Promoting Rapid Adoption of ICT and Behavioural Change in Rural Areas

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The spread of open source software is introducing open competition into the field of information and communication technology (ICT). Unless we familiarise ourselves with these technologies, we will not be able to reap the full benefits of ICT. The introduction of broadband meant that online content could be transmitted at speeds unthought of a decade ago. These technologies are blurring the lines between data, voice, and multimedia, making an open Internet a possibility. At the same time hardware is becoming smaller, more advanced, and mobile.

Despite global developments in ICT, its use in Nepal is limited mainly to metropolitan areas; even simple devices—mobile phones and SMS messages—for social or economic improvement in rural areas are not too widespread. Use of personal computers and Internet are limited in inaccessible areas; for reasons ranging from economic to lack of electricity, the absence of local service providers, and slow adoption of technologies.

Magnus Consulting Group Pvt Ltd, Nepal's first social enterprise, promotes ICT and ICT-based services in rural areas through its owns private-community-partnership (PCP) model. Previous attempts to establish ICT in rural areas through rural institutions – telecentres, or rural information centres, or community information centres – could not sustain these turnkey initiatives (IWB 2009). In 2005, Magnus assessed that unless a social enterprise could integrate business development and management capacity along with access to international opportunities in partnership with community-owned rural micro-finance institutions (MFIs), it would not be sustainable. In late 2006, Magnus partnered with Small Farmers' Agricultural Cooperatives Ltd (SFACL) to pilot its model in Chitwan and Jhapa districts. In a two-phase pilot, Magnus developed a localised finance software called Simple Finance (सरल वित्त) and demonstrated how, through ICT integration, investment can yield both tangible and intangible benefits. The investment itself seemed high at first, and investment entirely by SFACL was perceived as high-risk. By working with the cooperatives for a year, however, and demonstrating the software and how easily it could be used, financial transactions became substantially more efficient than before. Today, with 250 SFACLs in 50 districts, the partnership has crossed the century mark. SFACL managers and employees can now operate computers and software and manage their organisations with the help of ICT. The intervention has not only stimulated

| Coffee beans remained unsold for years | Demonstrating how tea is processed | Salang VDC SFACL employee operating a computer |

rapid adoption of ICT through demonstration, but also encouraged enterprise by establishing partnerships with a social enterprise, investing in new services targeted at its own community, and sharing the benefits.

Once the foundation was established, integrating ICT-based services or e-services became reasonably easy. In the second phase, Magnus is integrating and facilitating linkages with different services through both Internet and mobile phone technologies. Services include money transfer, and disseminating daily agricultural prices from Kathmandu, Pokhara, and Narayangadh through both Internet and SMS. Other services include Nepal Telecom's prepaid phone recharge, international market linkage of SFACL, coffee-marketing linkages, and national linkages for vegetables that members wish to market. Developing e-content is another unique service provided. Magnus has signed a letter of intent (LoI) with 15 e-content partners (including ICIMOD, Practical Action, Care Nepal, Family Health International, and the Agricultural Information and Communication Centre), from whom it collects published content, digitises and localises it as applicable, and uploads it to www.telecenters.org.np. The e-content is primarily in the agricultural, women's empowerment, employment, and education categories (adapted from the 2009 needs' assessment findings of the Asian Development Bank's project: Empowering rural areas through Community e-Centers.

The partnership model has been effective because the enterprise is a long-term PCP partner that serves the SFACLs through its seven regional offices: each SFACL has on average six hundred household members and a decade of experience with finance and investment. The strategy targets rural farmers who are willing to take a risk for improved access to services. As members they have a stake in service development and improvement. This level of integration guarantees the sustainability of ICT integration and its financial benefits and promotes its rapid adoption through strategic behavioural change.

There are challenges. First and foremost is the amount of time it takes SFACL's management committee to make decisions and to endorse and integrate the services. In the context of ICT being a new 'thing' in these areas, it is difficult for them to assess the level of risk. Hence usually the SFACL which is most proactive and willing to take risks is chosen and each service is piloted first to demonstrate, as in Phase I, that it actually works; and then it is scaled up. Demonstration is often a lengthy process and resources can diminish resulting in loss of the competitive advantage of first arrival. Second is the fact that local people cannot distinguish the good ICT products from the inferior, in particular, software. Local software developers

Installing a battery for a solar-powered computer system

compete by offering low costs but are not transparent about the quality, service, and strength of software architecture. This creates confusion and delays the service integration process. Third is the complexity of identifying the relevant services that each SFACL could offer in its working area and of developing a localised process to manage them. For example, SFACLs in Ilam and Jhapa districts produce 500,000 kg of tea every year. Therefore, services for these SFACLs are quite different from those in Arghakhachi district where coffee is grown.

Another challenge is the use of e-content. Farmers themselves might not have the resources to access the Internet and download daily prices; or they might not be empowered or skilled enough to use the information to their advantage in dealing with local contractors and commission agents. For this, SFACLs are trying to take on the roles of fielding agents between the world wide web and the farmers. Dhading and Makwanpur district SFACLs produce substantial amounts of vegetables that are marketed in Kathmandu. The SFACLs also field information about agro prices and help farmers use it to make good decisions.

Despite the challenges, the model is both replicable and scalable. Magnus managed Asian Development Bank's project for 'Empowering Rural Areas through Community e-Centres' by replicating the same model in six target areas. As a result, these centres are comparatively well sustained: Magnus regional offices provide customer services to them. The lesson learned from the experience is never to undermine the capacity of farmers. If we can demonstrate that ICT integration, irrespective of its cost, can be of benefit in financial terms, its adoption takes place surprisingly quickly. In fact farmers will even be willing to get a smart phone if we can convince them through demonstration.

Reference

WB (2009) Assessing Community Information Centres in Nepal. Washington DC: The World Bank