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Women Empowerment through Mobile Phone: Case Study of Bangladesh Dr. Mizanur Rahman¹ ¹ Governance Policy Explore Center Received: 12 February 2021 Accepted: 4 March 2021 Published: 15 March 2021

7 Abstract

⁸ Telecommunication particularly Mobile technology is one of the most powerful tools

⁹ worldwide. Mobile phones play a foremost part in development programs around the world.

¹⁰ The diffusion of mobile phones performs a great role in development programs along with

¹¹ overall empowerment in developing countries. Telecommunication is most powerful to combat

¹² poverty and give the people a chance to change their fate, their economy, their society and to

¹³ empower themselves to change the world, especially for women. Large sections of women in

¹⁴ Bangladesh are living in rural areas. The majority of them are still tradition-bound and are in

¹⁵ a disadvantageous position. Because of inequality in women's access to and participation in all

¹⁶ communication systems and their lack of sufficient mobility to promote their contribution to

society, women are deprived in every aspect of life. Mobility is a very important factor for
women's empowerment. The Mobile phone revealed the opportunities and freedom for women

¹⁸ women's empowerment. The Mobile phone revealed the opportunities and freedom for women ¹⁹ to make their own choices, improve their social network, change their attitudes and change

20 their life.

21

Index terms— empowerment, women empowerment, telecommunication, mobile phone, sustainable development,

24 1 Introduction

obile phone is most powerful to combat poverty and give people a chance to change their fate, their economy, 25 their society and to empower themselves to change the world, especially for women. Mobility is a very important 26 factor for women's empowerment. The Mobile phone revealed the opportunities and freedom for women to make 27 their own choices, improve their social network, change their attitudes and change their life. The diffusion of 28 mobile phones performs a great role in development programs along with the social, economic, political, and 29 overall empowerment of women in developing countries. Women contribute a lot to improve the well-being 30 of families, communities, and society. Empowering women through mobile phones can accelerate social and 31 economic development individually, nationally, and globally. 32

The use of mobile phones by women has improved expressively in the past decade. In the early days of the introduction of the mobile phone, it was perceived as a symbol of luxury for urban users in wealthy countries. But now mobile phone becomes a part and parcel of every day's life that touches the lives of women from remote

³⁶ farming societies to swarming megacities.

37 **2** II.

What is Women Empowerment 'Empowerment' has been used to represent a wide range of concepts and to describe a proliferation of outcomes [1]. Women's empowerment is found to be a multidimensional process having a considerable impact on many aspects of life, including social standing, family relationships, and emotional and

⁴¹ physical health conditions along with financial stability [2]. The empowerment of women is an important and

42 most substantial approach to development. Projects, Policies, and their implementation without concerning 43 the female position and their empowerment in the society have an adverse impact on development globally. 44 The empowerment of women is an important and most substantial approach to development. Empowerment 45 has turned out to be one of the most widely discussed 'development terms' over the decades. Worldwide 46 different groups, governments, and non-government organizations, international aid agencies are working from 47 their respective fields to promote the empowerment of women. Women's empowerment is one of the most 48 important elements for the development of any nation.

One of the leading and frequently cited conceptual thinkers on women empowerment is Professor Naila Kabeer. 49 [3] Prof. Kabeer defines power as the capacity to make choices. Hence, those who are disempowered are either 50 deprived or limited in their choices. Empowerment is a process that gives power to the underprivileged and 51 deprived in society and increases their ability to make strategic choices. Dr. Kabeer's definition is parallel to the 52 World Bank's understanding that empowerment enhances an "individual's or group's capacity to make choices 53 and transform those choices into desired actions and outcomes." [4] [5] [6] Empowerment is a process that occurs 54 over time, making women agents who formulate choices, control resources, and make strategic life choices [4] [5] 55 [6] Consequently, the existence of feasible choices to accomplish desired outcomes is central to the concept of 56 57 empowerment. Dr. Kabeer explains that some choices have greater significance in terms of consequences than 58 other choices [5] [6] [7] and makes a distinction between first and second-order choices. First-order choices are 59 strategic life choices that are critical to how we want our lives, for instance, the choice of livelihood, whom to marry, whether to have children, etc. Second-order choices are often framed by first-order choices and are less 60 consequential. They are important for life quality but do not define life's parameters [8] Kabeer also explains 61 that exercising strategic choices should not limit one's ability to make future decisions [7] Kabeer outlines three 62 dimensions of empowerment, explaining these are the pathways through which empowerment occurs [7] The 63 first of these three dimensions is resources, which can be understood as the conditions of choice, meaning one 64 recognizes and can choose alternative options, or as this referred to in Kabeer's diagram, pre-conditions. The 65 second dimension is the agency, which is a process by which one distinguishes between strategic life choices and 66 second-order choices and makes choices in either arena [8] Resources and agency are thought of as substances 67 for empowerment. Some of the other literature and writers define these terms are often referred to as control, 68 awareness, or power [9] And lastly, the third dimension is achievements, which refers to the consequences of the 69 choices made [8] Change in one dimension can lead to changes in the others [7] These three dimensions can be 70 71 seen as interacting in the figure below. Women empowerment is a process, through which women achieve the 72 ability to control, take ownership over resources and make strategies of life choices ??Kabeer, 2001].

⁷³ 3 a) Women Empowerment: Framework of Dimensions and ⁷⁴ Indicators

75 The stated table incorporated the list of most commonly used dimensions of women's empowerment.

The contexts recommend that women's empowerment needs to occur along the following dimensions: economic, socio-cultural, familial and interpersonal, legal, political, and psychological. [10] These dimensions are very broad in scope though, and within each dimension, there is a range of sub-domains within which women may be empowered. The table cluster commonly and potentially useful indicators within various arenas and spheres of life.

Empowerment has turned out to be one of the most widely discussed 'development terms' in present days. Empowerment is a process that gives power to the underprivileged and deprived in society and increases their ability to make strategic choices. Women empowerment is dynamic, multidimensional, interlinked approach and an all-inclusive concept and having a considerable impact on women's life. It contains many aspects of life, including social status, family relations, emotional, psychological, and physical conditions, the financial situation of women. Empowerment of women is the process of enriching economic, social, and political status along with the psychological deliverance of women, the traditionally underprivileged segment in society.

⁸⁸ 4 III. Mobile Phone and Women: Global Scenario

Evidence has been mounting for decades that empowering women leads to positive economic and social changes globally. The most powerful ways to spread development, by increasing women's access to information, education, health care, and financial services, which in turn allows them to improve their quality of life, their families, and communities. Empowering more women with mobile phones can accelerate social, political, psychological, and economic development.

As per GSMA intelligence, the world-renowned, and industry-leading audit and consultancy firm Deloitte in 2007 found that a 10% increase in mobile phone penetration rates is linked to an increase of 1.2% of GDP in a low and middle-income country. [11] [Women and Mobile: A Global Opportunity, 2010]

In low and middle-income countries there is a direct relationship between a mobile phone with economic & business growth accompanied by social development. This is also admitted that empowered women play a substantial role in enlightening and improving standards of living for members of society. People at the base of the economic pyramid especially women need to be empowered with the right tools to find employment and build businesses that will enable them to eventually escape poverty. Among the foremost important of these tools is a

mobile phone. In the past few years, mobile phone ownership between women in low and middle-income countries 102 has increased rapidly. 103

To better understand the extent of the mobile usage of women, GSMA Connected Women in conjunction 104 with Altai Consulting with the help of the U.S. Agency for International Development (USAID), the Australian 105 Department of Foreign Affairs and Trade (DFAT), and the GSMA conducted a massive research work and 106 analysis on the report "Connected Women 2015: Bridging the gender gap: Mobile access and usage in low and 107 middle-income countries". [12] The findings focus points and highlights of the research were very ingenious. The 108 results clearly indicated that the use of mobile phones ensured women's empowerment. The key highlights of the 109 research are stated below. 110

IV. 111

$\mathbf{5}$ Research Methodology 112

The research was based on underneath main sources of primary and secondary information, explicitly: 11,000 113 closed-ended, face-to-face interviews with both men and women conducted in 11 countries: (Niger, India, the 114 Democratic Republic of the Congo (DRC), Mexico, Indonesia, China, Turkey, Kenya, Colombia, Egypt, and 115 Jordan.) According to the report of GSMA Connected Women 2015, some of the highlights are? 116 V. 117

Mobile Phones Empower Women 6 118

In the report, there are thousands of women were interviewed across 11 countries, including both mobile phone 119 120 users and non-users: ? At least 89% in every country said mobile phones help them stay in touch with friends and family; ? At least 74% in every country said it saves time; ? At least 68% in every country reported that they 121 feel safer with a mobile phone; ? At least 58% in every country said they felt more autonomous and independent; 122 and? At least 60% of women in 10 out of 11 countries said mobile phone ownership save them money, And? At 123 least 60% of women in every country claimed that a mobile phone helps make running errands (shops/Grocery 124 shopping-bargaining) either more convenient or less expensive. ? Among all the participating countries, at least 125 64% of working women say they have greater access to business and employment opportunities due to mobile. 126 And this is consistently higher than nonworking women. ? Female students report that mobile phones give them 127 or would give them comparatively easy access to mobile internet. And the mobile internet gives them better 128 access to educational opportunities at higher rates than both working and non-working women in all countries. 129 Earlier in 2010, to apprehend the range of the mobile phone usage, together, the GSMA Development Fund, 130 the Cherie Blair Foundation and Vital Wave Consulting have produced the groundbreaking report "Women and 131 Mobile: A Global Opportunity: A study on the mobile phone gender gap in low and middle-income countries". 132 The report reveals for the first time the magnitude of impact of the mobile phone between women in low and 133 middle income countries. [11] [Women and Mobile: A Global Opportunity, 2010]. Some of the key findings of 134 the groundbreaking survey are: ? Among the mobile user, nine in ten women feel safer because of their mobile 135 phones. ? Across the world, women are using the power of mobile phones to unlock economic opportunities. 136 ? Women business owners especially perceive the mobile phone as a very essential productivity tool for their 137 business, with more than half of the respondents saying they have used a mobile phone to earn additional income; 138 ? About 85% of women report that they feel more independent because of their mobile phones. ? In all the 139 countries, mobile ownership provides distinct benefits to women including better access to health, education, 140 business, and employment opportunities. ? Women surveyed across low and middle-income countries on three 141 continents believe that mobile helps them lead a more safe, secure, connected, and productive life. 142

VI. Women Empowerment: Benefit for Women to use Mobile 7 143 Phones 144

Across the world mobile phone ownership provides distinct benefits to women such as improved access to 145 education, health, business and employment opportunities along with empowered them economically, socially, 146 politically and psychologically. According to the survey conducted by GSMA intelligence on women across low 147 and middle-income countries on different continents and more than 2,000 women were participated in the survey, 148 believed that a mobile phone helps women lead more secure, connected and productive lives. The women surveyed 149 across the countries have responded the below statements absolutely. 150

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a) "I Feel Safer Because I Own a Mobile Phone" 9 152

As seen in the figure above, nine in ten women reported feeling safer and more connected because of their 153 mobile phones. The need for safety can be high for women in some areas of low and middle-income countries. 154 Situations that may have previously provoked anxiety for women have been reduced or eliminated through the 155 presence of a communication channel. Women mobile users and owners of each age, location, and socio-economic 156 status mention the increased feeling of safety and security that comes with mobile phone uses and ownership. 157

14 II. THE UNIQUENESS OF THE VILLAGE PHONE PROGRAM

Reinforcing how mobile phones address this universal need is a compelling way to communicate the benefits of a mobile phone to women.

¹⁶⁰ 10 b) "I Feel More Connected Because I Own a Mobile

Phone" Communicating with family and friends is a core activity of everyday life. At the same time, development and globalization are making individuals more mobile, reducing the time family members spend together at home. In many countries, migration of family members to different places, cities, or even abroad is distancing these individuals including women from their families and friends. In this situation, a mobile are often an important tool for maintaining contact with the family member. Nine in ten women surveyed report feeling more connected with friends and family because they own and use a mobile phone.

The men within the family also appreciate this level of connection. Almost all of the homemakers who received a mobile phone from their husbands note that it was given to them so that they could better stay connected with family and friends.

¹⁷⁰ 11 c) "I Feel More Independent Because I Own a Mobile

Phone" Due to continuous growth and expansion of economy in low and middle-income countries, more opportunities are created for women both inside and outside of the home. Women increasingly have the chance to go to school, work outside their homes or even find employment outside of their immediate towns and villages. Ownership and uses of mobile phone help to raise a sense of independence. Women need to take advantage of these opportunities by using the mobile phone as a tool to stay in touch with their family at home. Among the women mobile owners surveyed, 85% report feeling more independent because of their mobile phone.

177 12 VII. Contribution of Mobile phone for

178 Empowerment of Women in Bangladesh: Case Study

In Bangladesh, women's engrossment in telecommunication technology changes the behavioral aspect of women's lifestyle and thereby affects the society and economy as a whole. Mobile telecommunication introduces inordinate advancement and new development of women's empowerment, which refers to using, exchanging, and producing information and knowledge to advance women's status and quality of life.

Bangladesh is the second leading exporter of textiles and garments in the world. Though the majority of employment is in agriculture, comprising nearly 50% of the workforce and contributing 17% of the country's GDP. The country has diversified its economy through a growing industrial sector which contributes 29% of GDP. Another significant contributor to the development of the economy has been the propagation of telecommunications.

¹⁸⁸ 13 a) Case Study of Bangladesh: the Village Phone Program

The Village Phone Program, started in 1997, with the assistance of Grameenphone, Grameen Telecom operated 189 the national Village Phone program, alongside its own parent Grameen Bank. Grameenphone acting as the 190 sole provider of telecommunications services to rural areas of Bangladesh. Most Village Phone operators are 191 women living in rural and remote areas. According to Grameenphone and Grameen Telecom till September 192 2006, there were more than 255,000 Village Phones in operation in 55,000 villages around Bangladesh and 193 among them 97% were women. The village phone program provides a good income-earning opportunity to rural 194 women of Bangladesh. This program has given economic freedom to more than 400,000 Village Phone Operators 195 and their families who were women. Moreover, the Program is a unique initiative to provide universal access to 196 telecommunications services in remote, rural areas. The Program enables rural people who normally cannot afford 197 to own a telephone to avail of the service while providing the Village Phone women operators an opportunity to 198 earn a living. [13] i. The objectives of "Village Phone Program" 199

200 The key objectives of the village phone program are as follows:

? To provide easy access to telephones when needed all over rural Bangladesh specially for women; ? To introduce a new income-generating source for women; ? To bring the potential of the "Information Revolution"

to the doorsteps of women and villagers; ? To introduce telecommunications as a new weapon against poverty for women and rural people.

²⁰⁵ 14 ii. The uniqueness of the Village Phone Program

The Village Phone program contains many rural developments to empowered women: ? The program was the first rural development microcredit facility for women in a developing country. The target of the program was to create microenterprises based on information and communication technology (ICT) and services ? The program was the first rural development microcredit facility for women in a developing country to support the creation of businesses using digital, mobile telephony for their benefit.

? The program was the first private sector rural telecom initiative for establishing micro-enterprise that specifically targets poor village women. ? The program was the first telecommunications sector initiative with an unequivocal purpose of rural poverty reduction. [13] iii. Impacts on Women empowerment and poverty reduction

? The Village Phone program yields significant positive social and economic impacts, including relatively large 214 consumer surplus and immeasurable quality of life benefits for the women. ? The main reasons the village phone 215 owners stated for using the mobile phones are discussions of financial matters with family, including discussions 216 of remittances (42%) and social calls to family and friends (44%), accounting for 86% of all calls. This was 217 reported by Grameen bank. ? Bangladesh is a labor-exporting country with many rural villagers (predominantly 218 men) working in the Middle East Countries. The Village Phone acts as a powerful instrument to reduce the risk 219 involved in remittance transfers to their family members, and assist in obtaining accurate information. ? Using 220 a mobile phone for social calls to family and friends frequently involves the share of information about market 221 prices, market trends and currency exchange rates, etc. These make the Village Phone an important tool for 222 enabling household enterprises to take advantage of market information to increase profits and reduce production 223 expenses for women. ? Significantly, the income that women owners generate from the Village Phone is about 224 24% of the household income on average. In some cases, it was as high as 40% of the household income. 225

Village Phone women operators have become socially and economically empowered with the uses of their mobile phones. [13]

²²⁸ 15 b) Community Information Centers

To empower rural communities particularly women, the most important issue is access to unrestrained communication to the world for advancing social and economic developments. Technologies particularly telecommunication can create new types of economic activities, innovate employment opportunities and enhance social interaction and networking among people.

To create a sustainable structure that equally entails the utilization of significant resources to alleviate poverty, empower women, and develop a culture of education and information, Grameenphone-the leading mobile operator of Bangladesh has developed shared premises to promote social entrepreneurship. This initiative has been developed to alleviate poverty by enclosing the gap in communication through the Volume XXI Issue III Version I 30 () provision of access to information to rural people, especially for women.

Grameenphone Community Information Center (CIC) is aimed at providing internet access and other 238 communications services to rural areas. In February 2006, 16 CICs were established across the country as a 239 pilot project. In this project, Grameenphone provides GSM along with internet services i.e. EDGE/GPRS/3G 240 infrastructure and technical support, and others partners are involved in selecting and training entrepreneurs to 241 run the village centers. In the respective areas, these CICs are used for a wide diversity of business and personal 242 purposes. From accessing health and agricultural information to using government services to video conferencing 243 with relatives overseas, CICs are used. Here mobile operator also trains the women entrepreneurs so that they 244 can give people advice on how to set up an e-mail account and best make use of the Internet. 245

246 Grameenphone CIC project is giving more than 20 million people the chance to use and access to internet and 247 e-mail for the first time. Following a successful pilot project, Grameenphone planned to launch 560 centers in 248 communities throughout Bangladesh by the end of 2006. Within a very short period, the project has become a massive operation with over 500 Community Information Canters operating in nearly 450 Upazilla's (sub-district). 249 The centers are now located almost in each Upazila (sub-district) of Bangladesh. As a result, up to 15 villages 250 251 containing up to 40,000 people including women are within the reach of each CIC. In this information center, there are desktop computers connected to Grameenphone's existing GSM mobile network as well as available 252 GPRS/EDGE/3G technology to offer voice, data services, and internet uses. 253

This initiative by the mobile operator through mobile communication serves local community needs. Bridging 254 the "digital divide" by providing information access to rural people including women. Alleviated poverty and 255 256 empowered women. [14][15] c) Empowering women through JITA (A Care -Social Business) JITA -Bangladesh a 257 Care -Social Business, is dedicated to empowering women through a network of enterprises, creating employment opportunities, and improving access to markets for underprivileged consumers through a mobile communications 258 channel. [16] To create a replicable network that will help generate income opportunity for rural destitute women, 259 JITA, a joint venture social business of CARE International and Danone Communities, was originated in 2004 260 as Rural Sales Program which was driven through Grameenphone's strong sales network and product. The 261 project has been designed in a way that helps to empower women. JITA creates consumer impact on health-262 hygiene-energy through an innovative network of enterprises of women entrepreneurs selling door to door. This 263 allowed companies and products to reach out to the remotest areas of the country where it was difficult to reach 264 communities by traditional means. The project accomplishes an innovative system of enterprises consisting of 265 distribution hubs, delivery service persons, and sales ladies branded as Aparajitas. Its marketing channel of women 266 267 who purchase stock from the hubs and sell door to door to the rural base of the consumers through this project. 268 JITA has enabled women to have a stable livelihood through the sale of particular products like Grameenphone's 269 mobile scratch card or recharge services (mobile electronic recharge), in addition, selected products of BATA, 270 Unilever, etc. [16].

Within a year JITA has reached 3 million consumers, all by empowering 7,650 women across 48 districts and helped in developing 255 enterprises with base employment of 510. Grameenphone has also taken initiative in providing the women with training on selling mobile electronic recharge (mobile scratch cards and mobile Flexiload) systems which helped them have a sustainable livelihood. i. Objective achieved ? 11,000 underprivileged women empowered through income and employment. ? 450 enterprises developed through increased linkages with companies. ? 1,000 of employment creation. ? Improved access to markets for 7 million
underprivileged consumers mostly women. [16] In Bangladesh, the current doctor-patient ratio is only 5.26 per
10,000 population. In rural areas, the ratio is far worse. Moreover in rural areas patients live far away from
health care delivery sites along with a great shortage of doctors and physicians. Different medical service through
mobile phones by the ministry of health & family welfare Bangladesh are:

²⁸¹ 16 d) Health Service through Mobile Phone for women

The main challenges of the health system of Bangladesh are accessibility and affordability for rural and remote areas. The same goes for women as well.

Considering the issue in mind and a mobile phone has been given to each district and sub-district hospital of Bangladesh as a Mobile hotline for health service. The numbers of these mobile phones have been publicized locally. Doctors receive calls and provide services in these numbers 24 hours a day. Local people including women get free health advice and services by calling these numbers without coming to hospitals in person. Mobile communication has created the opportunity to get medical advice and services for women who are living in rural and remote areas.

After launching this mobile support for medical service, communication with doctors is instantly available no matter whether it is late night, an acute health problem, or a long distance from the hospital. Patients including women who are not able to come to a hospital can take advice from the doctor through mobile phone.

²⁹³ 17 e) Telemedicine Service

With the instruction and help of the Ministry of health & family welfare, Bangladesh, high-quality telemedicine 294 service has been provided in different highly specialized hospitals in the country. Among these, there are 295 2 specialized hospitals namely "Bangabandhu Sheikh Mujib Medical University" and "National Institute of 296 Cardiovascular Diseases". In addition, 3 district hospitals i.e. Shatkhira, Nilphamari, and Gopalganj, and 3 297 sub-district hospitals i.e. Pirgonj, Dakope, and Debhata are also providing this service. Through this service, 298 admitted patients in district and sub-district level hospitals can take necessary suggestions from the doctors of 299 specialized hospitals. In addition, web-camera has been given in each subdistrict, district, medical college, and 300 post-graduate institute hospitals, so that rural people especially women can get support easily. These hospitals, 301 therefore, can also give telemedicine service through video conferencing platform with the help of mobile data 302 service i.e. 3G/EDGE. Which is very helpful for women also. 303

³⁰⁴ 18 f) Pregnancy Care Advice for Women through SMS

Women in remote, rural areas along with urban areas as well are not able to visit the hospital for many reasons. It is even more difficult for pregnant women. Considering the fact in mind Ministry of health & family welfare, Bangladesh launches the "Pregnancy Care Advice for Women through SMS". Here the pregnant woman can get appropriate advice through SMS if she registers herself with the service through her mobile phone. This pregnancy care advice service is operated by the MIS unit of DGSH (Directorate General of Health Service).

The registration process of this service is easy. In the SMS option of the mobile, she needs to type the following codes and send them to 16345 to avail of the service. The format is: "dghs reg lmp_date mobile_no. name" Example: dghs reg 14082016 01713XXXXX Tahmina (Explanation: lmp is the last menstrual period in the format of ddmmyyyy. Mobile number is that the phone number where she wants to receive the SMS advice. Name is her name.)

On successful registration, she will receive an instant SMS reply from the shortcode, which will thank her for registration, inform her expected date of delivery, and advise for the following. Afterward, she will receive SMS with medical advice and suggestions automatically from time to time. The advice is jointly developed by doctors, a group of subject experts from academic institutions, WHO, UNICEF, and the reproductive health program of the ministry.

³²⁰ 19 g) Health Care Call Centre 16263

Along with SMS-based Pregnancy Care Advice for women, the government of Bangladesh has launched a mobilebased health care call center and helpline in a bid to provide cost-effective, equitable, and quality healthcare service to the people including women with 24-hour services and advice from doctors. The call center number is 16263 and anyone can reach this health care service from their mobile whenever required. The service has been introduced by the DGHS (Directorate General of Health Services) with funding from UKAID in Bangladesh.

³²⁶ 20 h) Safe Motherhood and Infant Care (SMIC)

Everywhere motherhood is notable as one of the most extraordinary times in a woman's life. Safe motherhood is not only vital to avoid premature and painful maternal and child deaths, but also to nurture a healthy and prosperous nation. As a result, reducing the infant death rate and improving maternal health were identified as two of the United Nations' eight-millennium development goals. Grameenphone's Safe Motherhood & Infant Care Project is meant to make sure, moreover to ensure free yet quality safe motherhood and infant care services to poor mothers and their infants throughout Bangladesh. The SMIC project also aims to support necessary infrastructure development and the expansion of basic healthcare services, especially in hard-to-reach and remote areas of the country. The project was launched in 2007.

The program has launched in partnership with Pathfinder International and USAID's network of Smiling Sun clinics in 61 districts. In this SMIC project, free primary healthcare services are being provided by health professionals via 318 static clinics, 8000 satellite clinics, and 6000 community-based health workers across the country. In addition, Grameenphone has introduced clinics-on-wheels (i.e. mobile mini-hospital) to enrich these existing service touch-points, to reinforce the accessibility of services in remote areas. During the project period (2007-2010) a complete of 1,703,767 maternal and child care services were provided to economically disadvantaged mothers and infants. [17]

³⁴² 21 i) Education through Mobile

Mobile phones ensure inclusive and equitable quality education for all including women. Mobile technology promotes lifelong learning opportunities for women. This technology support students and teachers in integrating mobile technologies into the classroom. Mobile also enables access to greater learning opportunities for women in urban hubs and remote locations.

347 **22** C

BBC Janala, Bangladesh is a large-scale mobile-based English teaching tool, which is very helpful for women. This opportunity has effectively transformed mobile phones into a low-cost educational tool. Any mobile user can dial a short code from her mobile to access bilingual audio lessons and can learn and improve their English language.

³⁵² 23 j) Procedures of online school

The idea of "Online School" is that the teacher conducts class from a distant location using video conferencing 353 technology with the help of moderators within the actual class environment. The main objective of the Online 354 School is to ensure quality education for underprivileged and isolated children living in the urban slums and remote 355 areas. In August 2011, the first online school has started with 80 Students. The program was very successful, 356 an assessment of performance was done among similar types of schools (Banani School and Rayerbazaar School) 357 and Online School. The findings were clear and very positive. The mobile operator has already launched this 358 "Online School" program in 10 schools located in Gazipur, Gaibandha, Rajshahi, Madaripur Bandarban, Teknaf, 359 Rangpur, Dinajpur, Hobigonj, and Laxmipur. [17] 360

³⁶¹ 24 k) Mobile Helpline Centre for Violence against Women

Research conducted by the UN in 2006 on gender-based violence reported that one in every three women in the world was the victim of violence. Correspondingly a nationwide study conducted in Bangladesh in 2008 by the "Multi-Sectorial Program" on "Violence against Women" reported that 58 percent of the respondents between the age of 10 and 49 were the victims of violence.

The most common form of violence is physical assault which is followed by sexual assault and harassment against women and girls. Psychological or mental violence either separately or inclusively occurs with other forms of violence. Though this type of is high but the victims are not aware of such violence. In addition, the social stigma, sense of insecurity, ignorance about the legal provisions, supports, and services of the women victims remain silent. To break the silence, stop violence against women, and empower women psychologically 'The Ministry of Women and Children Affairs' established the National Helpline Centre for Violence against Women and Children.

This mobile helpline is a toll-free number and available 24 hours a day, seven days a week. It is accessible from all parts of Bangladesh and any woman can make a call from her mobile phone. It's a confidential service that offers legal advice, police assistance, telephone counseling, referrals to other organization's services, information regarding violence and psychological harassment issues against women.

377 [18]

³⁷⁸ 25 Main Features of the Helpline Centre

According to the Bangladesh Ministry of Women and Children Affairs the main features of this helpline center are:

? Centre remains open 24/7 and 365 days of the year. ? Confidential Helpline for one-to-one communication
to get support for women. ? The hotline agents maintain a database of GO and NGOs who can provide various
support instantly. ? Referral support for women in making links with other relevant services and stakeholders.
? The program develops social network and raise awareness between mass people to combat Violence against

- 385 Women.
- 386 [18]

387 26 Service and Supports

As per the guideline of the Bangladesh Ministry of Women and Children Affairs the main support and services provide by the helpline are: ? Rescue ? Legal Aid ? Police assistance ? Give suggestions ? Counseling Service ? Medical assistance ? Awareness raising ? Help to arrange arbitration ? Link-up victims to other services ? Protect and prevent Early marriage ? Provide authentic information and contact details for various supports to women.

³⁹³ 27 Types of call attend by helpline center

National Helpline center for violence against women and children attends the following types of calls: ??18]
Volume XXI Issue III Version I l) e-Krishok Bangladesh is an agricultural country and most of the people are
small and marginal farmers. The future of sustainable agricultural growth and food security in Bangladesh fully
depends on the performance of small and marginal farmers. But still, they are not able to maximize the benefits
of its full potential due to lack of availability and access to relevant information on agriculture, extension, and
market.

Mobile operator Grameenphone, in association with the Bangladesh Institute of ICT in Development (BIID) and Department of Agricultural Extension (DAE), launched a campaign named "Smart Farmer, Smart Future" to empower the farmers. The project was basically on the use of ICT-enabled extension and market linkage services on mobile and internet-based advisory services. The program was rolled out under BIID's 'e-Krishok', an innovative tool pioneering the application of information technologies in agricultural practice in remote rural areas that connects illiterate, semiliterate, and literate farmers from remote areas to an expert in their districts for seeking personalized advice for their agricultural activities.

The "Smart Farmer, Smart Future" campaign was designed by BIID to promote awareness, training, and idea generation in the field of agriculture. The campaign leads to the Smart Village initiative to ensure the demonstration of the power of the Internet to the rural communities to improve livelihood and empower people including rural women.

The program represents an enormous breakthrough that goes beyond the delivery of price and market information through mobile phones. It has become a source of knowledge, data, and information transfer for farmers from agriculture scientists, functionaries, and markets through the use of mobiles.

The program increases efficiency, productivity and improves their livelihood. It's being believed that increasing their productivity and income will make a major contribution towards the reduction of hunger and poverty, empower women and, in the long term, support rural development in Bangladesh.

417 28 m) Krishi (Agricultural) Call Centre 16123 by Ministry of 418 Agriculture

The Department of Agricultural Extension (DAE) has launched an agriculture call center for farmers to provide 419 information on agriculture, fisheries, livestock, or any other agriculture-related problems to the farmers on dated 420 June 14, 2014, officially. The Call Center number is 16123. The women who are involved in agricultural activities 421 are now able to receive necessary information by calling 16123 from any mobile phone. They can reach this call 422 center and may receive relevant and expert advice, information, and guideline regarding agriculture, fisheries, 423 and livestock, or any other problems immediately. The call center executives are agriculture graduates who are 424 responding to their queries. Thus the women who are involved in agriculture, fisheries or livestock, or any other 425 agro product are directly benefited through their mobile phone. 426

427 29 n) Mobile Technologies and Political Empowerment

428 Democratic government and development organizations have promoted participation and participatory models in 429 both policy advice and program implementation for years. At this time, mobile technologies are doing just that 430 by offering new opportunities for enhancing access and participation for greater numbers of people, especially for 431 women.

Access to and the use of mobile technologies opens the possibility of new communication channels and gives 432 'voice' to women who previously had none. M-governance initiatives through mobile phones provide greater 433 inclusion and fostering broader participation of women. It is noteworthy that m-governance has its potential 434 to strengthen the 'demand' side of the governance equation by giving people the opportunity to demand better 435 436 services, while governments act as suppliers of both services and information. Mgovernance can thus provide 437 women with critical tools to better engage with public institutions. Mobiles are allowing women to be engaged in 438 political and socio-economic decision-making processes, offering new avenues for achieving key governance goals 439 related to elections, civic engagement, and access to information. Presently the most well-known and important platform for communicating, collecting, and mapping inputs from citizens is mobile phones. The mobile platform 440 enables and includes women for election-related information and communication. Only a basic mobile phone with 441 SMS capacity has allowed and aware them for this participation. Mobile phones have become an important tool 442 for civil society organizations, advocacy groups, and individual activists including women of Bangladesh. Not 443 only fostering local mobilization but also for national issues of the country. Civic campaigning and mobilization 444

445 are being enhanced by mobile platforms that allow organizations to reach large numbers of women with new 446 information with a simple SMS subscription which creates political awareness to women.

447 **30** VIII. Findings from the Case studies

Mobile Telecommunication has a profound impact on national economies worldwide. Both in developed and 448 developing countries, mobile phones have contributed to too many aspects of economic, political, and social life. 449 Women are about half of the Bangladesh population though, their social eminence and condition both in urban 450 and rural areas remain very low. The lives of women in Bangladesh have engrossed around their traditional roles. 451 During the period 1980s, 82% of the women lived in rural areas whereas only 10% of the women were involved in 452 professional services. Today, Bangladesh stands globally as an example of women empowerment and leadership. 453 The contribution of women is evident in every sphere of society and it is perpetually increasing due to 454 455 their empowerment. Their active participation in every sector of society has made a great impact on national 456 development. Here mobile phone is playing a key role in women's empowerment. Mobile phones have been 457 established to be one of the most powerful tools for their empowerment.

458 Women feel safer with a mobile phone in both urban and rural areas and communities. Women with a mobile 459 phone feel more connected and can access any emergency numbers and contacts whenever required which makes 460 them more psychologically empowered.

Mobile technology is used by victims of sexual and gender-based violence to report crimes and capture witness evidence. "National Helpline Centre for Violence against Women and Children" by the Ministry of Women and Children Affairs of Bangladesh is an instance of psychological empowerment of women. This mobile hotline line is helping to stop violence against women and to empower women psychologically.

Mobile technology can also be used to educate citizens including women about their legal rights and train them in collecting forensic evidence. Mobile technologies also enable women to communicate with law enforcement agencies whenever required and provide access to justice including seeking and receiving legal advice.

For female farmers, who rarely receive expert assistance from extension workers or other agricultural professionals, mobile phones are an effective tool for accessing "just-in-time information" to increase their productivity through different agriculture-related helpline from mobile operators and government organizations. Moreover, mobile phones are providing women with access to information about shifts in crop and weather patterns caused by climate change and natural disasters.

Mobile technology has been used to improve women's health including improving access to lifesaving health services during delivery, increasing use of health information during and following pregnancy, and improving the availability and quality of health services in the community and health facilities through "Telemedicine Service", "Telemedicine Service in Community Clinics", "Pregnancy Care Advice for Women through SMS", "Health Care Call Centre", "Safe Motherhood and Infant Care" etc. by mobile operators, government and non-government organizations.

In the case of education and literacy mobile phones are playing a very significant role through the online school, SMS, and IVR-based literacy programs. Which have become a very effective tool in teaching literacy and promoting girls' education in Bangladesh.

Mobility and Independence are ensured by using the mobile phone. Women of Bangladesh feel more independent with a mobile phone and can work with confidence. Women recognize mobile phones as a tool for improving their safety and peace of mind in Bangladesh.

485 **31** IX.

486 32 Conclusion

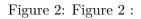
487 **33 C**

political and overall empowerment in developing countries. Telecommunication is most powerful to combat 488 poverty and give the people a chance to change their fate, their economy, their society and to empower themselves 489 to change the world, especially for women. In Bangladesh, women's engrossment in mobile telecommunication 490 technology changes the behavioral aspect of women's lifestyle and thereby affects the society and economy as a 491 whole. The mobile phones introduces inordinate advancement and new development of women's empowerment. 492 Women have used mobile phones to organize themselves, advocate change, and participate in civic and community 493 494 affairs. Utilizing mobile technology becomes a powerful catalyst to advance women's status and their quality of 495 life

The study demonstrates women empowerment stories of Bangladesh through mobile phone. Here the main discussion point is how mobile phone ensures overall empowerment of women in Bangladesh. The case studies which are discussed in this section are: Village Phone program, Community Information Center (CIC), JITA a social business program, Mobile Health Helpline, The mHealth platform, Telemedicine Service by Ministry of Health & Family Welfare Bangladesh, e-Krishok by mobile operators, Mobile applications for Agricultures, 'Krishi Call Centre' by Ministry of Agriculture, Mobile Financial Service, National Helpline Centre for Violence against Women and Children by Ministry of Women and Children Affairs, etc. are the absolute example of women

- ⁵⁰³ empowerment in Bangladesh. Mobile phone is transforming overall socioeconomic, political and psychological lifespan of women in Bangladesh. And thus empowered women of Bangladesh inclusively.

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professional opportunities

family

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Dim &Insinsn hold				Community	
	Women's	control	over	Women's	acc
	income,	ownership	of	employment, ownership	of
Eco	assets, relative contrib pr tonfac mily support; acco	assets and land; access to credit; involvement and/or r			
	resources.			associations;	acce
	Women's	freedom	of	markets Women's visibility in ar	nd
	movement;	lack	of	access to social spaces;	
	discrimination against		5	access	to
	women	and	girls;	transportation; particip	ation
	commitment to educat	ing		extra-familial groups an	d
	girls/daughters, Participation			social networks; shift in	
Soción making, control over sexual domestic decision relations, contraception, Cultural				patriarchal norms (such as s	

time of marriage, spouse

in myth and ritual.

selection, ability to make

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