Bringing citizens closer to government: Is there a role for m-governance in Pakistan?

Introduction

Recent figures indicate that mobile phone penetration rates stand at almost 45 per cent in low-income countries and 76 per cent in lower-middle-income countries (ITU, 2011; UNDP, 2012). ‘No other technology has been in the hands of so many people in so many countries in such a short period of time’ (World Bank, 2008). In fact, globally, ‘more people now have more access to a mobile device than to justice or legal services’ (UNDP, 2012).

Harnessing these changes, m-governance enables cost-effective, timely delivery of information necessary for citizens to make informed, educated decisions – an important but often difficult responsibility of any government to discharge. M-governance is seen as a way of promoting democracy, accountability and transparency (Ghyasi and Kushchu, 2004), particularly in developing countries, not only through improvements in government to citizen (G2C) and citizen to government (C2G) communication, and efficiency gains among government agencies, but also through civil society use.

This article explores this potential with regard to Pakistan, where citizen–government communication is often shaped by deprivation and a lack of access to information and basic public services.

Benefits of m-governance

Mobile phones can reach remote areas where the infrastructure essential for internet or wired phone services is difficult to set up. Also relevant to such areas, mobile phones are usually inexpensive and fairly easy to use, much more so than computers and internet connections. Since operating mobile phones requires only basic literacy, barriers to entry are much lower than with other modern ICTs. The mobile platform has the capability to provide location-specific information, for instance with regard to emergency services, locating a nearby bank or ATM and accessing information regarding traffic and weather conditions in a locality (Vijayakumar, Sabarish and Krishnan, 2010).

Therefore, mobile technologies are starting to have an inefaceable impact on human development, improving democratic governance and other development areas such as health, education, agriculture, employment, crisis prevention and the environment (UNDP, 2012). Studies have suggested that increased mobile ownership is linked to higher economic growth (Vodafone, 2005; Vodafone and ICRIER, 2009). Also, its effect on economic growth is likely to be twice as large in developing countries as in developed ones because the starting point of infrastructure in poorer countries is so much lower in terms of the number of fixed lines and broadband access. It is possible for low-income countries to surpass the traditional infrastructure requirements, such as fixed lines, as mobile technologies have lower investment costs. Other benefits include increased telecom-based tax revenues, improved employment opportunities and overall increased productivity, with the addition of a flourishing telecommunications industry that attracts foreign direct investment (UNDP, 2012).

Police can use mobile phones to capture pictures and videos of crimes as they witness them, which can then make it easier for them to process the case and make informed decisions. A successful example of mobile usage in this particular way is that of Kerala, India, where an exclusive

Box 1: What is m-governance?

E-government refers to conventional government services made available to citizens through electronic means such as telephone, digital television, and internet connected computers and other devices (Ghyasi and Kushchu, 2004).

A complement to e-government rather than its replacement (Ghyasi and Kushchu, 2004), m-governance (mobile governance) concerns strategy and processes for delivering public services through wireless and mobile technologies, applications and devices to various users, which can potentially include all residents, government units and businesses (MCIT, 2011). In this respect, there are clearly overlaps with e-government. However, if ‘governance’ encompasses traditions and institutions by which authority is exercised, and the resultant communication with and between citizens (Kauffman, Kraay and Zoido-Lobatón, 1999), then m-governance is about more than service delivery: it becomes a part of civic and public life.
The scope of m-government in Pakistan

M-governance holds great promise for public service provision in Pakistan due to the large growth of the telecommunications sector in the country in recent years (see Figure 1), which has placed Pakistan among emerging East Asian economies like Malaysia and Singapore.

Pakistan has been one of the fastest growing markets among the emerging telecommunications markets, with its cellular mobile penetration surpassing that of its South Asian counterparts (PTA, 2008). Total subscribers crossed 108 million at the end of 2011 (ITU, 2012) and the number of subscribers has increased threefold since 2005 (see Table 1). In 2009, Pakistan’s cellular mobile penetration was 55.3 per cent, 10.8 per cent higher than that of its neighbour India and 18.7 per cent higher than Bangladesh (ibid). All of this compared to only 3.7 million internet subscribers, making the internet penetration rate 2.2 per cent by 2009 (ITU, 2012). These figures indicate that m-governance is a more viable option for successfully providing public services to citizens as compared to e-governance.

The economic dimension

The mobile-cellular price basket in Pakistan is 3.8 per cent of GNI per capita, significantly lower than that of fixed broadband and fixed telephone, which cost 16.2 per cent and 4.7 per cent of GNI per capita, respectively (ITU, 2011). Prices strongly influence how many people are able and willing to subscribe to a service. Combined with the fact that over 90 per cent of the population has access to cellular mobile service across the country – though access is greater in more densely populated localities – mobile telephony is increasingly affordable and accessible.

The mobile sector in the country has become a prime source of revenue, visible in the weight of mobile revenue in total telecommunications revenue, which, at 66 per cent in 2010, was the ninth highest in the world (ITU, 2011). Market shares of cellular mobile operations indicate that the market is moving towards perfect competition where the share of major operators is declining and new entrants are able to grab more share in the market (PTA, 2008), a positive trend for increasing mobile affordability and accessibility.

In 2011, the telecom sector attracted over US$79 million foreign direct investment (FDI) to the country, which is about five per cent of the total FDI landed in Pakistan that year (Ministry of Finance, 2012). M-government provision will lead to an increase in demand for mobile phones and services, providing incentive for further investment in the mobile handset and telecom industry. This may also lead to the creation of significant job opportunities. Presently, the telecom industry employs a significant portion of Pakistan’s working population by providing job opportunities, directly or indirectly, in a wide range of areas including call centres, telecom engineering, telecom sales, customer services, finance and accounting (PCP, 2012).

The political dimension

The Government of Pakistan has remained focused on maintaining macroeconomic stability and growth, and balancing regional development. The mobile-cellular segment of the telecommunications industry is considered an engine for growth in the country (PTA, 2007) and for connecting and opening up rural and vulnerable areas. The

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<th>Table 1: Mobile and internet statistics for Pakistan, 2011</th>
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<tbody>
<tr>
<td><strong>Mobile</strong></td>
</tr>
<tr>
<td>Mobile subscriptions per 100 inhabitants</td>
</tr>
<tr>
<td>61.61</td>
</tr>
<tr>
<td>Mobile-cellular telephone subscriptions</td>
</tr>
<tr>
<td>108,894,518</td>
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<tr>
<td>Percentage of population with mobile coverage</td>
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<tr>
<td>91</td>
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<tr>
<td>Ratio of mobile to internet subscriptions per 100 inhabitants</td>
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*Source: ITU World Telecommunication/ICT Indicators database*
The expansion of rural telecommunications has therefore been a high priority of the government and regulator (Naqi, 2003). The cornerstone of Pakistan’s telecommunications policy is to achieve sustainable development in the telecommunications sector through a market-based philosophy. Liberalisation of the mobile communications sector has spurred market growth. Major sector reforms first took effect in 2004 with the adoption of a new licensing framework, along with new guidelines on how mobile license auctions are conducted. This led to the creation of new pricing models to attract those remaining outside the market, particularly low-income earners who need more flexible and inexpensive services (Murthy, 2010). Market growth has also led operators to introduce new value-added mobile activities, including mobile banking, internet, libraries, utility bills payment, stock markets updates and GPRS services (ibid). In a largely rural country of 170 million, of which only some 16 million have individual bank accounts, the Government of Pakistan recognises the importance of the mobile money market. The government has been at the forefront of the debate on how best to regulate and guide the implementation of mobile banking through its branchless banking regulations.

The government is very open to e-government and m-government initiatives; for instance, the World Bank is working with government officials in the Punjab province to seek citizen feedback through mobile phone technology to improve transparency and accountability – known as the Punjab Model of Proactive Governance project (World Bank, 2012). Moreover, the country has issued Smart National Identity Cards – secure, multi-purpose identity cards based on biometric identity – and has the world’s largest biometric citizen database (NADRA, 2009), which provides a key enabler for ascertaining identity and authentication of users of e- and m-government services.

The mobile-cellular segment is the only telecom sector that showed an encouraging growth pattern during the economic recession years in Pakistan, and government revenues from the telecom sector in terms of taxes have been increasing continuously since 2004–05 after the liberalisation of the sector (ibid). The economic importance of the sector and the advantages of mobile phones for the development of the country’s agricultural sector – the primary driver of Pakistan’s economy – as well as for service delivery for rural areas, have been noted by the government, which has been keen to support developments in the mobile phone sector.

**Conclusion and recommendations**

Mobile applications cannot lead to any of the aforementioned advantages by themselves. Rather, they are catalysts that improve and expand development programming when used strategically and require a sound set of policies to help fully realise their potential. They are the gateway to communication between the poor and the government – allowing the poor to freely access public services, have a platform for their voices to be heard and have new opportunities of engaging in larger governance processes (UNDP, 2012).

To reach both the developed and under-developed parts of Pakistan, however, policies need to be designed and implemented in a way that fully exploits and utilises the potential of mobile technologies. It is essential that these policies support widespread access to information and service distribution so that it becomes possible to provide mobile services to the majority of Pakistan, which is comprised of geographically unfavourable and difficult to reach rural areas that are also usually un lucrative. It is also important to pay heed to infrastructure limitations as well as to the country’s literacy challenges when developing these policies, in order to diminish the digital divide.

The penetration, usability, affordability and mobility of mobile phones present significant opportunities to reach and tailor services to citizens all over Pakistan. However, further research is required to determine the relative opportunities and weaknesses of e-government and m-government in Pakistan in terms of improving government efficiency and service delivery, increasing transparency and strengthening accountability.

Pakistan’s m-governance system needs to be enhanced with careful deliberation and long-term planning by members of the government and ICT experts, and building a citizen-centric roadmap for m-governance in Pakistan should be the country’s first step. It is important for these planners and experts to understand the ways in which ICTs can help

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**Box 2: Key social indicators**

The average literacy rate is 54.9 per cent, this being the percentage of people over the age of 15 who can both read and write. It is therefore much more likely that a greater number of people are capable of successfully using mobile phones than computers.

Those living in geographically inaccessible and under-developed areas, where internet penetration is either non-existent or extremely low, constitute about 64 per cent of Pakistan’s population.

Women constitute about 22 per cent of Pakistan’s literate population. Alongside other gender barriers, this makes women even more unable to access and use computers. While surveys show that there is a huge gender disparity in the ownership of mobile phones in Pakistan – of all mobile owners only 27 per cent are female – mobile phone usage is roughly equal for both genders (48 per cent of women and 52 per cent of men) (PIPO, 2010 in Murthy, 2010).

Source: CIA Factbook 2010
improve development programming, with particular focus on connecting to the poor, marginalised, vulnerable and underserved through citizen-centric services.

References


