GrameenPhone Faces Problem in Rural Economy: 
A Case-study deals with ‘Rural Economy’

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ABSTRACT

Telecommunication industry is one of the most dynamic and vibrant sectors, especially for the developing nations that have a huge population. However, unlike the developed nations, the infrastructure and the political scenario of the developing countries, indeed, posits various challenges. The expansion of multinational businesses requires becoming aware of not only the cultural differences, but the governances with proper emphasize. The case study deals with the recent SIM Tax issues and underlines the prospect of ‘Mobile Operators’ in the rural economy of Bangladesh.

Keywords: Telecommunication Industry; SIM tax; Rural Marketing; Rural Banking

1. INTRODUCTION

"Definitely, there is a big market in the rural area. So, we are focusing on it," Anders Jensen, the CEO of Grameenphone, aforementioned this when he and other eminent officials made up the visit of Boro Koyer village in Gazipur in April 2008 (Star Business Report, 2008). The chief intent of the visit was to recognize the villagers’ communications demands and their experiences with mobile telephone, and to understand what Grameenphone could do to address those needs. GrameenPhone is the leading wireless operator of the country with a network that covers over ninety percent of the population. The Village Phone Program bears a
key effect particularly on the rural population, where low teledensity is considerably low. (See Exhibit Four for the highlights of what GrameenPhone has done in rural areas). The country's leading mobile phone operator is willing to increase the number of customers in rural areas, since the company thinks its future growth lies in rural areas. "We learn first about the need of villagers then we will decide what we could offer," he said. He told that in regard with the livelihood of rural people, and indicates that GP is planning cost effective mobile services for them.

2. THE RURAL ECONOMIC STRUCTURE OF BANGLADESH

2.1 Rural market dynamics

With more than seventy percent of the population inhabiting in the rural regions, Bangladesh can be easily considered as a giant village. The sixty-four percent of the agrarian population are under the age of thirty and seventy-seven percent of the whole population was born after the War of Liberation of 1971. Hence, it can be safely reasoned that it is the youth of today who are going to fuel the engine of growth (Hasan, 2009). The flow of information increases chiefly due to the flourished mobile phone coverage, and the cost of crop commercializing is likely to decrease, especially in remote regions where expected commercializing acquires from the expanded data flow is large (Bayes, 2000). Abul Bayes highlighted many interesting thoughts. First, every farmer no need to be the owner of a phone set, it can be collective effort, such as in some villages in Africa, cell-phones are hung from the branch of a tree and concerned persons can use it for certain fee. Second, to ensure the full gains the public authority and media need to address the need of the famers. Third, the telecommunication industry needs to form an information forum to be more effective. He said, “we indeed find that the network expansion has a larger impact in market participation in areas farther away from the district centers than in closer areas” (Bayes, 2009).

Approximately forty percent of the agrarian families in Bangladesh have access to cellular phones and about, twenty-five percent of the users are poor. Rickshaw pullers, fishers, SME traders or people as such use it to minimize the asymmetry of information and accelerate the speed of communication (Bayes, 2009). Out of one hundred and fifty million people, nearly fifty million people have access to cell-phones. Grameenphone, with about one-half of the market share, dominates the market. The rest is distributed among the five other companies (See Exhibit One for “Mobile Phone Subscribers in Bangladesh”). The tariffs are bit-by-bit coming down to a contending level. The price of mobile phone-sets has come down to an affordable level. It seems that mobile phones effectively reduced the marketing costs as well as price dispersions. It also begins to contribute in searching for jobs, managing disasters, and eventually improving the quality of life.

2.2 Impact of overseas remittance

The rural market's share of Fast Moving Consumption Goods (FMCG) remains accelerative all over the years. It has already exceeded the urban demand. This clearly implies the nature of the rapid growth in competent demand of the rural consumers in comparison to that of the urban counterparts. Hence, it is imperative for the market researchers to examine the nature and dynamics of the fast-changing patterns of consumption of the rural consumers.
A leading factor contributing to their steady growth of purchasing power is the actually
effect of phenomenal increase in overseas remittance. It is, as estimated, registered an
about six-fold increase over the last few decade. The country owes a debt of gratitude to the
migrant workers whose hard-earned earnings have made significant contribution towards
poverty-alleviation of the country in general and of the rural masses in particular. Another,
positive effect of such a huge remittance inflows is a substantial diminution in income
inequality between the rural and urban populations (See Exhibit Two for detail regarding the
issue of Remittance in Bangladesh).

2. 3. The Consumer Behavior of Rural Market

Various market studies uncover that consumers hold their own set of mannerisms and
tenets of beliefs that are profoundly rooted in their cultures. Therefore, the state with
conviction of what would work properly for one set of consumers, may not work at all for
another. It may even not work for the people who are living in the same geographical area,
because of distinct ethnic, religious and financial settings. Thus, prior to formulating a
commercializing scheme, it is peremptory for all marketers to realize the psyche of the target
market. Among the major differences between urban and rural consumer, one chief difference
is, urban buyer is an idiosyncratic; he purchases his stuff of his own free choice. Conversely,
the purchase decision-making in rural is largely a group act or a collective decision-making
and social approval plays a critical role. Further, the level of literacy is also a big divide.
While urban audiences can decide to buy a product after translating the product literature, the
same thing may not happen in case of rural buyers. For rural audiences, “seeing is believing”.
The rural Consumers can be divided into three distinct categories (Hasan, 2009). First, the
educated, upwardly mobile, middle-income, media-savvy category, with high aspirations and
considerable purchasing power, who are in many ways comparable to the urban population.
Second, the segment of the rural youth who have attained up to their higher secondary level of
education, thus have got some exposure to urban lifestyle, because they frequent visits to the
urban areas, access to modern amenities such as television, mobile phone, motor cycle and so
on. Third, the illiterate, ultra-poor and those, who have absolutely no access to the mass
media.

2. 4. Buying Process and the Predominant Role of the Rural Youth

Praveen Kashyap points out that the rural people may be illiterate, but that does not
mean they are unintelligent (Kashyap, 2002). Due to increasing media reach, aggressive
advertising campaigns and frequent inter-personal communication (which is comparatively
more common in the rural areas), rural consumers are quite familiar with the various products
and services available in the market. Khalid Hasan (2009) indicates that the buying process of
the rural consumers involves the following issues: “First, awareness of products and services
through TV, radio and, to a lesser extent, newspapers; the youth, who are often the first-
generation literates, assimilate more from such exposure because of their enthusiasm and
education. Second, through frequent visits to urban areas (for entertainment, treatment of
elders or employment), they are exposed to various brands of products and services. Third,
they, then, share their ideas with their peers and/or rural opinion leaders. Finally, these
informal discussions help the rural consumers to reach well-informed decisions on, not only
product, but also brand selection”. The marketers and the advertisers, while formulating their
campaigns, should avoid some mere hypothetical assumptions, rather carefully address (1) what do our rural population use (lifestyle), (2) What do they buy and why (brand specific) and (3) The extremely important role of the "youth opinion leaders" in the buying process.

3. THE SIM TAX ISSUE

The telecommunication industry in Bangladesh gets on the forefront of discussion and debate. One of the major potential threats to the industry is the burden of SIM tax and the duty on handset used. After the mobile technology has captured the urban dwellers, logically the next step would be to stride into rural regions. However, most mobile operators think that the SIM tax is the chief cause for them to remain in the red. This, they believe, is impeding their move to take over the rural consumers. The Daily Star, a prime news agency of the country arranged a roundtable discussion to talk about the issues of this industry and to dispatch the impediments on the path to a 'Digital Bangladesh' by 2021. The six mobile operators bestowed just about forty-seven million customers (See Exhibit One for the number of Subscribers of Six Operators). Of the total market, top three operators -- Grameenphone, Banglalink and AKTEL -- hold over ninety percent shares. Citycell, TeleTalk and Airtel are the bottom three players. Other than Grameenphone, none of the six operators is in profit. This obliged all the operators not to subsidize SIM tax, and in such situation, merger, consolidation or closure would the ultimate consequence.

3.1. The discussion

Mahfuz Anam, editor of The Daily Star, said that "Our future growth lies in the rural area. So any rationale for any cost cutting to penetrate the rural areas is the biggest justification. The real beauty of the mobile industry is that it is far bigger than its own economy. It is cultural, it is educational, it is heath, it is interpersonal, it is keeping yourself in touch with your friends and relatives, and listening to music that you like. It has a far bigger dimension." He also said, "I think we have failed to appreciate ... the enormity of the technology and diverse opportunities that it provides. That, I think, has also been a failure of the media. We are talking about political empowerment. Barack Obama practically won his election over the mobile telephone. He earned so much his election funding through mobile connectivity. The internet in mobile phone played a very big role in his election." "The VoIP incident damaged your image a bit. Our next target is expanding the telecom service into the rural areas,” he said. “It is linked with our vision of Digital Bangladesh, it is linked with our progress and it is linked with our becoming far more democratic society than we have been before. There are many dimensions today.” Nobel laureate Professor Muhammad Yunus indicated that VoIP could be used as an affective tool for poverty alleviation. Debapriya Bhattacharya of Centre for Policy Dialogue (CPD) highlighted three reasons behind the downslide in telecom industry growth in 2008; (1) Tax on SIM, (2) Price war among competitors and (3) The crackdown on illegal VoIP network.

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1 This is a transcript of actually roundtable discussion on Mobile Sector Growth Prospects. It took place on June 21, 2009 and published on the following day in The Daily Star, Article titled “Roundtable on Mobile Sector Growth Prospects, Time for telecom players to go rural” (published in June 22, 2009). The transcript is available online. To access, URL: http://archive.thedailystar.net/newDesign/news-details.php?nid=93673
Oddvar Hesjedal, Chief Executive Officer of Grameenphone indicated that as per the mobile operator's experiences in rolling operations out into rural areas, rural customers are not readily able to bear the Tk 800 per subscriber identity module (SIM) cost. Their spending traits differ from that of urban users and they are hesitant to spend even Tk 100 on the mobile phone a month. SIM subsidisation does not warrant that operators recover the money within a short time. It takes one and a half years, or even more, to recover the subsidized money from rural and some urban regions. Most interestingly, operators get nothing after bearing the SIM tax, as customers choose to switch to another operator in the mean time. In regards to the myth that mobile operators remit a huge amount of money abroad, Hesjedal said an insignificant amount of money is remitted. In contrast, ample amount of foreign direct investments enter each year into the country through the mobile sector.

Ahmed Abou Doma, Chief Executive Officer, Banglalink indicated that SIM tax contributes to at least half of the losses of Banglalink. He said, “when you see five out of six operators losing money, it cannot be a management problem, nor a strategic problem”. He said, “We all belong to different groups and came from different backgrounds with varying management styles.” Therefore, there is something wrong in the existing environment of the telecom industry in Bangladesh. “He cited a World Bank study, which suggests that Bangladesh has the lowest call rate, which is mainly due to competition and price wars among the six operators. Pointing to the issue of too many operators, he said Saudi Arabia had two operators and introduced a third six months ago. “Why do they have only three operators, despite having purchasing power and a healthy GDP?” The same issue was raised by Ananya Raihan, Executive Director, D. Net. He said that the telecom market is experiencing saturation as the country has too many operators in comparison to the number of potential subscribers, while there is an opportunity to increase the number of subscribers, not all of them can be brought under connectivity. The operators should try and focus more on presenting value added services. He said a differential pricing policy is required to appeal to potential subscribers in rural areas.

Cultural Activist Aly Zaker mentioned the importance of mobilephone as he said that If it were not for cellular phone connectivity, there would have been no way to reach out to the remote villages, not even in the case of medical emergencies. He added e-medical services offered by operators have benefited rural Bangladesh. M Rafiqul Islam, Joint Secretary, Ministry of Posts and Telecommunications does not believe that the mobile phone operators would record profits once the SIM tax is withdrawn. There are other factors that make an organization viable and profitable, such as VoIP crackdown and price wars. Those factors must be addressed simultaneously. He said, “What the government can do is facilitate infrastructure and the private sector. The mobile operators will use that infrastructure. Accordingly, teledensity and other activities will increase in the country”. Mr. Islam also indicated that the per minute call charge was Tk 6-7 in 1997, which came down to around Tk 0.75 at present. The teledensity was 0.4 percent at that time, which now increased to 34 percent. As per the ICT policy, teledensity will be increased to 70 percent by 2013.

Taslim Ahmed, Deputy General Manager, Corporate Affairs, Citycell talked about a critical issue. He said that the SIM tax, borne by the mobile operators but supposed to be paid by the customers, can be seen as a revenue earnings scheme for the government. “We subsidized the tax as we wanted to maintain growth. But we do not wish to subsidize any more, as we now target rural customers. If we pass on this tax to rural customers, a SIM card will cost Tk 800 to Tk 1000, which they will not be able to afford,” Ahmed said. He said a
large portion of the market would be deprived of the mobile technology. “And if this large segment, the largest share of the pie, will not have access to mobile phones or the latest communication technologies, how do you think the country is going to be digitalized?” The mobile phone is the best vehicle to reach out to people and connect them via voice and data because the telecom industry has the largest infrastructure and network coverage across the country. As such, he said. “It has the ability to convert a million probabilities into realities,” he concluded. On infrastructure sharing, Taslim Ahmed said many operators are sharing their infrastructure as per the Bangladesh Telecommunication Regulatory Commission (BTRC) guideline.

Muneer Farooqui, Chief Executive Officer, Warid Telecom International Ltd proposed that the government should impose a monthly surcharge on mobile phone use, instead of SIM tax or mobile handset duties. The government receives a one-time payment from the SIM tax, during activation of the SIM. But the government can receive revenue every month if it “puts surcharge on mobile phone use instead of SIM tax and duty on handset.” The surcharge could be fixed as a percentage, or Tk 1 or Tk 5 per month, per customer. There are 45 million customers and if each pays Tk 5, for example, one can simply do the math to get the result. It would take teledensity to the next level, he said. “We did not expect the duty on handsets. It came as a total shock for all of us.” The handset duty could be reconsidered to make them more affordable for the poor. “It's a total no-win situation for all,” he said. “If the government withdraws SIM tax, there will be win-win situation for all of us in the long run.”

The mobile phone has changed the lifestyle of urban people to the level unmatched by any other sector, said Ahmed Mushfeq Anam, Managing Director, X-Fer Ltd, and Representative, Nortel Networks Netas. But, he said, it will not be possible for rural people to afford connectivity if the proposed duty on handsets is implemented in the next budget, he said. “Now it's time to reach out to rural areas, to give them an opportunity to use the mobile technology,” he said. "The government should not impose the duty on mobile phone handsets," because “The revenue output of a rural person is around Tk 2,000 to Tk 3,000 a month.” He also suggested the mobile phone operators to share their resources or infrastructure to minimise costs. “Competition does not mean you should have separate resources and infrastructure in the same area. You can use the same resources on a sharing basis and help each other in reducing the cost,” he said.

BTRC is trying to provide policy support to the information and communication technology (ICT) sector. The mobile sector phone is not separate as it also provides different IT based services, said BTRC Director Rezaul Quader. BTRC also wants to reduce SIM tax, Quader said. "However, we should also consider that the government needs money." Raihan Shamsi, Chief Corporate Affairs Officer, Grameenphone blamed the SIM tax for the stagnant mobile market. He said after the operators decided to discontinue bearing the SIM tax, the market witnessed a 3.5 percent negative growth in September-October 2008. "Low income groups can afford the mobile phone services as tariff was reduced to Tk 0.75 at the end of 2008," he said. "Despite lower tariff, the tax burden on the industry has barred growth." He claimed that in terms of tax burden, Bangladesh is on top in South Asia, followed by Pakistan, Sri Lanka and India. According to him, the mobile industry may penetrate more than half of the population to 56.5 percent or 95 million by 2013, if the SIM tax is waived in the final budget. The government can earn an additional Tk 5,000 crore by 2013 if the tax is removed. (See Exhibit five for the State of Information Technology is Bangladesh).
4. CONCLUSIONS

Mobile telephone that were the luxury item of the early 1990s, now has transformed into a necessity within the span of just one decade. Today, cellular phones are an indispensable tool to reduce rural penalization. Organizational effectiveness is essential for empowering the poor and desegregating them into the distribution profile. The rural poor, who are mostly the small farmers or the landless peasants, need to be mobilized into collective initiations or in "loosely co-coordinated associations to upgrade their income and consumption levels" (Mashreque, 1995) Policies that ensure the access of these poor to the newly formed organizational links need to be initiated. Further, organizations must initiate to integrate rural economy and public administration policies in its scheme. Certainly Bangladesh have the potentiality to "dawn of an unimaginable era of communication" for the rural poor (Bayes, 2009). The six mobile operators, operating nation-wide, added merely about one million customers to their networks up until the second half of 2008. This is eighty-six percent less than as is period a year ago. In the last half of 2007, they added near about seven million customers. The country has the potentiality to acquire over fifty-five percent penetration rate in the next five years. A high rate of taxation on the telecom industry is stripping the development for sure. Therefore, the mobile industry expects that the subscriber base will reach close to one hundred million from existing 46 million within that period of time only if the SIM tax is waived.

5. QUESTIONS

1. What should be the Marketing Strategies for Grameenphone to avoid price-war in Rural Sector?

2. Who would the target customer for Grameenphone in the rural areas of Bangladesh? Justify your answer.

3. What are the top five factors that are hindering the penetration into the rural market by Grameenphone?

4. Why GoB Officials does not believe that the mobile phone operators would record profits once the SIM tax is withdrawn? If, they are right, than what would be the Strategies for Grameenphone?

5. Is handset Duty is hampering Grameenphone Marketing Policy? What they can offer to solve this problem?

6. Muneer Farooqui (Chief Executive Officer, Warid Telecom International Ltd) proposed that the government should impose a monthly surcharge on mobile phone use, instead of SIM tax. If this has done, what would be the pros and cons for Grameenphone?

References

Exhibit One: Mobile Phone Subscribers in Bangladesh

The total number of Mobile Phone Active Subscribers has reached **50.4 million** at the end of **September 2009**. The Mobile Phone subscribers are shown below:

<table>
<thead>
<tr>
<th>Operators</th>
<th>Active Subscribers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grameen Phone Ltd. (GP)</td>
<td>21.98</td>
</tr>
<tr>
<td>TMIB (Aktel)</td>
<td>10.56</td>
</tr>
<tr>
<td>Orascom Telecom Bangladesh Limited (Banglalink)</td>
<td>12.13</td>
</tr>
<tr>
<td>PBTL (Citycell)</td>
<td>1.97</td>
</tr>
<tr>
<td>Teletalk Bangladesh Ltd. (Teletalk)</td>
<td>1.07</td>
</tr>
<tr>
<td>Warid Telecom International L.L.C (Warid)</td>
<td>2.69</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>50.4</strong></td>
</tr>
</tbody>
</table>

Source: BTRC
*Subscribers in Millions
**The above subscribers' numbers are declared by the mobile operators
Exhibit Two: Remittances in Bangladesh

The bulk of the remittances are sent by Bangladeshi migrant workers rather than members of the Bangladeshi Diaspora. Currently, 64 percent of annual remittance inflows originate from Middle Eastern nations. Robust remittance inflows in recent years (annual average growth of 27 percent in FY06-FY08) have been instrumental in maintaining the current account surplus despite widening a trade deficit. This in turn has enabled Bangladesh to maintain a growing level of foreign exchange reserves. Based on a simple regression exercise we find that number of workers finding employment abroad every year, oil price, exchange rate and GDP growth are the key determinants of changes in the level of remittance inflow. The results show that: (1) Each additional migrant worker brings in $816 in remittances annually; (2) Every dollar increase in oil price increases annual remittance by nearly $15 million; (3) Depreciation of exchange rate by one taka increases annual remittance by $18 million and; (4) Remittances are higher during periods of low economic growth. An interesting implication is that the impact of oil price increase on Bangladesh’s balance of payment is unfavorable.

A dollar increase in oil price increases oil import payments by about $26 million whereas it increases remittances by $15 million. Thus the impact of a dollar increase in oil price on the balance of payments is a deficit of $11 million.


Exhibit Three: History of Mobile Telecommunication Sector in Bangladesh

At the time of appraisal in 2000, Bangladesh had one of the lowest teledensity rates in the world: 0.26 telephones per 100 inhabitants. The fixed line incumbent, the Bangladesh Telephone and Telegraph Board (BTTB) had only 350,000 lines in service for a population of 125 million. The waiting list for a fixed line totaled 200,000 subscribers with a waiting time of over 10 years. The challenge was to (i) increase access to telecommunications services and improve the quality of service being offered; (ii) increase connectivity to rural areas, which, in turn, would promote the economic development of rural Bangladesh. During the 1980s through the 1990s, widespread reforms took place in the telecommunications sector due to various sector-specific, economic and political reasons. Historically, the telecommunications industry has long been a highly regulated monopoly dominated by a state-owned telecom organization. The advent of mobile phone technology has given a unique opportunity for countries to have an alternative source for telecom service. The relatively lower start-up costs, easy accessibility, and suitability of any geographic location for a mobile network helped mobile telephony to become popular quickly.

Bangladesh is the pioneer among LDCs, opening its mobile phone sector for private and foreign investment in 1989. Pacific Telecom launched the country’s first mobile phone service. Subsequently, three more mobile phone licenses were issued, in 1996, 2004 and 2005. The opening up of the mobile phone sector by Bangladesh was done independently, not as part of an international agreement. Liberalisation of trade and investment independently, without any binding from any international agreements, is known as Unilateral Liberalisation.
The liberalisation of the mobile phone sector of Bangladesh has, thus, been a unilateral one. No LDC has liberalised the sector before making formal commitment in the WTO. An examination of telecom literature reveals that the inefficiency, poor service quality, monopoly tariff rate, and inability of the BTTB to meet huge pent-up demand created ample market opportunities for mobile phone. WTO trade policy review (2006) reveals that the call completion rate of the BTTB was below 50%. The waiting time to get a connection was more than 4 years. This abysmal picture of the telecom sector made the policy makers feel the need for alternative source of telecom service for the consumers. The poor performance and inability of the BTTB also made potential users (especially business users) put pressure on the government to open the sector for private sector participation.

Other factors that helped in opening up the sector include the advent of mobile phone technology, and recognition by policy makers of the importance of private sector involvement in promoting infrastructure development, and attracting FDI, in the country.

As telecom services are used as a key intermediate input into production in all sectors, improvement of the sector and the resultant cost reduction upgrades overall productivity and encourages FDI. The urge for attracting FDI in the telecom sector, as well as other sectors, has been a key determinant in liberalisation of the sector.

The unique features of the mobile phone, such as 24-hour availability, instant messaging, Internet access, photography, etc., have been compelling factors that created the demand from all sections of people. Mobile networks fit the needs of some geographical areas where installation of fixed line networks proves difficult. All these benefits associated with mobile phone service paved the way for the liberalisation of this sector.

Source: The Daily Star Article entitled “Liberalisation of the mobile phone sector in Bangladesh” by Mohammad Abu Yusuf and Quamrul Alam Published in on 2007-11-15.

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Exhibit Four: The Contribution of GrameenPhone

1. The Village Phone Program, operated by GrameenPhone, currently provides mobile phone services to approximately 50 million people in villages across the country. It leverages micro-loans from the GrameenBank, providing women with credit to buy cell phones from GrameenPhone. The women then provide mobile pay phone service in their shops, the local market, and elsewhere, charging a markup agreed on with GrameenPhone. Extended cell-phone coverage in poorer areas has had a tremendous social and economic impact on the operators -- mostly rural, poor women for whom income-generating opportunities are rare. GrameenPhone has also established 500 Community Information Centers (CIC) where citizens in rural areas have access to the internet and information services. GrameenPhone currently has 6,000 sites in all 64 Districts, covering approximately 95 percent of the total population and 80 percent of the country. (Coverage= access to the network signal.)

2. Prices have fallen considerably. A prepaid minute of call from a mobile phone cost 5 Taka in 2004 (Exchange rate: US$1 = approx 70 Taka). The rates for the same call have fallen to Taka 1.50 per minute today, due to increased competition and improved interconnection arrangements between operators. With the entry of a fifth operator into the market on May 10, 2007 prices are expected to fall further and more innovative service offerings will be available to customers.

3. The TeleCommons Development Group (“TDG”) of Canada found that the consumer surplus from a single phone call to Dhaka, which replaces a physical trip to the city, ranges from 2.64 percent to 9.8 percent of the mean monthly household income. The cost of a trip to the capital ranges from 2 to 8 times the cost of a single phone call.

4. A 2006 Ovum study found that almost a quarter of a million Bangladeshis depend on the mobile industry, directly and indirectly, and that mobile services contribute US$650 million to the economy every year.

Source: Word Bank report titled, “Mobile Phone Creates Opportunities for Villagers in Bangladesh, Published in May 2007
Exhibit Five: Information Technology in Bangladesh

<table>
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<tr>
<th></th>
<th>2000</th>
<th>2005</th>
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<tr>
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<tr>
<td>International voice traffic</td>
<td>2</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>(minutes per person)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mobile cellular subscriptions</td>
<td>0</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>(per 100 people)</td>
<td></td>
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</tr>
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<td>Internet users (per 100 people)</td>
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<tr>
<td>Personal computers (per 100</td>
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<tr>
<td>people)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Households with television (%)</td>
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<td>..</td>
<td>..</td>
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<tr>
<td>Fixed broadband subscribers</td>
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<td>0</td>
<td>..</td>
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<tr>
<td>(per 100 people)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>International Internet bandwidth</td>
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<td>0</td>
<td>2</td>
</tr>
<tr>
<td>(bits per person)</td>
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<td>Telecommunications revenue (%)</td>
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<td>(GDP)</td>
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<td>Mobile and fixed-line telephone</td>
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<td>subscribers per employee</td>
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<td>Telecommunications investment</td>
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<td>(% of revenue)</td>
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<td>(per 1 million people)</td>
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Source: Worldbank

Exhibit Six: Telecommunication Industry in Bangladesh

During 1993-1996, mobile phone customers could not reap the benefits of competition as the market was monopolised by a single company, Pacific Bangladesh Telecom Ltd. Naturally, mobile phone charges were high in this period. However, with the commissioning of mobile phone service by Grameen Phone Limited and Aktel in 1997, the situation started to improve in terms of price reduction and quality. The period 1997-2004 was characterized by Grameen Phone's dominance. Grameen Phone Limited quickly grabbed the majority market share because of its widespread social network (Grameen Phone is a sister organisation of Grameen Bank), and by dint of its high quality network and innovative marketing skills. During 1997-2004, the outcome of competition was suboptimal due to the dominance of one company, but the arrival of Banglalink in the mobile phone market brought immense price competition. The intensity of competition came as a blessing for the customers. Call charges, which were once very high, went down significantly. The call charges now range between Tk.0.25-2.00/minute, which were in the range of Tk.5.8 before Banglalink's arrival in 2005, and Tk.16/minute in 2001.

Moreover, operators now provide a variety of services and promotional packages such as FNF scheme, off-peak rate, free talk time for new connection, loyalty discount on airtime, free sim replacement, club magnate service, "Zem Fun," "pulse billing," etc.

Liberalisation of the sector greatly enhanced tele-density of the country. In March, the total tele-density (fixed + mobile phone) stood at 16%, which was only 0.30 in 1998 and 0.85 in 2005. The present tele-density is still very low compared with global average tele-density of 50 %.

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Availability of the mobile phone has also forced the public sector fixed-telephony provider, BTTB, to adjust its pricing policy. Due to competitive pressures from mobile phones, BTTB recently lowered charges on its different services. The NWD charge has been halved to Tk 1.5 a minute (considering the entire Bangladesh as one zone). Besides, it has also reduced monthly line rent, reinstallation line charge, name and number charge. BTTB land phone users surrendered 40,000 lines in two years (The Daily Star, October 26; Dainik Nayadiganto, October 22). Indeed, the rise of mobile phone is eating away at BTTB's core business of fixed-line voice telephony.

Mobile phones created entrepreneurship among the people. Grameen Phone's VPP brought revolutionary changes in the lives of rural people. Village women now earn their livelihood through commodification of a mobile phone. It has also mitigated the social costs by helping wage earners and others who work away from their relatives to be in touch with their beloved and relatives. A recent study reveals that the sector has created 240,000 jobs.

The mobile phone sector also earns significant amount of Value Added Tax (VAT) for the government, generating Tk.1189.85 crore in FY 2006-07. On balance, the liberalisation of the mobile phone sector has contributed significantly to the socio-economic development of the country. Providing necessary interconnection facilities for mobile phone operators and addressing other problems of the sector are, therefore, of utmost importance.

Source: The Daily Star Article entitled “Liberalisation of the mobile phone sector in Bangladesh” by Mohammad Abu Yusuf and Quamrul Alam Published in on 2007-11-15.