly – set out to liberalize their telecom markets. Regulatory authorities – reputed to be autonomous and independent – have consequently been set up to support and manage the opening of markets. They play a key role, for example, by imposing the nationwide extension of services through the specifications they draw up for operators.

Situations do, of course, vary enormously depending on the country – as demonstrated by the ITU 2008 report. The poorest countries have the lowest level of equipment – their States are weak and

their regulators lack efficiency. There are considerable variations in population penetration and coverage rates; the average is 27%, yet they range from 90% in Gabon, the Seychelles and South Africa to under 2% in Ethiopia, Eritrea and the Democratic Republic of Congo (DRC). The latter is the archetype of a country that lacks structure and State control, yet in the late 1980s it was one of the first countries to support the development of the sector by liberalizing it¹. DRC today counts around 10 operators that compete in this growing market (63% between 2002 and 2007), yet they only provide a 50% nationwide coverage, suffer from mediocre service quality and an almost total lack of interconnections.

More generally, operators are particularly concerned about political interference in the regulation process. Some 88% of respondents to a survey conducted by the consultant Ernst & Young feel that regulatory authorities in Africa are not sufficiently independent (Ernst & Young, 2009). This lack of independence (perceived or real) may constitute a brake to the arrival of new operators – and, consequently, to the development of competition. It is clear that existing telecom regulatory authorities do not have the capacity to fully conduct all their missions. According to an OECD study, their creation and work have not brought about a substantial increase in private investments, despite the implementation of more suitable regulatory frameworks (Do-Nascimento, 2009). In Senegal, the public monopoly held by Sonatel, the former national operator, was simply replaced by a kind of private monopoly that benefited France Telecom. Indeed, the latter ...

¹ The private African operator Teleset set up the first mobile cell phone network in Kinshasa back in 1986. The network was subsequently extended to Lubumbashi in 1992, Goma in 1993, then to Bukavu in 1996.

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... dominates the mobile phone segment with 64.3% of market share. The operator took advantage of both its position as firstcomer and support from the State, which on two occasions threatened to withdraw the licence awarded to its competitor Sentel (Sagna, 2009b). These quasi-monopoly situations are common in Africa. Two of the biggest operators on the continent, Vodafone and Mobile Telephone Networks (MTN), account for an average of over 50% of the market in some 20 African countries. For its part, Safaricom, East Africa's biggest operator, holds over 80% of Kenya's mobile phone market. Although these companies generate sizeable profits – USD 900 million in 2008 for Safaricom –, it partly stems from the fact that they are not always operating in the context of healthy competition that the regulatory authorities are supposed to create!

In addition to hampering the development of healthy competition, the shortcomings of regulatory authorities help foster informal activities in the mobile phone sector. In 2007, the latter directly or indirectly employed over 3.5 million people in Sub-Saharan Africa. Most of these jobs are in the informal economy. In Africa, like elsewhere, operators seek flexibility in order to reduce labor costs, absorb shocks from variation in demand and limit the power of unions. They consequently outsource or subcontract their services and the sector creates a whole host of new service activities that range from product imports to street trading. For example, phone companies subcontract the distribution of prepaid cards to wholesalers and semi-wholesalers that have their own networks of sellers who are very low-paid and not registered anywhere (Chéneau-Loquay, 2008). In Bamako, for instance, 98% of cards are sold in an informal context. Hundreds of youngsters find casual jobs in the mobile phone sector: mobile phone sales and repairs, decoding, sale of recharge cards, electric recharge, etc.

Mobile phone development to the detriment of landlines

Given their low standard of living, African populations have developed a mutualized access to the telephone and internet – which has widened the use of them (Chéneau-Loquay, 2004). However, this mutualization of communication tools may well gradually be replaced by a more individualistic model similar to developed countries.

While mobile phones are used in some countries in order to rapidly install – at a lower cost – telecommunications infrastructure that previously did not exist, it hampers the development of landlines. In 2007, ITU inventoried seven times more mobile phones in Africa than landlines; the number of landlines has been falling in 14 countries since 2002, while the number has stagnated in eight countries. This can be put down to landlines being replaced by mobile phones which limits the development of Internet. In Mali, for example, as well as in Burkina Faso and Senegal, telecenters² are no longer a success. In Senegal, the Sub-Saharan Africa country with the most landlines (excluding South Africa), the mobile network has developed, whereas the landline system was efficient. At the same time, the number of telecenters has plummeted: from 24 000 in 2006 it had fallen to under 5 000 in 2009 (Sagna, 2009a). And yet not everyone has a mobile phone: in 2007, ITU estimates that 40% of Africa's population was not covered by a mobile phone network – *i.e.* over 300 million people! Indeed, only 7% of households in rural areas have a mobile phone.

Mobile Internet: a way for the future?

One may be right in thinking that access to Internet *via* mobile phones may offset the low level of “cabled” Internet development³. Indeed, the number of Africans using their mobile connection for Internet access skyrocketed in 2008 and, for example, some seven million Nigerians now surf the Net *via* their mobile phones. This broadband mobile technology is considered by ITU as a solution to the lack of infrastructure. But these services will remain unaffordable to most private users; indeed, they require new investments and generate specific costs and are not destined to be developed on a large scale on a continent where the bulk of the population lives below the poverty line. From this perspective, it remains essential to create public access outlets for a whole host of functions that are useful to everyone: office IT, Internet research, e-mail services, etc.

In addition, the websites and services available *via* mobile phones only represent a selection defined by the operator. The freedom of choice – which is inherent to Internet – consequently disappears. This does not appear to particularly bother the biggest consumers that also put up with poor conditions of use (rightly criticized ...

² A telecenter is a public place where users have access to computers, Internet and other information and communication technologies.

³ Africa is seriously lagging in terms of Internet and broadband access.

The continent has regressed in terms of connectivity; just under four Africans out of 100 have access to Internet. Broadband penetration remains below 1% (www.itu.int).

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... by consumer associations): network cut-offs, complicated procedures, unclear tariffs, etc. In fact, mobile phone operators adjust their strategies to the society as it exists – to a shortage economy – even if this means promoting practices that do not respect the rule of law (Chéneau-Loquay, 2008).

A high-cost budget item for African households

Without asserting that the mobile phone sector contributes to making the poorest populations in developing countries poorer, it does not necessarily improve their lives. Research ICT Africa has underscored the size of the budgets that users devote to the telephone. In 75% of the low-income population in the 17 countries surveyed, the average African spends 26.6% of his individual income on it in Kenya, 23% in Ethiopia, 22% in Tanzania, 9.4% in Senegal. These statistics would appear to demonstrate that the cost of phone services is still too expensive and that it takes up an excessive share of income.

These levels of expenditure can be explained by the importance given to appearance in Africa: people are willing to make sacrifices in order to have the latest mobile phones. The high level of sociability and the strong community feeling mean that people tend to observe each other; mobile phones are modern objects and can help people stand out from the crowd. The symbol of what makes one different is today mainly based on the equipment one owns (Ndiaye, 2008). There is consequently an undoubtable irrational aspect to the importance given to mobile phones and the behavior they lead to (Song, 2009)⁴.

This article consequently takes stock of some of the negative impacts that the development of the mobile phone market may have in Africa. Without challenging its obvious usefulness, it is indeed necessary to question the most debatable aspects of the development of the sector. The profits generated have benefited a handful of minorities (private operators, foreign equipment manufacturers, etc.), while most of the opportunities of the information society remain inaccessible to the majority of people. Mobile phone equipment accounts for a significant share of individual incomes – to the extent that one can, in all cases, question the prices charged and the irrational aspect of certain purchasing behavior. ●

⁴ Steve Song is referring here to behavioral economics, particularly introduced by Dan Ariely.

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