Chapter 14
Role of Mobile Based Applications in India’s Social and Economic Transformation

Sunil Jose Gregory
Infosys Technologies Ltd., India

Gnanapriya Chidambaranathan
Infosys Technologies Ltd., India

Padma Kumar
Infosys Technologies Ltd., India

ABSTRACT
This article discusses the socio-economic impact of mobile telephony in a developing country like India. Emerging markets are experiencing technology leapfrogging in terms of telecom evolution and adaptation. While the rich and affluent use mobile technology to enhance their lifestyle, for the poor, mobile based applications can augment their daily livelihood. Due to economic compulsions, the focus of the market has been on mobile services and applications that belong to the primary category. This paper identifies the potential of livelihood enabling applications and describes successful global projects in livelihood enabling mobile applications in areas like mHealth, mEducation, mAgriculture, and mFinance. The paper concludes by identifying a set of challenges for developing livelihood enabling mobile apps in India and makes policy suggestions that can increase the viability of such mobile applications in India.

INTRODUCTION AND BACKGROUND
In September 2000, during the UN Millennium Summit, World nations adopted eight development goals called “Millennium Development Goals” or MDG to guide the global development in the 21st century. The summit also identified clear and quantifiable targets to be achieved in all countries against each of these goals by 2015. Since 2000, MDG has become the global standard for measuring the effectiveness and efficiency of international developmental efforts.

Till the last century, the currency to eradicating hunger, poverty and path to affluence was access to
natural resources such as land. In the 21st century timely information and knowledge has replaced the same to an extent. Today “Information & Communication Technologies” or ICT play a significant role in the socio-economic development. Though ICT cannot directly achieve the development goal targets, in many ways, it offers a unique path to achieving the same. The access, penetration and growth of information and communication technologies in the society have a major impact on how a person live, work, think and spend his or her leisure time. It has the potential to change the structure of society and economy. However there exists a significant information asymmetry between the developed, developing and least developed nations in terms of ICT infrastructure and access, ICT use and the intensity of use and ICT skills (or capacity necessary to use ICTs effectively). Table 1 gives a comparison between developed and developing nations.

The silver lining to the cloud is that liberalization and competition have enabled developing nations to “connectivity gap” at a rate of approximately two million new subscriptions per day. UN’s MDG report (2009) states that “by the end of 2007, there were more than 2 billion mobile cellular subscriptions in developing countries, translating into a penetration rate of 39 per cent.” India experienced significant investments and competition in the mobile telephony in the past few years. The primary drivers for mobility in India were accessibility and less dependence on the fundamental last mile infrastructure. Table 2 elaborates the growth of Telecom in India in the past 4 years.

However the human and infrastructural development indices give us a different picture. There are significant variations within various states/telecom circles of India. Even in the same state/circle, the tele-density, access to ICT and ICT usage varies significantly between the urban and rural areas. Table 3 shows the regional disparity within India in terms of per capita State domestic product, poverty and tele-density.

The econometric analysis done by Kathuria and Uppal (2009) suggests a causal relationship within the same country between higher mobile penetration and higher economic growth. Indian states with high mobile penetration can be expected to grow faster than those states with

Table 1. Comparison between developed and developing nations

<table>
<thead>
<tr>
<th>Country</th>
<th>HDI Rank (2009)</th>
<th>GDP (PPP)</th>
<th>ICT Development Index</th>
<th>IDI Sub-Index Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Norway</td>
<td>1</td>
<td>3</td>
<td>53269</td>
<td>6</td>
</tr>
<tr>
<td>Australia</td>
<td>2</td>
<td>14</td>
<td>37302</td>
<td>14</td>
</tr>
<tr>
<td>Iceland</td>
<td>3</td>
<td>15</td>
<td>37243</td>
<td>5</td>
</tr>
<tr>
<td>Canada</td>
<td>4</td>
<td>12</td>
<td>38290</td>
<td>19</td>
</tr>
<tr>
<td>Ireland</td>
<td>5</td>
<td>8</td>
<td>39441</td>
<td>18</td>
</tr>
<tr>
<td>Bhutan</td>
<td>132</td>
<td>104</td>
<td>5793</td>
<td>115</td>
</tr>
<tr>
<td>Laos</td>
<td>133</td>
<td>139</td>
<td>2217</td>
<td>117</td>
</tr>
<tr>
<td>India</td>
<td>134</td>
<td>128</td>
<td>2932</td>
<td>118</td>
</tr>
<tr>
<td>Republic of the Congo</td>
<td>136</td>
<td>180</td>
<td>334</td>
<td>132</td>
</tr>
<tr>
<td>Cambodia</td>
<td>137</td>
<td>145</td>
<td>2018</td>
<td>121</td>
</tr>
</tbody>
</table>

Related Content

The Role of Litigation in First-Mover Performance in M-Business
[www.igi-global.com/chapter/role-litigation-first-mover-performance/68565?camid=4v1a](www.igi-global.com/chapter/role-litigation-first-mover-performance/68565?camid=4v1a)

AGATHE: An Agent- and Ontology-Based System for Gathering Information about Restricted Web Domains
[www.igi-global.com/article/agathe-agent-ontology-based-system/3927?camid=4v1a](www.igi-global.com/article/agathe-agent-ontology-based-system/3927?camid=4v1a)

The Hispanic View of E-mail, Popup, and Banner Advertising
[www.igi-global.com/article/hispanic-view-mail-popup-banner/42135?camid=4v1a](www.igi-global.com/article/hispanic-view-mail-popup-banner/42135?camid=4v1a)

Developing a Global CRM Strategy
[www.igi-global.com/article/developing-global-crm-strategy/1883?camid=4v1a](www.igi-global.com/article/developing-global-crm-strategy/1883?camid=4v1a)