



慶應義塾大学ビジネス・スクール

GrameenPhone Ltd.

“Bangladesh will be a good target for investment in the future. . . . With loans available for people to buy cell phones, entire villages are being brought into the Information Age. I want people throughout the world to know this story.”

*Bill Clinton (former president of the United States, in Dhaka, Bangladesh, 2000)*¹

I arrived at the international airport in Dhaka, the capital of Bangladesh, after 14 hours of flight from Tokyo. I went out of the airport building at one o'clock in the morning. But the air was still stifling hot and steamy. My glasses immediately clouded over dimming my vision, and made myself unable to walk. Although I had already read about Bangladesh's subtropical climate in the guidebook, it really did hit me as soon as I arrived. Through the taxi window on the way to my hotel, I was able to get a glimpse of Dhaka. There were advertising billboards everywhere. I noticed that some of them were for the famous GrameenPhone Ltd., which successfully achieved the diffusion of cell phones in this country.

There are approximately 4 billion people in the world living on an annual income of less than \$1,500.² These are the people who exist at the base of the economic pyramid (so-called BOP). Most of them are concentrated in Asia and Africa. Bangladesh, of which almost 100% of the population belong to BOP³, is one of the poorest countries in the world, with a per capita gross domestic product of \$554. Around 140 million people live in an area about 40% the size of Japan, and about 48% of the working population is engaged in agriculture.⁴

In recent years, the diffusion of cell phones in BOP countries has been spectacular, and Bangladesh is no exception. The cell phone diffusion rate has increased rapidly from just 0.2% in 2000 to 6.4% in 2005 and then 27.7% in 2008 (Appendix 1). GrameenPhone Ltd.,⁵ which is the largest

Masahiro Okada (Associate Professor), Graduate School of Business Administration, Keio University) prepared this case as the basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation.

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¹ Nicholas P. Sullivan (2007) *You Can Hear Me Now* (San Francisco: John Wiley & Sons), p. vii.

² C. K. Prahalad and Stuart L. Hart, “The Fortune at the Bottom of the Pyramid,” *strategy + business*, Issue 26, First Quarter 2002.

³ World Resource Institute (2007) *Next 4 Billion: Market Size and Business Strategy at the Base of the Pyramid*: p.111.

⁴ Retrieved on March 1, 2010, from the website of the Japanese Ministry of Foreign Affairs,

<http://www.mofa.go.jp/mofaj/area/bangladesh/data.html>.

⁵ Retrieved on October 15, 2009, from the website of the Bangladesh Telecommunication Regulatory Commission (BTRC),

telecommunications company in Bangladesh, has a 47% share of the nation's cell phone market. (See Appendix 2 for GrameenPhone's financial data.)

Entrepreneur Iqbal Quadir

It is impossible to talk about the founding of GrameenPhone without mentioning the entrepreneur Iqbal Quadir. Quadir is a Bangladesh-born American. He left Bangladesh in 1976 in his teens to study in the United States. Quadir studied engineering as an undergraduate, decision science at graduate school level, and then began to work at the World Bank. The reason was that he had been imbued with a spirit of idealism by his father and had a strong desire to be useful to people. Quadir realized that the strength of a large development organization was necessary to help Bangladesh⁶, which had only recently achieved independence in 1971, recover from chaos. At the World Bank Quadir was assigned to a group that managed the investment funds of commercial banks, and as a result he came into contact with the business methods of Wall Street. From this new perspective, he came to realize that business is an effective method of problem solving. After that, in 1985 he obtained an MBA at the Wharton School of the University of Pennsylvania, and in 1993 he went to work in New York as a venture capitalist.

One day, Quadir's computer network broke down in his office, and the inconvenience that he felt made him remember Bangladesh in the past. At the time when Quadir was living in his grandfather's house in the countryside of Bangladesh, he walked for 10 kilometers in order to get some medicine for his younger brother. But when he finally reached the drugstore, he found that the pharmacist was not there, having left the village in order to procure some supplies. "What a waste! . . . 'I realized that connectivity is productivity, whether it's in a modern office or an undeveloped village,' says Quadir."⁷

In Bangladesh, fixed-line telephone services were available only in the capital city Dhaka and the second-largest city Chittagong, and there were just two phones per 1,000 people.⁸ In addition, each household had to wait for a long time to have telephone lines installed at their home. Nevertheless, people really wanted phones, and as of 1993, there were more than one million applicants waiting for their turn to come. If you knew the right people, you might get a line in five years; otherwise, people commonly had to wait for 10 years. Furthermore, the quality was very poor, so even if you had a phone, the chance of it actually working was only about 20%.⁹

In 1994, at the age of 36, Quadir quit his job in New York and returned to Bangladesh with the aim of diffusing cell phones in his home country. He had a precedent model in his mind. The project was called the Village Phone in India¹⁰

⁴⁰ <http://www.btrc.gov.bd/>.

⁶ Bangladesh gained independence from Pakistan on December 16, 1971.

⁷ Sullivan, op. cit., pp. 9–10.

⁸ At that time only fixed-line phone services were provided by the state-run Bangladesh Telephone and Telegraph Bureau.

⁹ Sullivan, op. cit., p. 4.

¹⁰ Sullivan, op. cit., p. 26.

India's Village Phone

Village Phone in India was realized by Sam Pitroda. Pitroda was born in the poorest region of the country, in a small village where there was neither electricity nor tap water. After obtaining his Ph.D. in physics, Pitroda migrated to the United States, where he worked as an engineer designing telephone switchboards. After that, he launched his own company. He became a US citizen in 1980 and lived an affluent life, but then he returned to India and set about spreading the Village Phone.¹¹

India has a population of around 850 million people,¹² but telephones were not very common at all. As of 1993, there were just five million telephone lines in the country.¹³ Pitroda realized that although it was difficult for people to possess their own phones, it should be possible to enable them to use phones by spreading public telephones. Since the manufacturing cost for coin phones was too expensive, a meter was attached to ordinary phones and then those phones were entrusted to village entrepreneurs. They placed phones with the meters on tables in outdoor bazaars, on street corners, in shops, and so on and collected money on a minute by minute basis. About 20%–25% of this money went to the entrepreneurs as commission. Since the phones were constantly in use, they were able to earn enough money to take care of their families. Using this method, Pitroda successfully spread the Village Phone into villages, and he planned to install this kind of phones in 100,000 villages out of 600,000 in India by 1995.¹⁴

Foundation of GrameenPhone and Acquisition of a Business License

Quadir, who came to know about the existence of the Village Phone in India, had the idea of establishing a profitable business supplying telecom services in Bangladesh. The key player to the realization of his dream, he thought, was Grameen Bank. Grameen Bank was founded in 1983 by Dr. Muhammad Yunus¹⁵ as a private bank engaged in microfinance helping people in poor villages improve their economic situation by financing small scale businesses. Yunus and Grameen Bank were highly respected in Bangladesh, and Quadir realized that this reputation would be an important asset in obtaining a license from the government. He also realized the Grameen's already existing network of branches in villages. As of 1995, Grameen Bank covered about 36,000 villages with 1,055 branches and managed microfinance services to around two million people.¹⁶

In December 1993, Quadir met Yunus and asked him whether he was interested in connecting Grameen Bank's branches by telephone network. At that time, Yunus was doubtful about the necessity of phones. Furthermore, he asked Quadir whether it was possible to supply phone services in villages and whether he could provide phones cheaply enough for poor people to use them. Yunus said that he

¹¹ Sullivan, op. cit., pp. 26–31.

¹² Retrieved from Wikipedia, <http://ja.wikipedia.org/wiki/%E3%82%A4%E3%83%B3%E3%83%89>, March 1, 2010.

¹³ Sam Pitroda, "Development, Democracy and the Village Telephone," *Harvard Business Review*, November–December 1993.

¹⁴ Ibid.

¹⁵ Muhammad Yunus received the Nobel Peace Prize in October 2006.

¹⁶ According to the Grameen Bank website (<http://www.grameen.com/>), in 2007 it covered about 80,000 villages and had 2,481 branches and eight million members.

had no interest in obtaining a license unless these two conditions were met. However, the two men agreed to study the issue further.¹⁷

Quadir met Yunus again in 1994 and explained his “telephone lady” concept. The concept was as follows: Women in rural villages would purchase cell phones with money borrowed from microfinance, subscribe to a cell phone service, and then earn income by lending the phone to village people. Hearing that it would be possible to bring cell phones to villages through this concept, Yunus became interested. However, funds and know-how to actually operate a cell phone business were still lacking.

Next, Quadir set up a company called Gonofone Development together with Joshua Mailman, one of the founders of the Social Venture Network,¹⁸ and began activities toward the realization of the cell phone business. After that, Gonofone, which means “phones for the masses” in Bengali,¹⁹ formed a consortium with Grameen Bank and Telenor ASA, a Norwegian cell phone operator, and went ahead with preparations to take part in an expected government tender for a cell phone business license. Grameen Bank had a wealth of knowledge about rural villages in Bangladesh but knew next to nothing about telecommunications. Telenor, meanwhile, possessed technology and know-how relating to cell phones but did not know anything about the situation in rural villages in Bangladesh. In addition, while Grameen Bank was a nonprofit enterprise aiming for the eradication of poverty, Telenor participated in the consortium with the objective of not only development but also generating profits.

In the process of making preparations for the tender, following a proposal by Yunus, it was decided to create two registered organizations in Bangladesh. One was Grameen Telecom, a nonprofit corporation, and the other was GrameenPhone, a for-profit telecom operator. Grameen Telecom would make bulk purchases of call time from GrameenPhone at 50% discount and sell it to village women, who would then sell it to end users. GrameenPhone was to possess the license, build the network, and sell the service (Appendix 3). In other words, Grameen Telecom takes charge of marketing, sales, and fee collection in villages using Grameen Bank’s microfinance network, and GrameenPhone directly opens up the urban market using Western methods.²⁰ It was also agreed that Telenor, Grameen Telecom, and Gonofone invest in GrameenPhone.

GrameenPhone’s application for a government license, submitted in November 1995, gave the following explanation:

“GrameenPhone proposes to provide customer-friendly, low-price and high-quality GSM [Global System for Mobile Communications] cellular telephone services for the whole Bangladesh. It is proposing to start offering services within four months after license award . . . [covering] nearly

¹⁷ Sullivan, op. cit., p. 38.

¹⁸ The Social Venture Network is a worldwide network of entrepreneurs engaged in social projects. The SVN’s website is <http://www.svn.org/index/cfm>.

¹⁹ Sullivan, op. cit., p. 43.

²⁰ Sullivan, op. cit., p. 72.

half the population of Bangladesh in the first 18 months after license award, and 98 percent of the geographical area of the country in six years.

“GrameenPhone plans to offer services to the people of all walks of life. For the urban areas, it proposes to offer very customer-friendly and cost-effective services. For the rural areas, on top of these qualities of service, GrameenPhone plans to introduce an innovative program which would provide self-employment opportunity for many while at the same time enabling a rapid rollout of coverage. Through this program, poor individuals will be able to borrow money from Grameen Bank to purchase handsets and enter into the business of providing telephone services for their respective villages.” “Grameen Bank considers it important to play a meaningful role in bringing communication services to the doorsteps of all Bangladeshis, including the villagers, be they poor or distant. . . . By making rural people accessible, GrameenPhone would not just be serving the rural people as a market for itself, but serving for the government and businesses as well, which would work more efficiently if they could access rural people who constitute 80 percent of the country’s population.”²¹

The tender results were announced in August 1996, and three companies (GrameenPhone, Aktel and Sheba Telecom) acquired licenses in November of that year. Incidentally, Japanese trading company Marubeni also invested in GrameenPhone. The capital shares were Telenor 51%, Grameen Telecom 35%, Marubeni 9.5%, and Gonofone 4.5%.

Telenor

Telenor ASA is a multinational telecommunications company with its headquarters in Norway. In the past it was a state-run enterprise wholly owned by the government, but it was partially privatized in December 2000. As of the end of 2009, the Norwegian government had a capital share of 53%. Telenor is one of the largest cell phone companies in the world. As of 2009, it had operations in 14 countries, 174 million subscribers, sales of 107 billion Norwegian krone,²² and 40,000 employees.²³ Its history of international operations began in 1995, when Telenor invested in the Russian telecom company Northwest GSM. After that, as well as supplying a satellite communications line in the Czech Republic and entering Bangladesh in 1996, Telenor expanded its international market by establishing joint ventures with local companies in Ireland, Austria, Russia, Hungary, Lithuania, and Montenegro. In the fourth quarter of 2009 its sales ratios were 40% from Scandinavia, 16% from Central and Eastern Europe, and 28% from Asia (Appendix 4). Telenor’s vision is as follows: “Our vision is simple: Telenor exists to help customers get the full benefit of communications services in their daily lives. We’re here to help.”

²¹ Sullivan, op. cit., pp. 74–75.

²² 1 NOK = US\$0.17 (March 31, 2010; Yahoo Finance)

²³ From the Telenor website, <http://www.telenor.com/>

The Role of the Information and Communications Industry in Society

The impact of the information and communication industry on society can be broadly divided into its economic impact and social impact. As for the economic impact, there is first of all the direct impact from the industry's creation of income and jobs. This economic impact is getting larger year by year, and the share of the industry in gross domestic product is increasing, especially in the countries of Africa, Oceania, and Asia (Appendix 5). In addition, as with electric power, the information and communications industry contributes indirectly to economic development as social infrastructure. In 110 countries around the world, it is estimated that about 10% of GDP from 1989 to 1995 and about 15% from 1995 to 2003 was realized through ICT investment. This ratio differs by region, probably because ICT effects are influenced by various conditions for the utilization of ICT, namely, ICT skills, business models for the utilization of ICT, and the establishment of legislation (Appendix 6). In BOP countries especially, the impact of the diffusion of cell phones is extremely large compared with major developed countries. The reason is that in BOP countries, unlike major developed countries, means of telecommunication did not exist before, so cell phones spread as the first means of telecommunication. Specifically, the diffusion of cell phones has such effects as vitalizing economic activity, building more efficient information flows, reducing business costs, and making physical movement unnecessary.²⁴ It has also been confirmed that especially in regions without postal services, means of transportation, fixed-line phone services, and so on, there is a tendency for relatively more money to be spent on phones, because the use of phones reduces expenses that were necessary until then.

Regarding the social impact, ICT contributes to the achievement of Millennium Development Goals (Appendix 7). Stipulated by the United Nations and reaffirmed at major international meetings, summits, and so on, these MDGs are eight targets that the international community is committed to attain by 2015. The eight goals include: eradicate extreme poverty and hunger; achieve universal primary education; promote gender equality and empower women; reduce child mortality; improve maternal health; combat HIV/AIDS, malaria, and other diseases; ensure environmental sustainability; and develop a global partnership for development.

Grameen Telecom and Telephone Ladies

Founded in 1995, Grameen Telecom is a nonprofit organization that aims to improve living standards in rural villages in Bangladesh and eradicate poverty. It began the Village Phone Program, which was developed jointly with Grameen Bank, in March 1997. In the Village Phone Program, Grameen Telecom provided necessary training to village women ("telephone ladies") who had borrowed microfinance from Grameen Bank, and then sold cell phones and services to these women then lent the cell phones to other villagers and received fees. The telephone ladies are entrepreneurs, and the fees collected from villagers become their income. Since the initiation of the program, the number of Village Phones increased, and rural villagers became able to use telecommunication services (Appendix 8). As of May 2009, 72,000 of Bangladesh's 86,000 villages had Village Phones.²⁵

²⁴ International Telecommunication Union, World Telecommunication/ICT Development Report 2006.

²⁵ From Grameen Telecom materials.

In the case of a telephone lady attending a microfinance meeting held in a village outside Dhaka, monthly sales when the service began in 2004 were about 8,000 taka,²⁶ of which she paid 5,000 taka to Grameen Telecom as fees. The remaining 3,000 taka was her profit. Thanks partly to her income as a telephone lady, she said, the economic situation of her household had improved, and her family was able to live in peace.²⁷

Immediately after the program began, the Village Phones contributed to the diffusion of phones in villages and improvement of the economic condition of telephone ladies. In recent years, however, the situation has changed. As a result of competition among telecom operators, the cost of cell phones and rates have fallen dramatically, and villagers have become able to have their own cell phones. Indeed, of around 40 women who attended a microfinance meeting in a village outside Dhaka, the author observed, about 90% replied that they had their own cell phones at least one per household.²⁸

Trends in Cell Phone Call Rates

	Village Phone	Individual phone
Around 2004	10 taka/min.	7 taka/min.
2009	2 taka/min.	1 taka/min.

As rates dropped and people began to possess their own cell phones, the demand for Village Phones declined and the income of telephone ladies fell as well. The monthly sales made by the above-mentioned telephone lady declined from about 8,000 taka in 2004 to around 6,000 taka in 2009.²⁹ The call fees that Grameen Telecom receives per Village Phone have fallen too (Appendix 9). According to Grameen Telecom’s Mr. Md. Zohorul Haque, who is in charge of Village Phones and the Community Information Center project, at present Grameen Telecom has four sources of income. In addition to call rates from telephone ladies participating in the Village Phone program, it receives income from Nokia Distribution (sales of Nokia cell phones), Nokia Care Center (repair and other after-sale services for users of Nokia cell phones), and dividends from GrameenPhone. Furthermore, as well as the Village Phones, in recent years Grameen Telecom has begun offering business support for village entrepreneurs who want to set up Internet cafés, called Community Information Centers (Appendix 10). As with the Village Phone, Grameen Telecom purchases lines for Internet access from the GrameenPhone network and sells them to entrepreneurs, who then provide Internet access services to villagers and receive fees from users. As of the beginning of July 2009, only 140 of Bangladesh’s 86,000 villages had CICs, but Grameen Telecom’s target is to cover all villages in two years’ time and enable everyone to access the Internet.³⁰

²⁶ Bangladesh’s currency is the taka. Roughly, 1 taka = ¥1.5.
²⁷ Interviewed by the author on June 30, 2009.
²⁸ Same as note 27.
²⁹ Same as note 27.
³⁰ Same as note 27.

GrameenPhone

GrameenPhone acquired a business license in November 1996 and launched its cell phone service on March 26 of the following year, Bangladesh's Independence Day. This was more than six months earlier than the other two companies that had acquired licenses at the same time. (Aktel, which changed its name to Axiata Bangladesh in 2009 and is 70% owned by the Malaysian multinational telecom company Axiata, began its service in October 1997, and Sheba Telecom, which was wholly purchased by the Egyptian multinational telecom company Orascom and changed its name to Orascom Telecom Bangladesh, started its service in September 1998.)³¹ At first GrameenPhone had four investors, but in 2004 this became two companies: Telenor (62%) and Grameen Telecom (38%).

Mr. Sayed Talat Kamal, GrameenPhone's deputy manager of public relations, spoke as follows about the company's business development³²:

"Before GrameenPhone entered the market, the cell phone business" was monopolized by PBTL,³³ and cell phones were extremely expensive. The price of a cell phone terminal was between 75,000 and 100,000 taka (approximately \$1,100-1,400), and call rates were about 10 taka (15 cents) per minute. The service was provided mainly to government officials and only in Dhaka and Chittagong, Bangladesh's second-largest city. It was in those circumstances that GrameenPhone entered the cell phone business.

"At first we were unable to secure enough lines with BTTB,³⁴ which provided fixed-line phone services, so it was rather difficult connecting cell phones and fixed-lined phones. In addition, when calling from a BTTB fixed-line phone, BTTB users paid a charge per call regardless of the length of the call, which meant that callers tended to talk for a long time. This made it even more difficult for phones to be connected. In 1998, therefore, we started a GP to GP service [GP is an abbreviation for GrameenPhone], a mobile-only service rather than cell phone to fixed-line phone calls. After entering the business, it had taken us six years to get one million subscribers. But thanks to the introduction of this service, we managed to get the next million subscribers in just one year."

The number of GrameenPhone's subscribers has been rising sharply since 2004 (Appendix 11). Mr. Kamal went on:

"Company management follows the Telenor style. Of the five board members, three are from Telenor and two are from Grameen Telecom. The CEO is from Telenor.

³¹ From GSM World, http://www.gsm.org/roaming/gsminfo/cou_bd.shtml, March 7, 2010.

³² Interviewed by the author on July 1, 2009.

³³ Pacific Bangladesh Telecom Ltd. entered the cell phone business in 1993 and monopolized the market at first.

³⁴ The Bangladesh Telephone and Telegraph Board was a state-run fixed-line phone company. It was privatized in July 2008, changing its name to Bangladesh Telecommunications Co., Ltd. (BTCL).

“Competition with other companies is intense. Urban areas are already saturated, and rural people are extremely sensitive to price. The price of a SIM card is 100 taka, or \$1.43, but when you buy a SIM card,³⁵ you also have to pay a tax of 900 taka (\$13). That is a hurdle for people who want a new subscription. We are asking the government to abolish this tax or make it cheaper so that cell phones become even more common. In addition, as the number of subscribers increases in Bangladesh, price competition among cell phone businesses is occurring. Other companies are competing by lowering prices as far as they can, but GrameenPhone is not engaging in haphazard price competition. The total number of BTSs³⁶ of other companies is between 6,000 and 7,000, but GrameenPhone already has 11,000 base stations and has completed an adequate network, so we have an advantage in terms of capital investment for connectivity.”

According to GrameenPhone’s website,³⁷ its capital investment in network building so far amounts to US\$1.6 billion, and its network, the largest in Bangladesh, already covers 98% of the population. Furthermore, it is possible to use not only GSM but also EDGE and GPRS, which are used for data communications. GrameenPhone also emphasizes after-sale services. It provides daily after-sale services through more than 600 service desks set up in almost all of the regions in the country and 72 GrameenPhone Centers in all of the main cities (Appendix 13).

Mr. Kamal continues:

“As well as the Village Phone Program, possible reasons for GrameenPhone’s success so far are the fact that the price of cell phones has come down and call rates have dropped too. Thanks to these trends, cell phones have spread and have contributed to the economic activities of our society. For example, previously farmers sold their products through brokers, but now they can directly obtain price information from markets and sell their products to places for the best price. In the case of mangoes, for example, until 2003 all transactions started in Dhaka, but nowadays growers look for the best price in cities throughout the country and sell them directly there.

“Today call rates have reached a level where they cannot be lowered anymore. Accordingly, in order to further spread cell phones in rural areas from now on, it will be necessary to lower the price of handsets and SIM cards. For example, it will be necessary to reduce the price of handsets from about \$30 now to around \$20. Regarding SIM cards, rather than levying a tax when people buy an SIM card, it would probably be more effective to distribute the tax on SIM cards to call rates.

“In addition, GrameenPhone is also engaged in social services. For example, the BillPay service enables users to pay gas bills and so on via GrameenPhone, and the Health Line service uses GrameenPhone’s network to provide long-distance telemedicine together with the TRCL.”³⁸

³⁵ SIM stands for Subscriber Identity Module. An SIM card is a portable memory chip that is used in cell phones using such standards as GSM and W-CDM and specifies the phone number. An SIM card and handset are necessary to talk on a cell phone.

³⁶ Base transceiver stations.

³⁷ Taken from <http://www.grameenphone.com/index.php?id=63> on March 6, 2010.

³⁸ Telemedicine Research Center Ltd., a company providing medical services in Dhaka.

Regarding its corporate social responsibility activities, as a partner in Bangladesh's development, GrameenPhone believes that the MDGs should be achieved and concentrates its efforts on four areas: poverty alleviation, healthcare, the empowerment of people in a weak position, and education.³⁹

GrameenPhone in the Future

There are six cell phone companies operating in Bangladesh, of which the top three companies have a combined market share of 90% (Appendix 14). After Orascom, a multinational telecom business with its headquarters in Egypt, purchased Sheba Telecom and entered the Bangladeshi market in 2004, cell phone rates dropped dramatically and price competition became intense. Orascom operates in 10 countries. In addition to Bangladesh and Egypt, these include Pakistan, North Korea, Tunisia, Algeria, the Central African Republic, and Burundi. It has 78 million subscribers in total.⁴⁰ One more leading telecom company is Axiata Bangladesh, in which Malaysia-based Axiata has a 70% stake and Japan's NTT DoCoMo has a 30% stake. Axiata operates in 10 countries in the Middle East and Southeast Asia. In addition to Bangladesh and Malaysia, these include Iran, Pakistan, India, Sri Lanka, Thailand, and Indonesia. It has 89 million subscribers. The cell phone industry is becoming increasingly international, and even telecom companies in Bangladesh, a BOP country, are getting caught by this whirlpool of globalization. In addition, preparations for licensing for the third-generation CDMA standard, which will follow the current GSM standard, have been progressing since 2009, and all of the telecom companies are getting ready to obtain a license for it. Furthermore, a service called WiMax, which has been developed mainly for data communications rather than cell phones, has started. In this way, competition in Bangladesh telecom market is expected to become increasingly intense from now on.

GrameenPhone was the biggest taxpayer in Bangladesh in the 2008–9 business year. Of the nation's total tax revenue of US\$2 billion, GrameenPhone contributed US\$80 million.⁴¹ Furthermore, on October 4, 2009, GrameenPhone made an initial public offering on the Dhaka Stock Exchange and procured US\$71 million. This was the largest IPO ever in Bangladesh. As GrameenPhone's scale is expanding, so is its social impact.

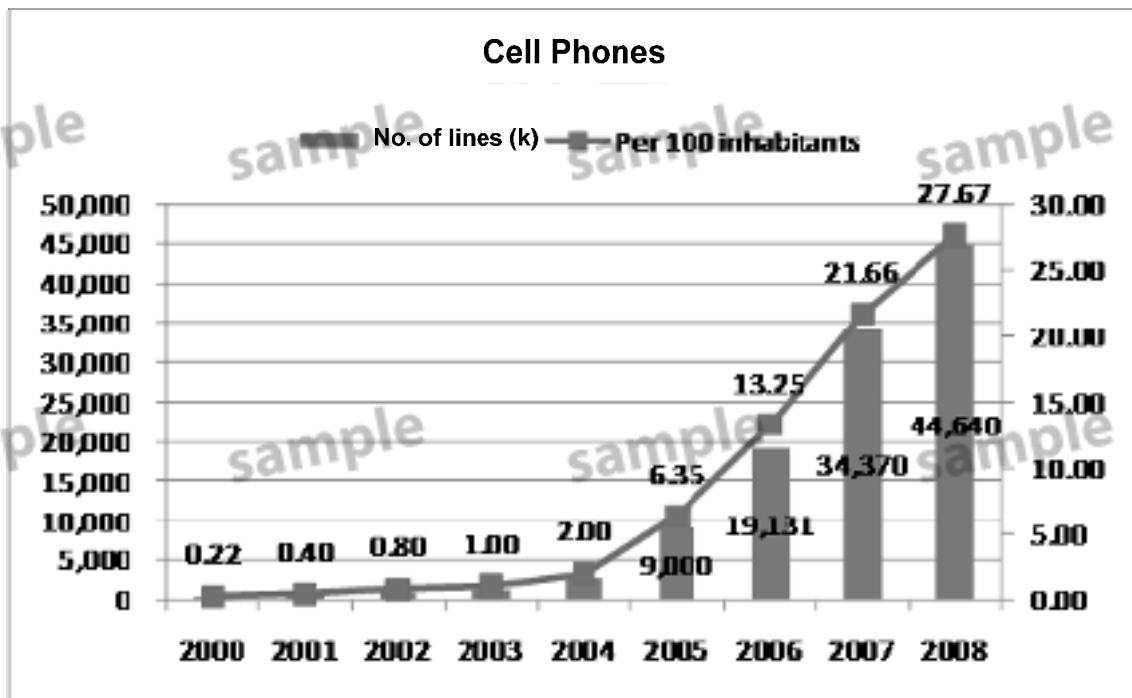
What kind of business development should GrameenPhone conduct in the future? Should its main business policy continue to be the diffusion of cell phones to village people, which is how it became famous worldwide in the first place? Or should it target mainly affluent people in urban areas? In addition, the companies in the Grameen Group are united in their policy of recycling profits back into the group and, for example, investing in new projects carried out by the group. However, Telenor, a for-profit company, also possesses some shares in GrameenPhone, so the majority of its profits goes to Telenor as dividends. The company has already gone public. How can the company maintain the consistency of its corporate direction to the policy of the Grameen Group?

³⁹ Taken from <http://www.grameenphone.com/index.php?id=78> on March 6, 2010.

⁴⁰ From Orascom's 2008 annual report.

⁴¹ Reuters, <http://in.reuters.com/article/domesticNews/idINDHA41699620090816>. Incidentally, the second-largest taxpayer was the Islami Bank Bangladesh Limited at 3.34 billion taka.

Appendix 1: Trends in the Cell Phone Diffusion Rate in Bangladesh



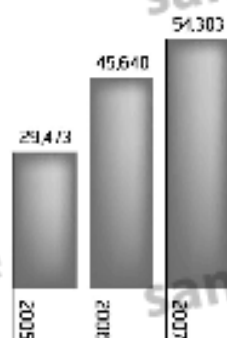
Source: Compiled by the author from the website of the International Telecommunication Union, Telecommunication Development Sector, <http://www.itu.int/ITU-D/ICTEYE/Indicators/Indicators.aspx>.

Appendix 2: Financial Data of GrameenPhone Ltd.

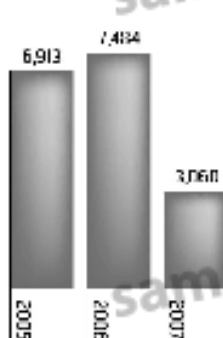
Profit & Loss Account

	2007	2006
in '000 BDT		
Revenue:		
Traffic revenue	46,684,747	39,085,284
Subscription revenue-postpaid	448,537	489,854
Connection revenue	304,660	407,211
Roaming revenue	386,933	351,395
Interconnection revenue - mobile operators	4,605,378	3,915,566
Other operating revenue	1,792,891	1,411,105
	<u>54,303,146</u>	<u>45,640,415</u>
Other income, net	38,156	102,285
	<u>54,341,302</u>	<u>45,742,700</u>
Operating expenses:		
Direct cost of network revenue	(12,792,566)	(10,072,244)
Network operation and maintenance expenses	(2,442,553)	(2,105,687)
General and administrative expenses	(5,627,680)	(3,915,212)
Selling and distribution expenses	(6,660,418)	(3,944,291)
Bad debt expense	(135,290)	(41,641)
Depreciation and amortization	(10,395,024)	(7,468,350)
	<u>(38,054,331)</u>	<u>(27,547,425)</u>
Operating profit	<u>16,286,971</u>	<u>18,195,275</u>
Finance costs, net	(968,503)	(918,824)
Loss on disposal of property, plant and equipment	(101,963)	(258,821)
Compensation to HIRC	(1,684,243)	-
Share of profit/(loss) of associate company	2,591	1,876
Profit before tax	<u>13,534,853</u>	<u>17,019,506</u>
Income tax expense	(10,475,013)	(9,535,549)
Profit for the year	<u>3,059,840</u>	<u>7,483,957</u>

Revenue (million BDT)



Net Profit (million BDT)



Notes:

- The financial statements have been prepared in accordance with Bangladesh Accounting Standards (BAS), Bangladesh Financial Reporting Standards (BFRS), International Accounting Standards (IAS), International Financial Reporting Standards (IFRS), Companies Act 1994 and other applicable laws in Bangladesh and audited by KPMG Rahman Rahman Haq.
- 1) Using conversion rates for 2007 and 2006 against USD are BDT 64.20 and BDT 64.65 respectively

Source: GrameenPhone Ltd., Annual Report 2007.

Appendix 2: Financial Data of GrameenPhone Ltd. (continued)

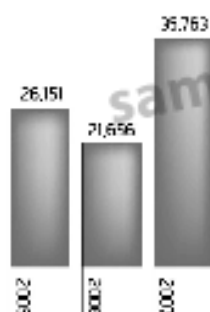
Balance Sheet

	2007	In '000 BDT 2006 (Restated)
Assets:		
Non current assets:		
Property, plant and equipment, net	80,318,190	55,413,498
Intangible assets	1,275,733	880,407
Other non current assets	16,064	12,560
	81,609,987	56,314,465
Current assets	6,851,054	10,442,193
Total assets	88,461,041	66,756,658
Equity and Liabilities:		
Shareholders' equity		
Share capital	2,430,350	2,430,350
Reserves	2,169,803	2,169,803
Retained earnings	21,510,954	19,909,324
	26,111,107	24,509,477
Non-current liabilities:		
Loans and borrowings, net of current portion	3,367,620	2,448,452
Finance lease obligations, net of current portion	5,315,559	4,229,277
Deferred tax liability	16,510,153	11,097,313
Other non-current liabilities	711,946	904,567
	25,905,278	18,679,609
Current liabilities	36,444,656	23,567,572
Total equity and liabilities	88,461,041	66,756,658

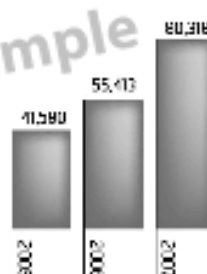
Key Financial Ratios:

Net profit to turnover	6%	16%
Return on total assets (ROTA)	18%	27%
Earning per share (EPS)	54.14	132.41
Dividend per share (DPS)	26.66	25.80
Dividend pay out ratio	49%	19%

Capital expenditure (million BDT)

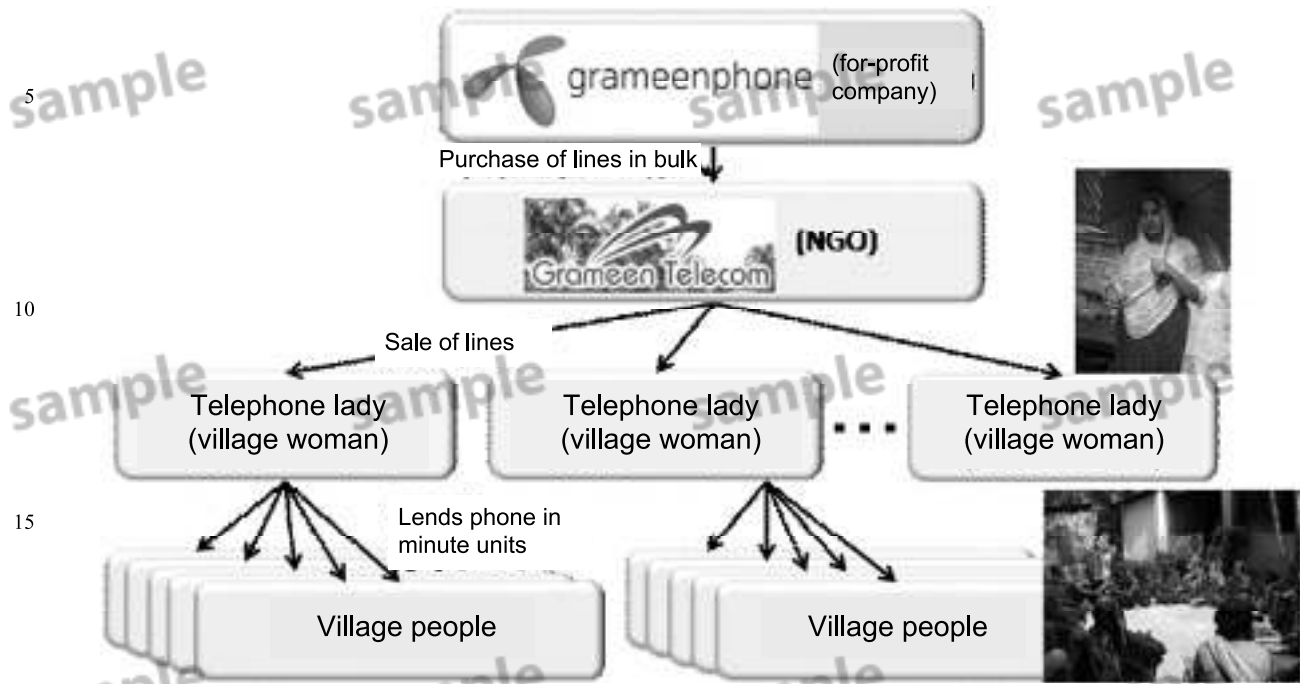


Operating assets & equipment (million BDT)



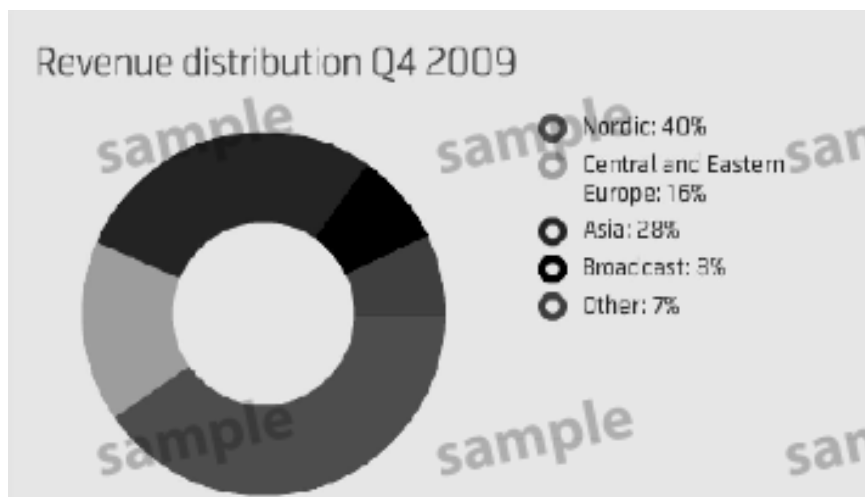
Source: GrameenPhone Ltd., Annual Report 2007.

Appendix 3: Relationship of GrameenPhone, Grameen Telecom, and Telephone Ladies



Source: Compiled by the author on the basis of materials and interviews.

Appendix 4: Sales Ratios of Telenor and Countries Where It Operates



<u>Country</u>	<u>Brand name</u>
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Nordic

Norway	Telenor
Denmark	Telenor
Sweden	Telenor
Finland	Canal Digital

Central and Eastern Europe

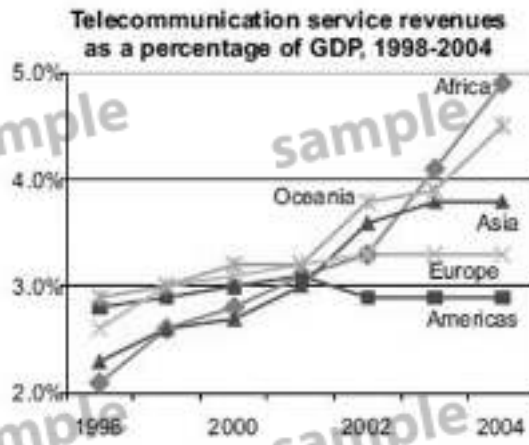
Hungary	Pannon
Montenegro	Promonte
Serbia	Telenor
Ukraine	Kyivstar
Russia	VimpelCom

Asia

Pakistan	Telenor
Bangladesh	Grameenphone
Thailand	dtac
Malaysia	DiGi
India	Uninor

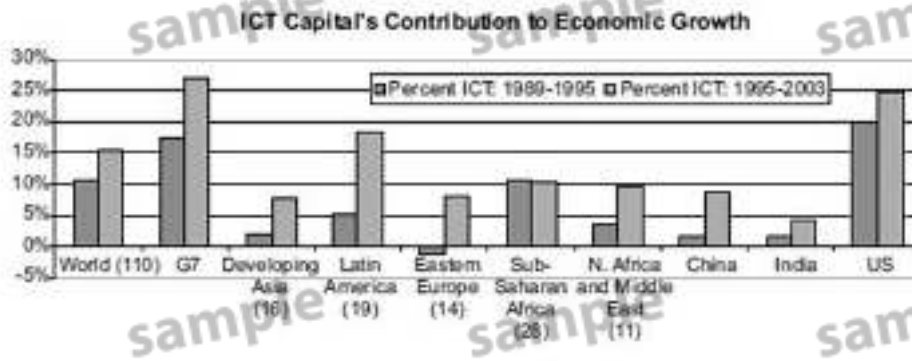
Source: Telenor website.

Appendix 5: Share of Telecommunication Service Industry in GDP



Source: ITU, World Telecommunication/ICT Development Report

Appendix 6: Percentage of GDP Boosted by ICT Investment



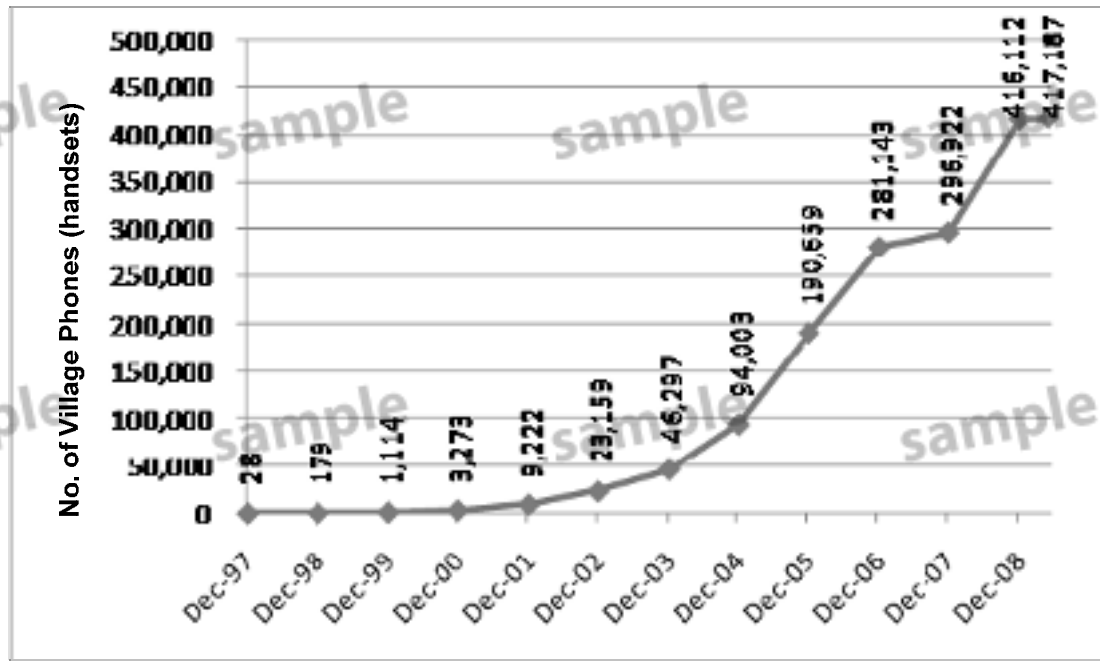
Source: ITU, World Telecommunication/ICT Development Report

Appendix 7: Contribution of ICT to MDGs

MDG	Outcome (impact)	
1. Poverty	Increased annual income	5
2. Universal primary education	More pupils taught where training is supported by ICT	
3. Gender equality	Positive changes in women's status and employment based on ICTs	10
4. Child mortality	Lower mortality rates in ICT-supported clinics	
5. Maternal health	Reduced maternal mortality rates where staff have received ICT-supported training	15
6. Combat HIV/AIDS	Fewer new cases of HIV/AIDS and improved treatment for those who sought advice by phone or online	
7. Ensure environmental sustainability	More effective actions taken to curb patterns of environmental abuses	20
8. Develop a global partnership	Faster improvements in achieving MDGs	

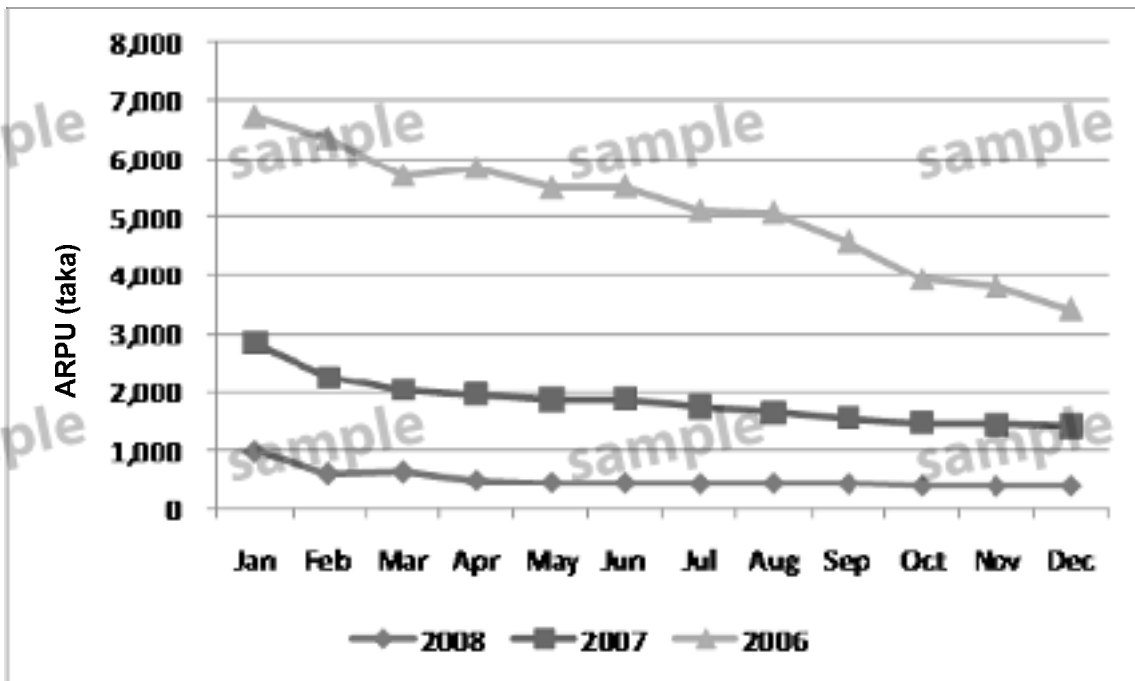
Source: Compiled by the author with reference to the International Telecommunication Union, *World Telecommunication/ICT Development Report*.

Appendix 8: Trends in Number of Village Phones



Source: Materials of Grameen Telecom.

Appendix 9: Grameen Telecom's Revenue per Village Phone

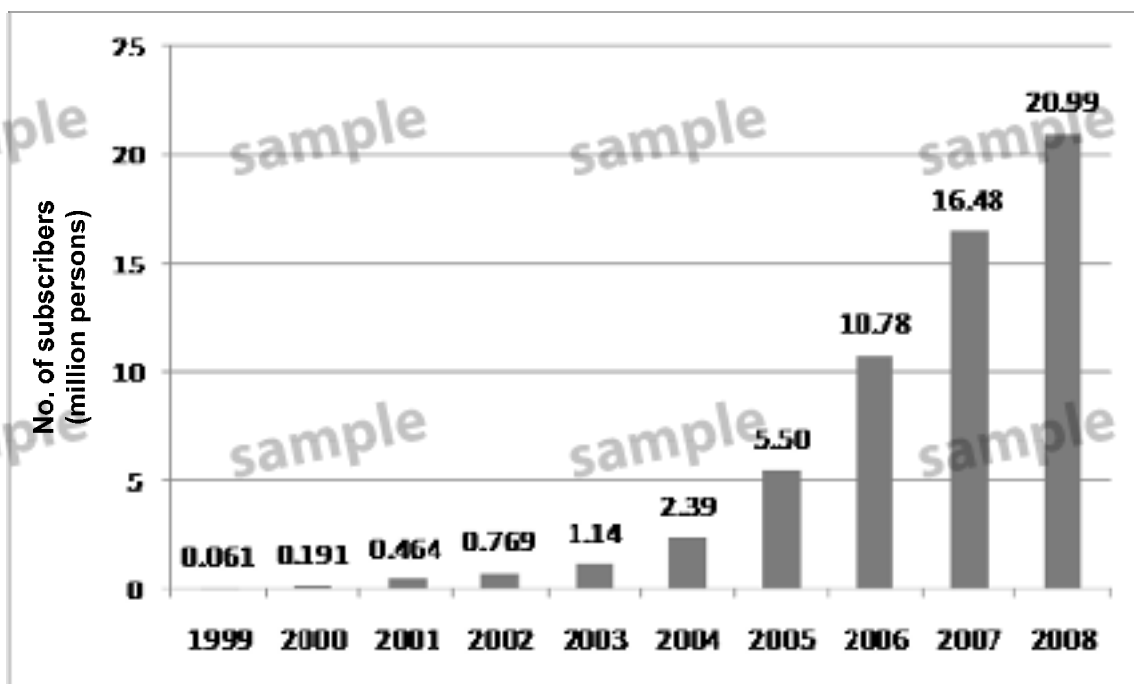


Source: Materials of Grameen Telecom.

Appendix 10: Exterior and Interior of a Community Information Center (CIC)

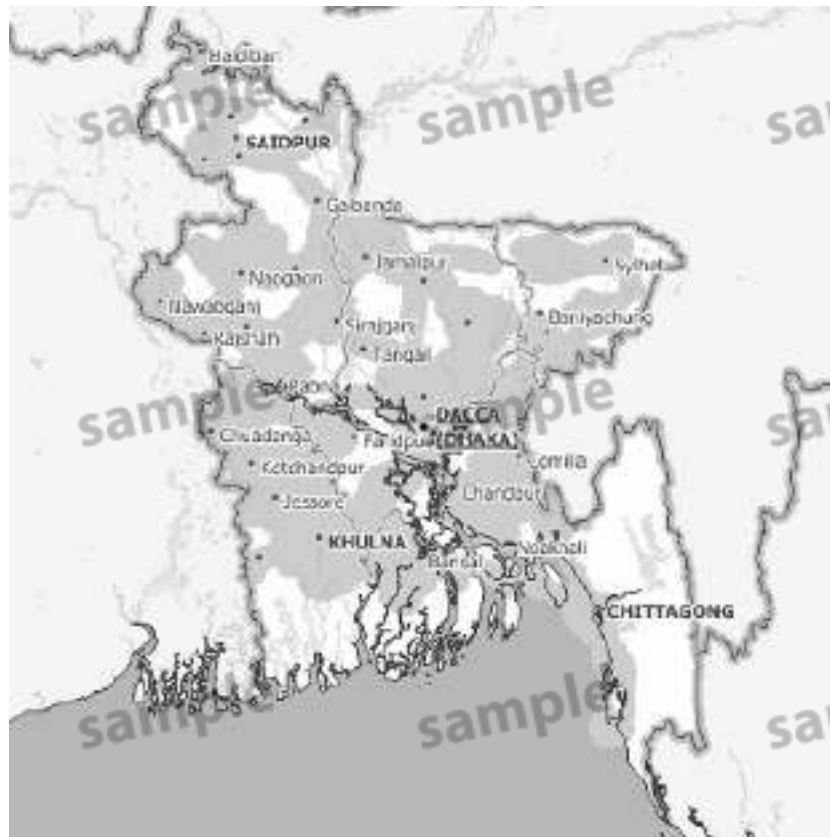


Appendix 11: Trends in Number of GrameenPhone Subscribers



Source: Compiled by the author from annual reports of GrameenPhone and materials of the Bangladesh Telecommunication Regulatory Commission (BTRC).

Appendix 12: Coverage Area of GrameenPhone



Coverage quality (high variable):
□ GSM 900/1800



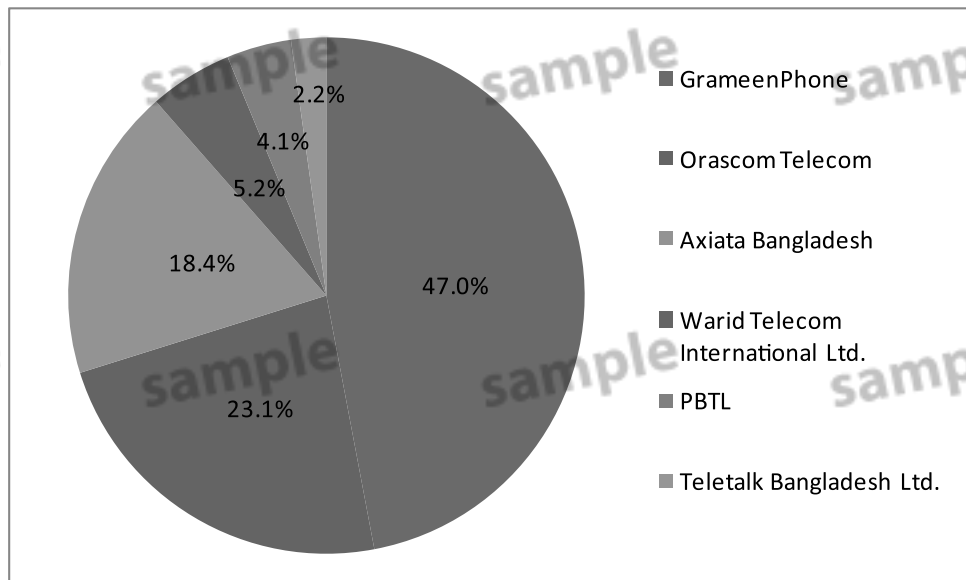
Source: GSM world, http://www.gsm.org/cgi-bin/ni_map.pl?x=0&y=0&z=0&cc=bd&net=gr

Appendix 13: Exterior of a GrameenPhone Center



Appendix 14: Shares of the Cell Phone Market in Bangladesh (2008; based on number of subscribers)

Total number of subscribers: 44.6 million users



Source: Compiled by the author from materials of the Bangladesh Telecommunication Regulatory Commission (BTRC).

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