



MOBILE APPLICATIONS FOR DEVELOPMENT (APPS4D):



THE NEXT KEY MICRO-ENTERPRISE DEVELOPMENT STRATEGY?

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The Mobile Applications Revolution

Since its inception in 2008, Apple's App Store has grown to more than 150,000 available applications and approaching three billion downloads. Along with similar platforms for competing operating systems (OS), including Android, Symbian and the next generation Windows, smart phone usage is exploding in the U.S – growing 193% in the last year alone according to *The Wall Street Journal*. The market for mobile application (apps) is projected to reach nearly \$20 billion by the year 2015¹. The vast majority of apps developers are either micro- or small businesses with less than ten employees.

For most of the last two decades USAID and other donors have largely looked at ICT as a tool for delivering content or supporting improved productivity. Rarely, has ICT been viewed as a catalyst for entrepreneurship. Given the exponential growth of mobile apps in mature markets, the question is whether mobile apps offer a unique opportunity for micro-enterprise development in developing countries? More importantly, can donors capitalize on the mobile apps revolution to promote the growth of micro and small businesses?

Certainly, the fundamentals appear to be in place. Following the pattern of GSM phones earlier this decade smartphones appear poised for similar geometric levels of growth in the developing world. As 3G networks proliferate in emerging markets and smart phone handset prices drop to the \$50 range (Nokia just announced a \$69 smartphone and other manufacturers are expected to announce \$50 range handsets in 2010), it appears that the mobile applications market in developing countries will experience explosive growth.

Mobile Applications: A Micro-Enterprise Growth Opportunity?

For development agencies interested in promoting micro- and small enterprise development, such as USAID and the World Bank, the smart phone revolution and the proliferation of mobile applications represent a unique opportunity to leverage an emergent technology to kick start small high-tech entrepreneurs in de-

veloping countries. From an SME development perspective, the mobile applications market looks promising for several reasons:

- **Low Technical Skills Barriers.** While some PC knowledge is required, the proliferation of Software Developer Kits (SDKs) with standard plug-ins makes the technical barriers for developing applications very low. This makes mobile apps ideal for youth entrepreneurship programs.



Mobile Applications do not require advanced computer skills and are very low cost to develop

- **Low Investment Threshold.** Developing mobile apps requires very little capital expenditure: an up to date PC and an SDK are all that a small company needs to get started. Handset firms and carriers offer testing platforms for free. In the US, the typical mobile app costs between \$5,000-\$20,000 – virtually all of which is labor. Based on these figures, we believe in developing countries similar applications could be developed in the \$400-\$3000 range. At this price point, financing of mobile apps can be provided through existing micro-finance institutions.
- **Speed to Market.** Most mobile applications can be developed in the space of a few weeks, allowing an entrepreneur to introduce his/her application to the market very rapidly.
- **Market Access.** Apple's App Store has led the way, but similar applications marketplaces offer a zero cost approach to market access for developers. Google,

¹ National Public Radio Report, April 20, 2010.

for example, recently announced its new apps store for Google Chrome and Android applications. Simply upload the application to the platform and the application is available to any consumer using the platform. In larger countries, such as Vietnam, Indonesia, Pakistan and Nigeria, the markets utilizing these platforms will be truly enormous. Suddenly, a rural apps developer in Punjab can access market opportunities, not only in his/her community, but in major urban centers as well.

- **Ease of Payment.** In developed markets, mobile applications are paid for with a credit card (referred to as post-paid). In emerging markets, it is likely that carriers will continue reliance on pre-paid systems, typically using widely available scratch cards. The apps market place simply needs to be included in that existing payments system –something the mobile carriers have a strong incentive to do.

While the mobile applications market appears to hold great potential for micro- and small business development, it is not without challenges. Here are three issues regarding the potential of mobile applications to serve as a catalyst for Micro/SME development:

- **Low ROI.** The Apple Apps Store experience demonstrates that many applications struggle to earn a return on investment (ROI) based purely on applications sales. Instead, developers are using other product tie-ins and advertising to ‘monetize’ their applications. One reason for the low ROI in the US is high labor costs (the single largest input in application development). In emerging markets with low labor costs this should be less of an issue.

- **Dependent on 3G licenses and networks.** While 3G networks are proliferating at a rapid pace, some countries, such as India, have been slow to approve 3G licenses. The costs and complexity of 3G deployment also means that network build-out will be slower in some markets or in rural areas.

- **Small Countries = Small Markets.** While some applications are global phenomena, most mobile apps are highly localized by virtue of language and the focus on locally relevant content/service. Thus, in smaller countries the

mobile applications market may be too small for it to be an engine for economic growth.

Mobile Applications: A Golden Opportunity for Public-Private Alliances

The mobile apps revolution represents a unique opportunity for public-private sector collaboration because industry business interests are closely aligned with development agency and host-country government objectives: a rapidly growing mobile apps ecosystem creates businesses, puts young professionals to work and creates revenue opportunities for carriers, handset firms, OS firms and entrepreneurs alike.

Who are the potential industry partners? Operating System firms, such as Google, Palm and Microsoft are obvious candidates. In addition, handset manufacturers such as Nokia, Motorola and HTC, also have a strong interest in seeing a robust and affordable mobile applications market in developing countries. Lastly, the carriers themselves, such as Safaricom, Bharti and MTN, have a considerable stake in the success of mobile apps in their markets.



It is important to note that donors can not only use mobile apps as an SME development tool, but also as a tool to support other development objectives in areas such as health, education and government service delivery through support for the creation of market-driven apps in these areas.

Mobile Applications for Development (Apps4D): Getting Ahead of the Curve

While many in the development community celebrate the use of SMS text messaging in development projects, the simple fact is that donors were rather late to the party. SMS had been around for more than 15 years before the first SMS tools for development emerged. In the case of mobile applications, donors have a unique opportunity to leverage and shape the introduction of a new technology such that it plays a much more constructive role in supporting the overall economic growth of a developing country. By getting ahead of the curve on Apps4D, donors can both promote new forms of entrepreneurship and leverage private sector investment.



About the Authors

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Photos courtesy of the World Bank.