

Millennium Development Goals and Impact of mobile phones on GDP

Session II, SIL 802

9 January, 2015

1. Millennium Development Goals

are a UN initiative designed with the vision of achieving international development. All the member states along with some international organisations committed to help in achieve them by 2015.

Following are the eight MDGs :

1.1 To eradicate extreme poverty and hunger

1.1.1 MGNREGA-initiated with the objective of "enhancing livelihood security in rural areas by providing at least 100 days of guaranteed wage employment in a financial year, to every household whose adult members volunteer to do unskilled manual work".

Another aim of MGNREGA is to create durable assets (such as roads, canals, ponds, wells). It is to be implemented mainly by gram panchayats which can focus on development of infrastructure for water harvesting, drought relief and flood control by employing these applicants.

Apart from providing economic security and creating rural assets, it can also help in protecting the environment, empowering rural women, reducing rural-urban migration and fostering social equity, among others.

1.1.2 MAKE IN INDIA- The campaign is to give global recognition to Indian economy and to attract businesses from around the world to invest and manufacture in India.

This initiative focuses upon the heavy industries and public enterprises while generating employment, empowering secondary and tertiary sector and utilizing the human resource present in India.

1.1.3 Public distribution system- It is a scheme to distribute rations at a subsidized price to the poor. It involves identification of families below poverty line, issue of ration cards, supervision and monitoring the functioning of Fair price shops.

Under this scheme, each family below the poverty line is eligible for 35 kg of rice or wheat every month, while a household above the poverty line is entitled to 15 kg of food grain on a monthly basis.

1.1.4 Jan aahar yojana- Delhi government's scheme to provide low cost nutritious and hygienic meals to the needy at the rate of Rs.15 per meal in 36 different areas.

1.2 To achieve universal primary education

1.2.1 Right to Education Act- The Act makes education a fundamental right of every child between the ages of 6 and 14. It prohibits all unrecognised schools from practice, and makes provisions for no donation or capitation fees and no interview of the child or parent for admission.

1.2.2 Sarva Shiksha Abhiyan- In order to support Right to education act, Indian government designed this scheme with the aim of providing free elementary education to every child between the ages of 6 and 14.

1.3 To promote gender equality and empower women

1.3.1 Ladli Laxmi Yojana- The objective of this scheme is to lay a firm foundation of girls future through improvement in their educational and economic status and to bring about a positive change in social attitude towards birth of a girl.

Under this scheme the government purchases National Savings Certificate of Rs 6,000 each year for five years and these would be renewed from time to time. At the time of girl's admission in the sixth standard, Rs 2,000 and on admission in the ninth standard Rs 4,000 would be paid to the girl. When she gets admitted in the 11th standard she would receive Rs 7,500. During her higher secondary education she would get Rs 200 every month. On completion of 21 years she would receive the remaining amount, which would be more than Rs 1 lakh.

1.3.2 Strict rules against child marriage, Domestic violence, Dowry, Female infanticide etc.

1.3.3 Various schemes to promote education for girls like distribution of bicycles to class IX and class X girls belonging to rural areas.

1.4 To reduce child mortality

1.4.1 Integrated Child Development Services- It is India's primary social welfare scheme to tackle malnutrition and health problems in children below 6 years of age and their mothers.

Delivery of services under ICDS scheme is managed in an integrated manner through Anganwadi centres, its workers and helpers. The services of Immunisation, Health Check-up and Referral Services delivered through Public Health Infrastructure.

1.4.2 Midday Meal Scheme- It is a school meal programme designed to improve the nutritional status of school-age children nationwide. The programme supplies free lunches on working days for children in Primary and Upper Primary Classes in Government, Government Aided, Local Body, Education Guarantee Scheme, and Alternate Innovative Education Centres, Madarsa and Maqtabas supported under Sarva Shiksha Abhiyan, and National Child Labour Project schools run by the Ministry of Labour.

1.5 To improve maternal health

1.5.1 Janani Suraksha Yojana- This scheme encourages delivery of poor family's child in hospitals by giving cash assistance for delivery and post-delivery care. In this scheme, one important role is of the ASHA activist whose role can be of an encouraging person in the field to encourage institutional deliveries among the poor women. ASHA (Accredited Social Health Activist) activist is also given monetary benefit per institutional deliveries and post-delivery vaccination, immunization etc.

1.6 To combat HIV/AIDS, malaria, and other diseases

1.6.1 National Health Mission (NRHM)- It is an initiative undertaken by the government of India to address the health needs of underserved rural area.

Community Health volunteers called Accredited Social Health Activists (ASHAs) have been engaged under the mission for establishing a link between the community and the health system.

Free Drugs Service and Free Diagnostic Service are provided. Setting up of private clinics is also encouraged in rural areas.

1.7 To ensure environmental sustainability

1.8 To develop a global partnership for development

2. Impact of Telecom growth on GDP

2.1 For a developing country with 10% mobile penetration, a significant increase of 0.6% is witnessed in GDP .

While for developed countries, the mobile penetration did not have much impact on GDP rate which was because these countries were already equipped with good fixed line system. [1]

2.2 On the contrary GDP also depends on the social and cultural habits of citizen which is strongly presented in the survey conducted at Jamaica.

It was assumed that mobile phones are used for entrepreneurial activities or to obtain employment. But Jamaicans did not use mobile phones for either of the activities. Instead they used it to seek support (money) from others who have it in their social network. Hence the money that might have been used for capital accumulation is instead filtered downwards to help alleviate regular crises of poverty resulting in no significant rise in GDP rate. [2]

2.3 Case Study for Fishers-It reveals the connection between investments in telecommunications and economic development.

Using mobile phones at sea, fishermen are able to respond quickly to market demand and prevent unnecessary wastage of catch—fish being a highly perishable commodity—a common occurrence before the adoption of phones.

At the marketing end, mobile phones help coordinate supply and demand, and merchants and transporters are able to take advantage of the free flow of price information by catering to demand in undersupplied markets.

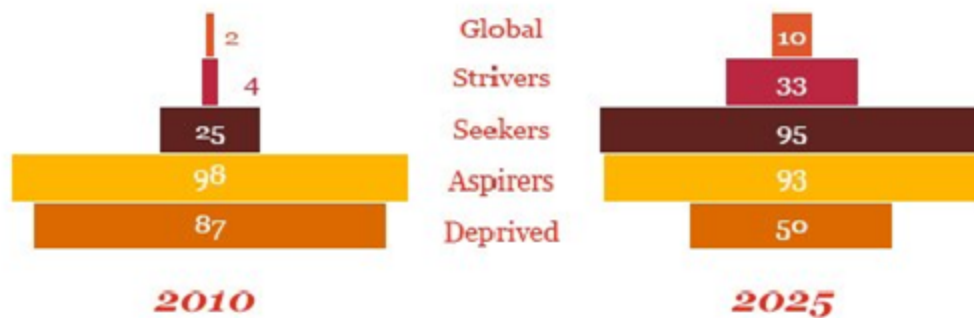
There is also far less wastage of time and resources in all segments of the fishing community. There is greater market integration; there are gains in productivity; and price dispersion and price fluctuations are reduced. [3]

2.4 Income Pyramid and economic mobility:

An upward drift is noticed in different class of income pyramid because of the exposure to mobile phones. Thus, India's population base by income is transforming from triangle with a large low income base into a diamond with a large middle class population.

Mckinsey assertion about the change in income pyramid can be viewed from [4]

*Households in India by income category (mn)**



3. Long-distance wireless links

These operate on free spectrum and are easily available in developing countries.

But wifi connection has some major issues at MAC layer which includes long RTT for ACK, collision problems, difficult error detection and correction etc .

The solution to these issues can be to disable ACK, use of inter FEC instead of intra-FEC, using TDMA to avoid collision, careful link planning etc.

Apart from the above mentioned technical challenges, there are other issues like poor power conditions, lightning strikes, link degradation, no feedback mechanism to diagnose problem etc.

The solutions to the above mentioned problems could be using directional antenna instead of omni (which are less likely to be affected from lightning), software watchdogs, multilevel field technicians etc.

4. References

[1] Waverman, Leonard, Meschi, Meloria, and Fuss, Melvyn. 2007. The impact of telecoms on economic growth in developing nations .Moving the Debate Forward: The Vodafone Policy Paper Series #3 2005.

<http://www.ictregulationtoolkit.org/en/toolkit/docs/Document/3532>

[2] Miller, D.2004. The unpredictable mobile phone. BT Technology Journal

http://www.ucl.ac.uk/anthropology/people/academic_staff/d_miller/mil-9

[3] Abraham, Reuben. . Mobile phones and economic development: Evidence from the fishing industry in India. The international conference on information and communications technologies and development, (ICTD 2006) conference proceedings. Berkeley, CA: IEEE.

<http://itidjournal.org/itid/article/download/241/111>

[4] Mckinsey India Consumer market

http://www.mckinsey.com/assets/dotcom/mgi/interactives/india_consumer_market/India_Interactive1.swf