

## **Mobiles at the Base of the Pyramid**

*infoDev Project Concept Note (August 2011)*

### **Background**

The adoption of mobile devices continues to grow around the world but, as the global user base spreads beyond the current five billion, it is increasingly amongst communities at the “base of the pyramid” (BOP) where new users are to be found. Studies by the World Bank, CGAP, LIRNEasia and others have pointed to the need for innovative services, technological solutions, business models and policies that would facilitate the realization of this potential. They show that poor people are frequently prioritizing mobile phone ownership over acquisition of other products, services or resources, and are willing to spend up to 20 per cent of their income to keep in touch and as a source of work. Mobile usage at the BOP, among those who live on less than \$2.5 per day, has distinctive features, such as the use of missed calls, multiple SIM cards and no-credit accounts. But mobile phone ownership also holds significant potential for economic empowerment. It is critical, therefore, to understand actual and potential usage patterns among BOP communities. Relying in part on the expertise of the five *infoDev* regional mobile application labs, or mLabs, launched as part of the Ministry for Foreign Affairs of Finland / *infoDev* / Nokia program on *Creating Sustainable Businesses in the Knowledge Economy*, this new analytical project seeks to explore in detail the demand for innovative mobile applications, services and products with the potential to increase economic opportunities for users at the BOP, and to present concrete options for new and scalable product and service development.

### **Objectives**

The key objectives for the study are the following:

- To increase understanding of the actual usage of mobile services, products and applications at the Base of the Pyramid and to understand their potential for economic (and social) empowerment;
- To identify scalable examples of services, products and applications at the concept, prototype or early product development stages;
- To develop tools and instruments to map viable operation models and logics of various segments of BoP markets and to identify user needs.
- To formulate recommendations for business planning and policy development that can support this potential.

### **Scope of work**

The research will include five country case studies, with Kenya and South Africa covered in Phase I, followed by Armenia, Pakistan and Vietnam in Phase II. In each case, the work will include:

- A review of relevant literature and existing research, pertaining directly to the regions of focus;
- Analysis of the size and segmentation of the potential BOP market and the

- use/applicability of mobile technology;
- Analysis of the potential of the mobile technology to foster access and service delivery in selected markets;
  - Preliminary analysis of the potential of the mobile technology (and related ICT) industry to create employment and foster other economic opportunities in selected BoP markets, including via non-traditional activity such as micro-work;
  - Primary research on the usage of mobile services, products and applications by a sample of users at the Base of the Pyramid in selected markets, using a diary-based survey methodology;
  - Survey of existing services, products and applications targeting users at the Base of the Pyramid in selected markets, and an evaluation of their scalability; Services, products and applications targeting non-BOP users that can be appropriately adjusted for the BOP market will be included where possible; This survey may highlight the successes of some mobile network operators (e.g. Bharti Airtel, Safaricom) and their experience with new market segments, including BOP. Failed models may prove equally important to document and informative.
  - Survey of existing services, products and applications targeting users at the Base of the Pyramid in selected markets; an evaluation of their scalability that can be appropriately adjusted for the non-BOP market will be included where possible;
  - Survey of business plans for the provision of services, products and applications in the BOP market, and an evaluation of barriers and critical success factors for each approach.
  - Survey and discussion of regulatory issues as they relate to the findings. In particular, the studies will consider potential impact of universal service programs (e.g. universal access funds or other subsidiary mechanisms), network capacity limitations and backbone management practices.

Where possible, a list of Performance Indicators (PIs) will be included.

Based on a synthesis of the above components, each study will produce business planning and policy recommendations with the goal of increasing the potential of the mobile industry to create economic opportunity in the BOP segment in selected markets. The study will also highlight promising BOP-targeted solutions.

This project will be implemented in three phases:

- The first phase will include country case studies in Kenya and South Africa.
- The second phase will focus on an additional three countries, namely Armenia, Pakistan and Vietnam.
- The third phase will review all case studies and produce a summary discussion paper based on recommendations of the studies and will focus on dissemination and exploration of potential partnerships and projects based on the findings, including through a workshop in June 2012. This discussion paper may also suggest additional markets which may have innovation potential but which were not included in this study due to scope and funding limitations.

## **Expected Impact**

The impact of the study will be twofold: First, each study will serve as a locally relevant, practical resource for local entrepreneurs, policy-makers and investors interested in the BOP market. The collection of cases and overall analysis will distill general lessons and recommendations that are intended to be of value beyond the specific countries studied. More broadly, the studies will contribute to understanding the economic and employment potential of the mobile industry among the poorest segment of the user base, and will explore the transformational potential of mobile applications in reducing poverty.

## **Methodology**

While the successful bidder is expected to develop the appropriate methodology, it is expected that the study will build on on existing work completed by LIRNEasia between 2005-2011, with funding from IDRC, which utilized diary surveys and interviews to collect information about usage of ICTs by BOP communities in six Asian economies (see: <http://lirneasia.net/projects/icts-the-bottom-of-the-pyramid/>). The diary method includes a placing interview, important for explaining the diary keeping procedures to the respondent; a mid-stage interview and a concluding interview may be used to explore topics in more detail and check on progress. Desk research of secondary sources (including, for instance household diaries such as those documented in Portfolios of the Poor) and elite expert interviews are likely additional methodologies to be used in the studies; other methods of data collection and analysis will be proposed and evaluated in the initial stages of the project. The successful bidder will design a methodology that enables triangulation of findings. infoDev's mLabs may prove useful points of data collection.

## **Outputs**

The studies will uncover mobile usage trends at the BOP in each country and explore the role and potential of mobile devices for economic value generation through innovative micro and small business models. The studies will include examples of practical and scalable mobile-enabled products, services and business models, which will be published, shared and discussed with development practitioners, mobile operators and handset manufacturers, mobile applications developers and policy-makers at a workshop in 2012. They will also provide a baseline for future research.

The written outputs will include

- Five stand-alone country case studies
- A synthesis of lessons and recommendations with broader relevance
- Proceedings of the workshop to discuss research results
- A methodology for interested parties to map potential BoP markets/conduct market research and elaborate entry strategies in this segment.

## **Dissemination Plan**

Each study will identify a list of relevant stakeholders (e.g. development practitioners, mobile operators and handset manufacturers, mobile applications developers, policy-makers) in its country of focus who will be invited to provide feedback at the draft and final stages of research, and who will be invited to share the research outputs with their networks. All final components of the study will be available for free download via the *infoDev.org* website, and broadly disseminated to partners and donors via *infoDev*'s newsletter and a press release. *infoDev* will also share the study broadly with the World Bank community as well as specific World Bank Group colleagues whose work relates to the topics covered.

## **Relevance to Work Program and Priorities**

The studies focus squarely on the potential of the mobile platform to deliver economic empowerment to the poorest segment in society and fits well into the effort to draw attention to the issue via the World Bank's 2012 Information and Communication for Development report. Further, the project is directly in line with the World Bank's overall strategic goal to support development of the poor through employment in their own businesses or on wages earned through employment. More specifically, the study contributes to the goals of improving infrastructure services for private sector development and provision of support to small and medium enterprises (SMEs). The study will also contribute to the goal of informing regulation and competition policy. The study will inform ongoing work of the World Bank on the use of mobiles as a service delivery platform, and for data collection, project monitoring, reporting and evaluation. In particular, it will complement work by the ICT Sector Unit on developing a knowledge platform on ICT for accountability of service delivery. The study will also assist in providing models for operationalising the forthcoming new global ICT strategy of the WBG.

## **Sources of Funding**

The study will leverage funds from the UK Department for International Development (for the *infoDev Connect* program) and the Creating Sustainable Businesses for the Knowledge Economy partnership between the Government of Finland, Nokia and *infoDev*. In addition, an application has been lodged for additional funding from the Korea Trust Fund for ICT4D. If successful, this will be used for Phase 2 research.

## **Timeline**

- Phase 0: Revision and approval of PCN – August 2011
- Phase 1: September– April 2011: Commissioning and completion of country case studies in Kenya and South Africa
- Phase 2: January – June 2012: Commissioning and completion of country case studies in Armenia, Pakistan and Vietnam. If possible, preliminary results will be discussed at the Open Africa Innovation Summit in early 2012.
- Phase 3: June - December 2012: Review of all case studies and production of a summary discussion paper based on recommendations of each study. Dissemination and workshop.

## **Risks and Mitigation**

A complex, cross-country analytical study brings with it a number of operational risks, notably associated with the allocation of contracts for survey research. There is a danger that the individual country studies will vary too much to be comparable. For that reason, a decision to phase the studies (Africa first, followed by the rest of the world) has been made, and centralized control over the survey methodology and questionnaire design will be exerted through the procurement process. A further risk is that it may be hard to identify and work with true base of the pyramid populations. Again, close attention to this issue will be paid during the procurement process and survey design.

The study team may encounter difficulties in reaching the illiterate population, politically or socially disenfranchised or segregated groups, and other communities (e.g. people with disabilities).

As this is an important and little researched topic, the possibility of overlap with related work exists; in order to mitigate this risk, the author(s) will attempt to seek linkages with known past and ongoing project teams, including, for example, the Finnish BoP project funded by TEKES and conducted by Aalto University and the mobile studies coordinated by the IDRC.

In the analysis, special consideration will be needed for privacy and information security concerns of the poor, who may not be aware of or highly motivated to state them.

In order to ensure relevance of the study, it will also be important to define the base of the pyramid segment carefully and to contrast it with other definition of “the poorest” – specifically the US\$1.25/day measure used by the World Bank Group. A discussion of why the particular definition was used and how it relates to differences between user subgroups will be helpful here.

## **Project team**

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