



## Understanding real-life economics: A phone can mean a new life

Mobile phones satisfy basic needs by generating the extra income so crucial for low-income households to make ends meet. The telecom business community thus needs to gain deeper insights into how communication changes the lives of the poor and what their priorities are.

*Felix lives with his parents and younger sisters in a village outside Benin, Nigeria. He is a farmer and, as the oldest son, is expected to take over the farm and the house one day. The family lives off the money they make from the farm, but because this is not enough to provide for food and education, Felix's younger brother, who works as a trader in Lagos, sends them money each month.*

*The process of delivering the money is difficult and costly. A friend of the brother brings the money when he travels to Benin to see his family each month. He is paid 400 naira (USD 3.25) if he takes the money as far as Benin and 1000 naira if he brings it out to the village.*

*The friend sometimes delivers the money to the village, but most of the time Felix has to pick it up in Benin, a trip that takes one or two hours by bus and costs 400 naira for a return ticket.*

*In Benin, Felix makes a call to the friend from a local business center, and then waits for him to arrive with the money. If the friend is busy, Felix sometimes has to wait a long time.*

Living on USD 2-5 a day is not easy. Every opportunity to make a few extra cents is crucial. In the rural areas, people usually earn their small and fluctuating incomes by cultivating small plots of

land and selling a couple of liters of milk. People may also have very small businesses (kiosk, cobbler, blacksmith, tailor) or take on casual work (picking tea, chopping wood).

People who earn more than USD 5 per day tend to be employed and have a business on the side. The major difficulty in the city, as in rural low-income segments, relates to making money. Apart from food costs and school fees, people must pay rent for housing as well as electricity and water bills. Money is constantly on their minds as they decide how to make use of limited resources: "Do I take the bus or eat lunch?"

A typical rural area consists of one main village surrounded by several smaller villages. Many of the common amenities (school, court, health center) are located in the main village, where about 600-1000 people live. The smaller villages are 4-10km away from the main village. Each village is made up of privately owned houses where the villagers live in close proximity to each other. Farms are located outside the villages. Some farmers have to walk two-three hours to reach their land. Many men leave the village to find jobs in a city to support their families back home.

This is the reality for people living in rural areas in Nigeria and Kenya.



**“It is difficult for us because we don’t have much money. I try to help on other people’s farms but they don’t always need me. If phone calls were possible, I could find jobs in other villages, too.”**

**GRACE, 36, ODUNA, NIGERIA**

Does life really change with mobile phone coverage? And if so, how? How can people living on USD 2-5 a day benefit from mobile telephony?

The story about Felix comes from our research in Nigeria last year. Now let’s look at a similar story, with the same size transaction, for someone who has a mobile phone and lives in an area with coverage.

Ronke has a sister who attends school and is often short of cash. When Ronke’s sister has run out of money, she calls or texts Ronke, who then sends an SMS with a top-up card number. The sister sells the top-up card at a business center (for a fee), converting it into cash.

So instead of paying more than 850 naira for someone to bring the money to a nearby city, plus bus expenses, waiting time and so on, Ronke’s sister pays a fixed fee of 100 naira to convert airtime into cash. This is a saving of at least 750 naira and about four hours of time, plus there is no risk of being tricked by the person who is bringing the money – a dramatic change made possible by a mobile phone and the creativity of people on low incomes.

Our studies in Kenya and Nigeria reveal that mobile networks really can enhance living conditions for poor people. Mobile phones enable major leapfrog developments in business opportunities and the ability to maintain vital social networks. These effects are evident for the people, the villages, and the cities, as well as for the countries as a whole..

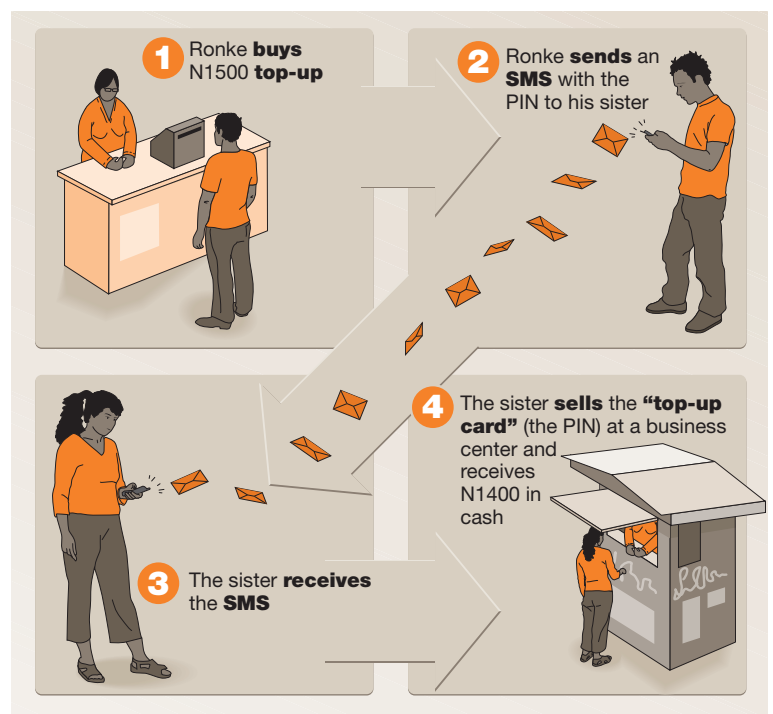
*Having a mobile phone has made it much easier for Amina and her family to get health assistance when someone in the family is sick. With three small children in the household, Amina often needs to get in touch with a nurse or doctor. With a mobile phone, the family can get advice by making just one call; if an examination is needed, they can arrange for the doctor to make a house call, or they can make an appointment to see the doctor at the health center. Previously, Amina’s husband had to walk 4km to the nearest health center without knowing if the doctor was actually there.*

Infrastructure in these countries has often been neglected for years, resulting in frequent power cuts, bad roads, and a lack of

public transportation and public phones. Getting in contact with people living beyond walking distance is difficult, as traveling is associated with long journey times and danger. Mobile phones reduce stress and risk, and save time, connecting people in a fast, easy, and relatively cheap way. People often say about the mobile network: finally, a modern infrastructure that works.

**Mobile phones create new business**

*Hasia received a mobile phone from her sister who lives in Saudi Arabia. This was a great gift because Hasia can use it to earn extra money for the family. Each day, Hasia sends her younger brother out to the main road with the mobile phone, where he sells phone calls, bringing in an extra 1500 naira per month for the family. Hasia can’t do this herself because she is not allowed to go out, except when her husband gives her permission to visit close friends or family.*



## ❖ ...A phone can mean a new life

**“I was really happy when my sister gave me a mobile phone. I soon realized that I could ask my brother to go to the roadside to sell calls, and that has given us some extra money, which we really need.”**

**HASIA, 22, JOGANA, NIGERIA**

Unemployment is high and many people rely on the informal sector for their incomes. Competition is fierce as many people sell the same products; those who run their businesses more efficiently are therefore more likely to succeed.

In an environment where every deal is crucial, mobile phones have made it possible to negotiate prices and arrange deliveries from suppliers, as well as to build and maintain customer relationships, resulting in more business and increased income.

**“We were planning to buy a goat, but decided to buy a phone instead for our business ... Life is cheaper when I have the mobile phone and don’t have to pay for the matatu (minibus) to Muranga.”**

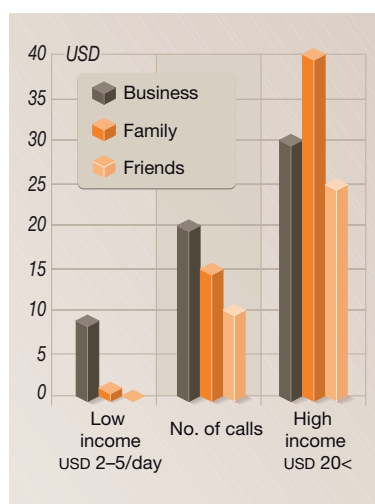
**NANCY, 33, KANYANAINI, KENYA**

Several self-employed men and women in the rural villages and low-income areas of these countries run small-scale enterprises. Every deal is crucial and mobile phones make it possible to create and maintain customer relationships.

**“I can actually earn money by using my mobile phone. That’s why most of my calls are business related. I know that even if I am going to spend 100 (Kenyan) shillings (USD 1.45), at the end of the day it is going to give me 1000 shillings back.”**

**ROGERS, 37, NAIROBI, KENYA**

There is a correlation between income and communication habits. Increased income and a desire to solve logistics issues are the main



reasons why people in low-income segments buy mobile phones.

When earnings are limited, calls are made strictly in relation to earning money.

When income increases, calls to family quickly become more frequent, longer, and take on a more emotional character. With higher income, most calls are to family, although calls to friends also increase. One reason is that people are employed to a larger extent and have less need to make the calls they previously made in the running of their small businesses.

Another important and related finding in the research is that the proportion of income spent on mobile phone calls is much higher among those with lower levels of income.

In addition to increased earnings for ordinary businesses, the network itself opens up the possibility for new sources of income. Enterprising people in rural areas can start up their own businesses without having to move to the city, and city dwellers can make a living from mobile-related businesses.

**Business centers:** Self-employment opportunities for people who might otherwise be idle.

**“Umbrella” operators:** It is estimated that 600,000 people are engaged in selling airtime in Nigeria today.

**Top-up cards:** New, increased revenues for shops, kiosks and other outlets, selling top-up cards, as well as income opportunities for people selling cards in the traffic.

**Repairs:** Self-employment for young men with technical qualifications and creative minds.

**Retailers:** Sales of new and second-hand mobile phones.

### Private calls strengthen family networks

The absence of a social security system means poor people have to rely on family to survive. Mobile phones as a means of communication are invaluable for maintaining family networks and calling for assistance. With no mobile network, it may take weeks before somebody can respond to a cry for help. The mobile network has made a dramatic difference. Communications have become easier, enabling all sorts of information to be passed on more easily.

There are three main reasons for making calls:

**General greetings** – finding out how people are.

**Family matters** – all kinds of family-related news: births, weddings, and funerals; financial difficulties; or problems with drugs, school or work.

**Support** – asking for advice or money.

**“We didn’t hear from my brother for three months, so we all agreed that I should go to see him. He had not been paid his salary for many months. That was why he hadn’t sent a messenger.”**

**FELIX, 38, ODUNA, NIGERIA**

The mobile phone also enables direct contact and privacy, which is a great advantage in densely populated cities. As phone calls within



low-income segments are used mainly to discuss important issues concerning monetary assistance, investments, and private family matters, privacy is a great concern. One advantage of having access to a mobile handset is that it offers privacy and enables direct contact – benefits that are unavailable when using a business center phone.

#### Pricing crucial for take-up

The single most important barrier to the continuous spread of mobile phone ownership and usage is money. Extremely poor households (earning less than USD 2 a day) will have problems finding the means to buy a handset, although there are cheap secondhand models for sale.

For households earning USD 3 and more, a mobile phone is within reach, and families may make joint efforts over a period of time to save up money to buy one. Some refrain from buying new clothes, others buy really cheap food or postpone purchases such as a TV or radio. Another option is to halt payments to parents back in the village. Even when they have mobile phones, low-income mobile phone users continue to use business centers and “umbrella” operators because

- they have no credit on their mobile phones and cannot afford to buy the cheapest top-up card;
- it is cheaper to call from a business center than to make a mobile phone call to another network; and
- it is cheaper to make international calls from a business center than from a mobile phone.

The benefit of mobile phones discussed here dramatically improve living conditions for poor people and increase their belief in a future for themselves and their families. Improved living conditions and a greater belief in the future result in reduced migration to the cities. A mobile network connects villagers with cities and with the rest of the world, making it possible to run efficient businesses in village regions, and to maintain social networks while still living in the village.

#### Saving outweigh call cost


*Puriti's family has experienced a drop in income since her husband was let go from his job at Barclays Bank in Nairobi two years ago. Puriti's husband is still in Nairobi doing casual work, while Puriti and the children live in Kanyanaini, where Puriti works as a teacher and takes care of their animals and small field. They earn some extra*

*money selling tea and eggs. Puriti also tries to save money by using a mobile phone to order fertilizer for the field. Fertilizer in the larger town of Kangema is 50 shillings cheaper per bag than in Kanyanaini. Puriti therefore calls a distributor in Kangema when she wants to place an order; the goods are delivered to her door. Puriti saves 50 shillings per bag when she buys five bags. This leads to a saving of 200 shillings – the phone call usually costs 50 shillings.*

#### Conclusions

Increased income and efficiency for very small businesses is the main driving force for buying a mobile phone within low-income segments. A mobile phone is affordable for households with a daily income of USD 3, whereas households with USD 1 per day or less cannot, in most cases, afford a mobile phones.

Lower values on pre-paid top-ups and cheaper handsets would make mobile phones even more accessible for low-income segments. Transfers of airtime and money via SMS open up the way for further development of financial services via mobile phones.

Low-income households provide great market potential for the telecom business community. It is a great challenge for operators, vendors, and regulators to make it simpler and easier to use the mobile. So make it happen – it changes people's lives. 

## the authors



**Håkan Jonasson** (hakan.jonasson@ericsson.com) is sales strategy manager and has been driving a project to understand the usage of mobile phones by people in the low income segment and to share the findings both externally and internally. Håkan also has extensive experience in sales and business development at Ericsson.

**Erik Kruse** (erik.kruse@ericsson.com) joined Ericsson in 2000 to provide strategic consultation within the area of consumer behavior. He is currently senior expert in consumer behavior at Ericsson ConsumerLab. He holds a degree in business administration and social sciences from the University of Uppsala (Sweden). He has also completed several graduate-level courses in business administration at the Stockholm School of Economics and Stockholm School of Business.