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A Response to "A Dialogue on ICTs, Human Development, Growth and Poverty Reduction"

Essay by [Rohan Samarajiva](#), September 11, 2009 in response to [A Dialogue on ICTs, Human Development, Growth, and Poverty Reduction](#)

1.0 What has changed since 2003?

Many things, but the most significant in terms of developing countries is the transformation of the role and position of mobile networks and services.

The industry dynamics around the mobile have changed with mobile equipment manufacturers (network and handset) and mobile operators getting into the telecom industry's driver's seat in terms of investment, innovation and thought leadership, and new actors such as Google and Apple making their presence felt in the mobile space. Network technology has changed, with the momentum, in terms of how people will access the functionalities currently associated with the Internet, shifting to EDGE and HSPA/HSDPA networks and away from ADSL and other wireguided media and WiMAX in many developing-country markets. There appears to be a powerful trend of convergence whereby mobile handsets are becoming smarter and easier to use on one side and laptops are becoming more like handsets (e.g., netbooks with embedded SIM cards) on the other.

The recognition that providing information and related services on an as-needed, where-needed basis is superior to having farmers or other "beneficiaries" drop whatever they are doing to visit telecenters that have opening and closing hours is beginning to give rise to new approaches to service delivery. India's Warana Unwired project that is being rolled out on a larger scale in Vietnam is a good example.

Especially in developing countries, m-payments are beginning to assume the role played by credit cards in developed countries (Kenya's M-Pesa is leading the way). The mobile may supplant the PC as the central interface. The trajectory of ICT development in the developing world will not be the same as in the developed world. Indeed, the trajectories in South Asia and Africa may differ even from the rest of the developing world.

Perhaps most important is the new "budget telecom network" business model that was first implemented by South Asian mobile operators for voice and is now being extended to other regions and across services (Nokia, 2008). This model includes a number of elements including reduced transaction costs that allow long-tail markets to be addressed, prepaid cards and electronic reloads that allow irregular payments by people with irregular income, and significant innovations in reducing operational costs. It is akin to the Budget Airline model that allows airlines such as RyanAir and Air Asia to make profits while offering low prices. It increases the volatility of the profits and also results in patchy quality of service.

2.0 What is the key lesson for those promoting the supply of public/merit goods related to codification and dissemination of knowledge and building/maintenance of relationships?

The conclusion reached in 2003 that the policy and regulatory solutions must fit the institutional

circumstances still holds. This has been known since the 1990s (Levy & Spiller, 1994), but the nature of national reform processes has resulted in this principle being observed in the breach. The considerable experience that has been gained with reform and regulation in the developing countries is now generating "home-grown" alternative policy and regulatory solutions, but they must now battle with the over- and under-the-table rent-seeking incentives that have increasingly come to the fore as a result of the "golden eggs" being produced by ICT infrastructure services.

The institutional circumstances that must be taken into account in devising and implementing policy and regulatory solutions must include the prevalent business model. In countries where the budget telecom network model is prevalent or is being encouraged, the policy and regulatory priorities must deviate from those that exist in developed economies, as required. For example, market entry and spectrum availability is a critical precondition for the success of the model and must therefore be given the highest priority. Flexibility of pricing is essential for the success of the model and alternatives are needed for conventional tariff regulation (Samarajiva & Iqbal, 2009). Multiple SIM use by prepaid customers, especially at the bottom of the pyramid and affinity-based marketing by operators are reducing the importance of interconnection and mobile number portability. However, the downward pressures on all cost elements and on retail prices makes attention to the terms and conditions of access to backhaul facilities and enforcement of rules against anti-competitive actions more important than in the past.

Policy makers and regulators must seek to understand and leverage the budget telecom network business model to achieve their policy objectives. Similarly, it is important that other actors who seek to advance the supply of public/merit goods that depend on the ICT infrastructure also understand and leverage the model. For example, advocating reliance on universal-service levies and funds at this point is counter-productive because the past decade's experience has shown that governments are incapable of disbursing the collected funds in timely and appropriate ways and that in many cases the end result is the taxation of poor mobile users for the benefit of the government and possibly fixed operators (Malik, 2008). While quality of service is important for effective delivery of ICT-based services, rigid regulation is not only likely to be ineffective, it may even result in stifling the budget telecom network model that has succeeded in giving service to millions without drawing on public investment or subsidies. New approaches that leverage the model to promote public/merit goods are needed.

The key lesson, therefore, is that policy and regulatory solutions must be devised taking into account institutional circumstances, including the business model.

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