

Mobile Cell Phones and Poverty Reduction: Technology Spending Patterns and Poverty Level Change among Households in Uganda

Ms Kathleen Diga, M.Dev, B.Comm
International Development Research Centre

Email: kdiga@idrc.or.ke

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Abstract:

This case study examines the spending behaviour of households with mobile phones in rural Uganda and whether such strategies such as substitutions have affected the well-being of these community members. According to the findings, the challenges which rural households face include making sacrifices such as travel expenses and store-bought food budgets in order to pay the costs of mobile phone services. Findings also show that gender inequality through exacerbated asset control and mobile phone inexperience drive further digital divide in Katote, Uganda. However, in other cases, proliferation of small businesses development encourages phone ownership for women. Such strategies to afford a mobile phone or mobile phone services are undertaken to help facilitate long-term asset accumulation. For development studies, the analysis recommends a revised form of development thinking in a growing knowledge economy.

A Tool for Development

The recent introduction of mobile phone telephony in rural Uganda brings great change to its citizens. The country shows phenomenal uptake rates and the government is maturing in policy development and research in telecommunications. The price of the mobile phone handset and airtime services continue to drop dramatically in price and new mobile phone service businesses are sprouting throughout rural and urban areas as a result of improved legislation and establishment of a regulatory communications body. The Ugandan government reflects progressive policy to ensure services reach even the most rural and remote parts of the country under compliance to universal service regulation. Even with universal service obligations, the question remains if the most vulnerable are able to participate in the new knowledge economy and what other familial barriers are hampering the outreach of communications to the poor. With many of Uganda's positive conditions for telecommunication policy, further research needs to address how the mobile phone industry affects rural household livelihoods.

In this particular case study, there have been clear changes in spending strategies by households through substitutions and intra-household asset negotiation in the village of Katote, Uganda. These rural households, with its poor electricity, sanitation and water facilities and high education costs, continued to use their small variable incomes to build

their assets mainly consisting of houses, farming land, and more recently, the mobile phone. The availability of mobile phones and its services were more than adequate in the village of Katote and even on meager wages, have allowed the households to afford phone calls to their family and business associates. While better business opportunities have helped to increase some incomes to afford the mobile phone, most households have made sacrifices in their everyday lives in order to afford the communication costs.

While not clearly identified by most international agencies as a tool to development, the mobile phones become long-term economic growth investments for the disadvantaged as were the examples of families in Katote. The findings reveal households who happily cope with unpleasant sacrifices such as reduction of food consumption or sanitation in a perceived short-term. They hope that the mobile phone would improve their opportunities with income and jobs in the long-term. Regardless of whether the families are landless or property owners, both are highly vulnerable to making mainly short-term sacrifices of what is considered basic needs. However, in the long term, income security may improve if the mobile phones are utilised for productive work. The perception that the technology will provide future income and economic prosperity, thus justifies the manageable yet unpleasant loss for mobile phone ownership. There is a major willingness to pay now and see an improvement of their lives later. The perception of long-term improvement pushes both the landless and homeowners to invest in mobile phones.

One explanation for this is that mobile phones give people a sense of opportunity. No other expenditure in a household budget offers such potential for dramatic immediate change like this communication device. While improved access to food and sanitation would improve their livelihoods, if there is no mechanism to sustain or pay for these amenities, the poor remain in the same dire circumstances. Houses take a long time to build and large capital investments are not readily available to the poor. Improved food access and sanitation and new housing do not immediately help to improve job prospects nor move households to the next knowledge economy. All across Africa many developing countries are finding their citizens investing in mobile phone technology before meeting the needs of improved sanitation, water, health, housing and education. Citizens are creating a new form of development by improving the access to markets and jobs and are willing to make small short-term, unpleasant sacrifices if an economic improvement in their livelihoods can be seen with the mobile phone.

Mobile phone can also assist households when faced with unpredictable shocks which drive poverty. The probability of the family incurring drastic loss due to an unpredictable shock are mitigated and lowered when families are able to respond to the shock in more timely manners. The mobile phone can have the greatest effects on poverty reduction during vulnerable shock experiences through driving down costs associated to the shock. The families thus better financially manage and cope with the situation, incurring lower travel costs, more efficient action, improved access to information and less trauma. Immediate outcomes of income savings and cost mitigation are found particularly during vulnerable situations like death or illness in the family. Security increases for all families through reduced loss of property. A family's ability to lower the number of overnight hospital days or ability to avoid transport cost during desperate situations are major cost saving strategies implemented with the quick dial of the mobile phone to their family. The mobile phone helped mitigate the depth of poverty

experienced and reduces many costs which used to burden the poor. In the case before mobile phones, families would spend tremendous cost on travel and time in contacting family members about a funeral or sickness. From the results, Katote households agreed that this communication device provided a means of timely responses, reduced surprises with available information, allowed the ability to multi-task and plan during shocks, engaged less time to physically search individuals and less emotional stress during the really difficult ordeals.

An Obstacle to Development?

While there are many positive impacts that accompany access to mobile phones, there are also negative impacts. The idea that families are demonstrating sacrifices of basic needs such as food security and improved water or sanitation is, indeed, a potential obstacle to the perceived requirements for human development. The individuals with mobile phones are choosing to meet needs other than food, and in this case, they are selecting phone airtime over food. The assumption of meeting basic needs like food and sanitation are being challenged by the mobile phone. People are not simply passing through predetermined development phases as one would intuitively believe. The high value of the mobile phone reveals households re-prioritizing their perception of needs and forthrightly, “jumping phases” or choosing to address their communication needs instead of basic needs.

The assumption also arises that when an individual possesses a mobile phone, their basic needs have already been met. In the findings, one starts to find examples of families who are making the choice to own and maintain a mobile phone before feeding their family or finding improved sanitation and water sources. The research shows that people themselves are expressing their true needs versus what one would assume are urgent needs such as food and sanitation. Citizens are challenging this pre-set linear way of thinking of motivation and human development.

The findings also reveal continuous gender imbalance of mobile phone usage and spending through unequal partner control of the mobile phone and reduced well-being from unprofitable phone calls. Some households suffer under the exacerbated control of assets by the family’s income earner or household head. While some members are increasing their use of the mobile phone, the more vulnerable members feel that they are not benefiting from the new technology purchased. For example, some focus group women were limited in usage of the phone or they were put under escalated control by their partners. Certain household members rarely made use of the mobile phone while the household head maintained possession of the tool. Women, for example, have calls completed on their behalf as partners fear the overuse of their airtime. The fear may also develop from a perception of breakdown in head authority within households of this conservative community. These negative perceptions appear to re-enforced asset control particularly with the mobile phone within the household. Even in fruitful social calls with relatives, their own inefficient use of the tool directed the perception of mobile phones as not productive and in fact, inducing poverty unto their family. As this case study was limited to only one geographical area, such research could further investigate the asset portfolios and spending behaviour changes in other rural poor areas either in Uganda or other developing country regions.

Implications of the Katote Case Study

This study clearly helps to re-emphasize the need to explore beyond income poverty and examine new poverty dimensions such as asset portfolios. ICT4D studies can use this study as another socio-economic contribution to a generally techno-centric field. Further investigation on technology such as the mobile phone effects on poverty can assist the direction of a country's poverty reduction plan as well as the current thinking of development by international agencies. As mobile phone growth increases in developing countries, the intuitive thinking of basic human needs for the poor may need to be re-evaluated. If people are able to own or use a mobile phone yet choose not to improve the state of sanitation or water sources, it is a clear case to re-analyse the assumptions that currently exist within development studies of what is necessary within these household's livelihoods. Policy should understand the reasons for sacrifices being made by poor households and make provision for assistance if necessary. Provisions that help improve business opportunities as has been seen from increase of public call box businesses (as a result of eliminating business license fees for such business) must be promoted. Development agencies and government must thus see a paradigm shift of what they consider development and what indicators they use to judge whether a country should or should not be funded. Many agencies may find it a non-priority to examine ICTs when they assume, in their own development frameworks, that helping households with their basic needs is what is most needed. Yet in this example, one finds a strong increase of mobile phone usage when families maintain the same dire development indicators of low electricity, poor water access and low education levels. A country with increasing mobile phone access may benefit on further study to monitor the speed of development changes of well being as a result of technology.

This study has suggested that the diversification of assets for the disadvantaged will help to improve the livelihoods. The alternatives for low-income families are limited. While the mobile phone is one option to enhance asset expansion, other asset accumulating initiatives must also gain fair publicity such as communal or cooperative garden plots or expansion of the free education program. The disadvantaged must also be part of the knowledge economy and not fall deeper in to the digital divide. This study only cuts a small niche in an area of new research of ICT4D with emphasis on the development of people instead of technology. Further research is imperative to ensure that rural livelihoods are not left behind in this fast-moving environment of change towards the knowledge economy.