Telecoms Sector, Digital Bangladesh and Lessons from Korea

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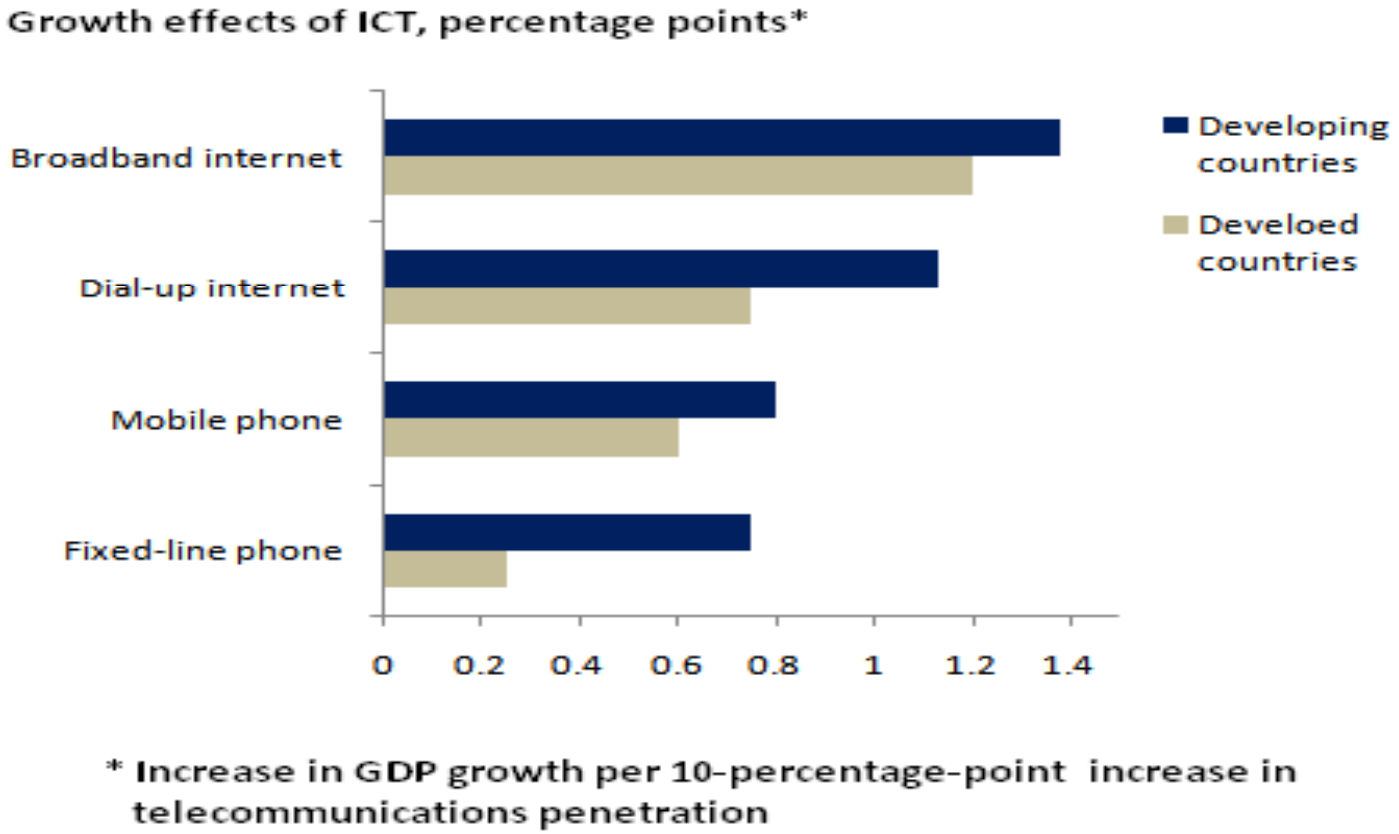
Digital Bangladesh

Key Strategy for Digital Bangladesh

- As part of its agenda to build a Digital Bangladesh, the government has identified the **mobile phone as a key medium** of electronic service delivery to citizens.
- Although, mobile phones and their many technology options are already being utilized by several agencies of the government, to truly utilize its true potential, an **effective and long-term partnership with the private sector** is essential.

Greater Broadband Penetration Largest Impact on Growth

- According to the World Bank, an extra 10 mobile phones per 100 people in a typical developing country added 0.6 percentage points of growth in GDP *per capita*, and this impact is about twice as large in developing countries than in developed countries.



Source: World Bank; Qiang 2009

The Economic Impact of Increased Internet Penetration/Broadband

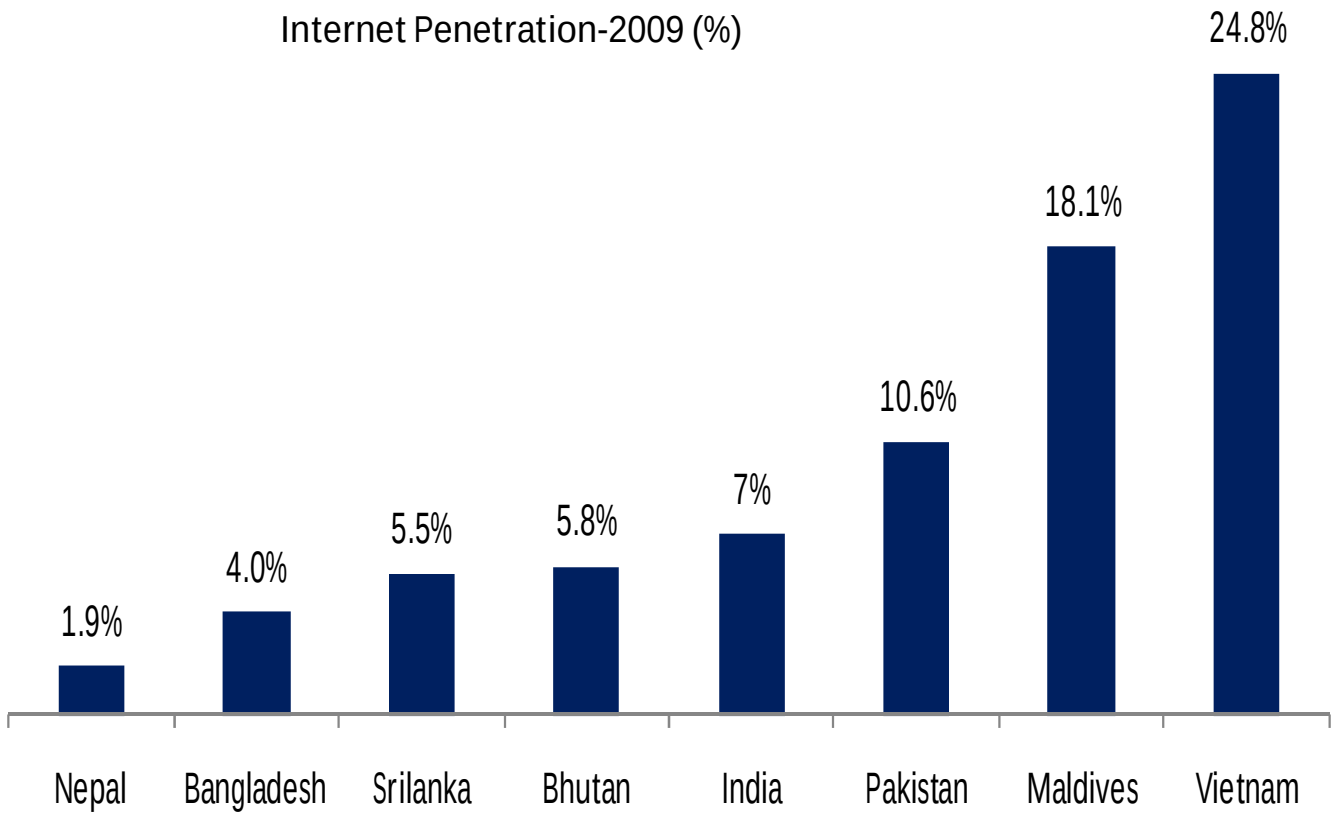
- A 1 % increase in the number of Internet users is correlated with a boost in exports of 4.3 %.

- The role of network users in the innovation process increases as they generate or contribute to new ideas (user-led innovation, or “the democratization of innovation”) and collectively develop new products (such as open source software).

- In terms of the impact on firms and the corporate sector, in developed economies, broadband is revolutionizing the print, movie, music, gaming, and advertising industries by enabling direct involvement by users in creating digital content.

Bangladesh has one of the lowest internet penetrations in the region

- Bangladesh has lowest internet penetration in the region other than Nepal



Source: GSMA

Constraints on Greater Internet Penetration

- **Poor quality and Fixed line coverage**, particularly outside of the core urban areas: Currently, approx. 90% of fixed lines are concentrated in the urban areas, where only 25% of the population live.

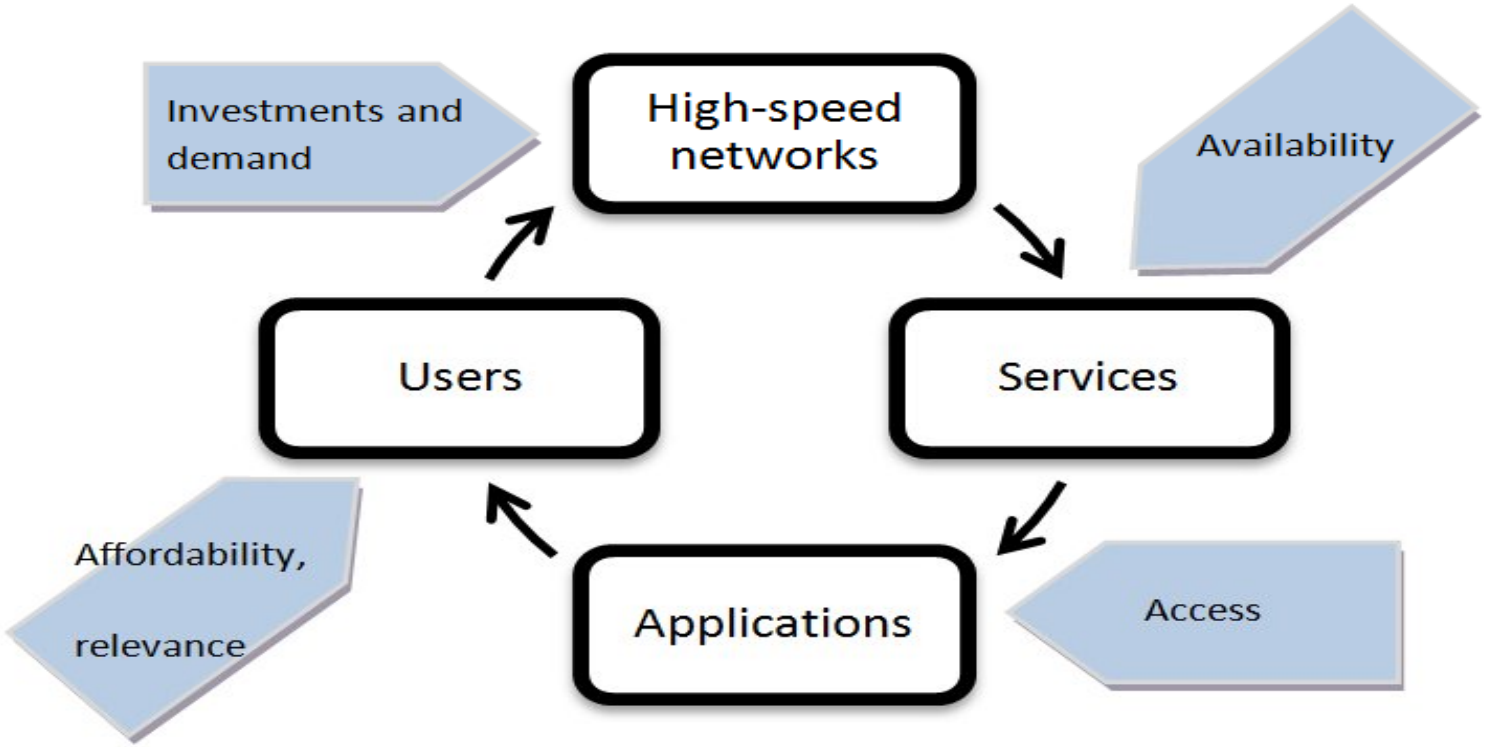
- **High access prices**: However, this appears to be improving as mobile operators have started to offer cheap pre-paid packages and the government has cut wholesale broadband costs.

- **Low awareness of the Internet and its benefits**: In a survey in 2007/08, 75% of rural Bangladeshis said that they were not aware of the Internet.

- **Low levels of literacy** in the country, particularly English literacy. Headcount literacy rates in Bangladesh are around 50%. Based on current interfaces, this is likely to be insufficient for someone to effectively access the Internet.

The Broadband Ecosystem

- Broadband ecosystem includes the networks that support high-speed data communication and the services these networks provide. It also includes the applications provided by these services and the users who are increasingly creating applications and content.



Lessons from Korea

Broadband Market Development in the Republic of Korea

- The Republic of Korea has seen a significant transformation, from less than 1 Internet user per 100 inhabitants in 1995 to one of the world‘s most highly penetrated broadband markets.

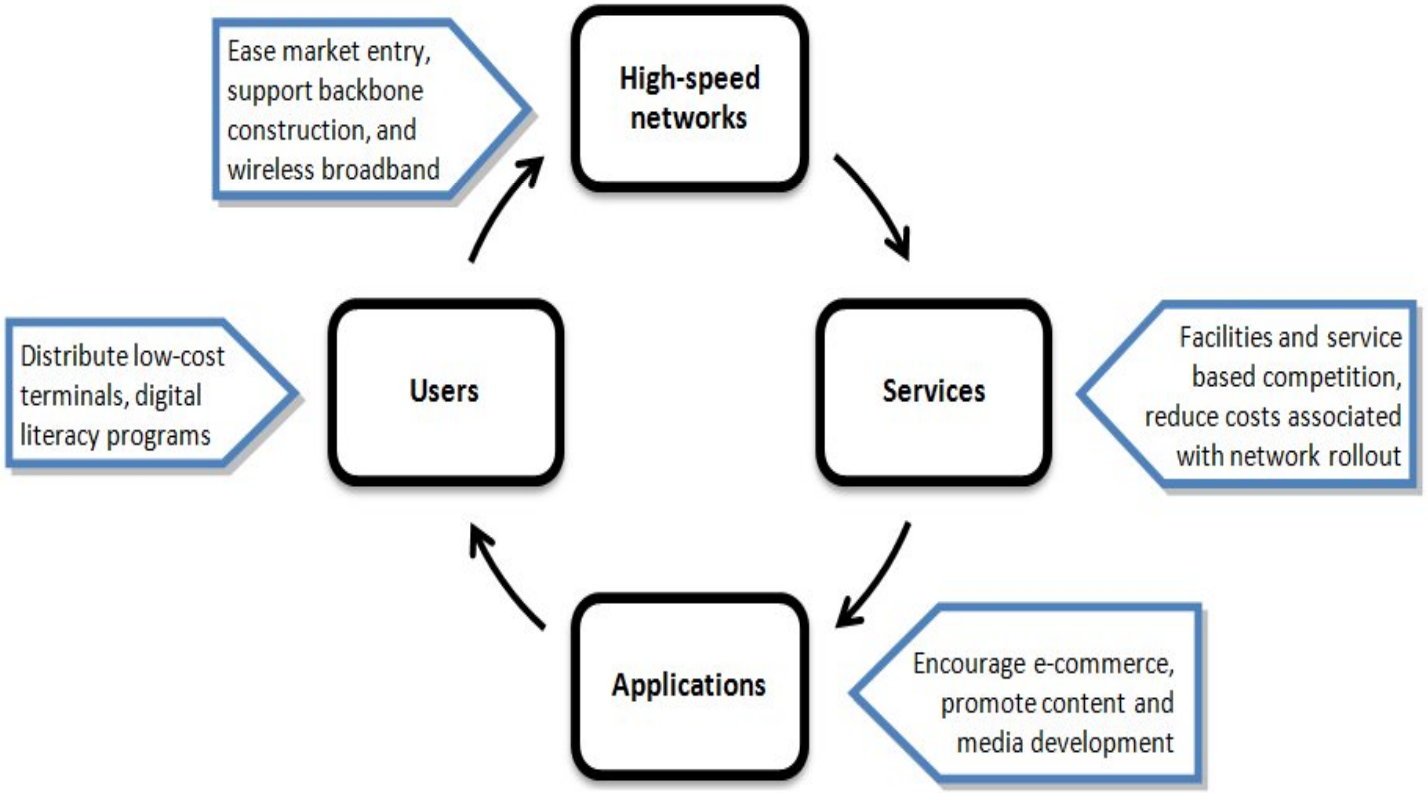
- By June 2009 fixed broadband penetration was 32 percent, and market penetration of 3G services was 77 subscribers per 100 inhabitants.

- Korea‘s exceptional success in developing broadband, and ICT generally, reflects a unique mix of highly competitive private-led markets and government leadership, use, support, and regulation.

- This is not the traditional model of other high-income countries, and comprises a unique balance between cooperation and governance.

Korea’s approach to developing the broadband ecosystem

- The government followed a holistic approach to developing the broadband ecosystem.
- Korea‘s approach : strategies, policies, programs to develop the four components of the broadband ecosystem (networks, services, applications, and users).



Korea’s approach to developing the broadband ecosystem

- Users were targeted by digital literacy campaigns, improved affordability, and applications development increased the value of broadband.
- Demand facilitation has also been a key part of Korea‘s approach.
- As uptake increased, there was a move toward more interactive services such as shopping, email, and participation in cyber communities, and today focus on music downloads and gaming.
- E-government, e-commerce, and e-learning are also important drivers of high broadband adoption in Korea.

Korea's approach to developing the broadband ecosystem

Formulating strategic development frameworks

- The Korean government's approach to promoting ICT in general and the broadband market in particular has involved formulating strategic development frameworks based on informatization master plans that run over a number of years.

In each framework the government defines supporting supply- and demand-side policies, such as:

- Plans for public investment in broadband infrastructure and incentives for private investment.
- Initiatives to aggregate and expand demand for broadband services.
- Policies to promote universal access to broadband.
- Supporting industrial policies.

Korea's approach to developing the broadband ecosystem

Informatization Promotion Fund

- The government created an **Informatization Promotion Fund** to finance projects that foster the use of information. The fund includes contributions from both the government and the private sector, through spectrum licensing fees, revenue-based contributions from operators, and earnings from the operation of the fund, including loans.
- Between 1993 and 2002 the total value of the Informatization Promotion Fund was $7.8 billion, almost half of which came from the private sector. The rest came from the government budget (39 percent) and sources such as spectrum auctions (15 percent).
- Money from the fund is used to support ICT-related R&D, develop and encourage standardization in the ICT industry, train ICT human resources, promote broadband network rollout, and promote e-government.

Supply-side policy

- **Through its informatization master plans, Korea has promoted supply-side broadband policies that can be categorized as:**
- **Infrastructure and application development policies.**
- **Content promotion policies.**
- **Industrial policies**
- **Regulation and competition policies.**

Korea’s approach to developing the broadband ecosystem

Demand-side policies

On the demand side, the government‘s broadband initiatives have included:

- Aggregating demand for broadband among public bodies to provide an established initial market for services.
- Promoting e-commerce as a way to facilitate widespread adoption of broadband by businesses.
- Providing key public services online and encouraging the development of applications such as e-learning to promote widespread public use of broadband.
- Implementing digital literacy initiatives to narrow the digital divide and ensure maximum participation in the broadband market.

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Policy Recommendations

Policy recommendations to Overcome the Problem

- **Wireless broadband**: In view of the constraints with a fixed network, wireless broadband could play an essential role in improving accessibility, particularly for sparsely populated and rural areas. The primary advantages of wireless broadband are its lower construction cost, shorter timeline for rollout, and lower costs for end users.

- **Provide schools with Internet access: I**n many cases it is the most cost-effective way to increase IT literacy and Internet awareness. The youths will generally be the most technologically savvy age group, and will also have the highest level of literacy, making them an ideal target group.

- **Infrastructure Improvement**: it is the final and perhaps most critical area to ensure that those who want to access the Internet are able to do so at a reasonable standard of quality. Many governments globally have announced programs to invest heavily in fixed broadband networks, led by Australia, which has committed to spend USD 30B over the next 8 years to build its national broadband network.