

Women Empowerment of Bangladesh: Role of Mobile Phone

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Abstract

Telecommunication particularly Mobile technology is one of the most powerful tools worldwide. Mobile phones play a foremost part in development programs around the world. Mobile technology surpasses geographies, cultures, and socioeconomic status and offers wide-ranging benefits to women and their empowerment. This technology presents us with an incomparable opportunity to improve social and economic development and positive impact on women's lives. Large sections of women in Bangladesh are living in rural areas. The majority of them are still tradition-bound and are in a disadvantageous position. Because of inequality in women's access to and participation in all 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 to make their own choices, improve their social network, change their attitudes and change their life. 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. The 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 their quality of life. The objective of the study is to identify the impacts of mobile phones on empowering women of Bangladesh. Moreover, examining the role and effects of mobile phones in terms of economic empowerment, social empowerment, political empowerment, and psychological empowerment are analogous objectives of this research.

Keywords: Empowerment, Women Empowerment, Telecommunication, Mobile Phone, Mobility

INTRODUCTION

Considering the total population, women persist half of the population of the world. Conversely, when we consider the number of poor people of the world, women are the majority and the proportion is about 70 percent of the total poor. The women are the poorest of the poor by any extent. Moreover, women are exposed to great discrimination in economic, education, health, and social services access worldwide. Women more than men, have to balance the complexities of surviving in extreme situations.

Women are deprived, powerless and underprivileged economically, socially, politically, and psychologically and their possession of properties and access to resources is very minimal in both developing as well as developed countries. Gender development index across the globe reflects that there are clear inequalities between men and women. Women are exposed to great discrimination in economic, education, health, and access to social services worldwide. Alternatively, the array of women's economic activities in developing countries is very broad. In many of the countries, women's real contribution to the national level is neither yet considered nor counted in GDP. Besides, there are increasing cases of public and domestic violence is being seen against women due to inexplicably high and increasing levels of poverty amongst women around the world.

Information and Communication Technology (ICT) has played a most important part in development programs across the globe. Among all the elements of ICT, telecommunication is perhaps the most powerful catalyst. Information and Communication Technology is fully dependent on telecommunication particularly on the mobile phone now a day. The mobile phone is one of the most powerful technological advancements in the modern world today in the area of communication and development. It has considerably contributed to the economic development of the society by allowing the people to change their fate as well as their economy and overall empowerment. The wide use of the mobile phone has greatly contributed to the development programs and enhanced the social, economic, political, and overall empowerment of people in developing countries, especially for women.

Mobile technology is indispensable to comprehending the Sustainable Development Goals (SDGs) and addressing social challenges worldwide. In September 2015, the United Nations member states, including the heads of state and government have adopted the SDGs and their targets and committing to work together to change the world by 2030. Mobilephone is very essential for achieving the SDGs. The ubiquity and affordability of mobile technology provide a unique platform for improving

and enhancing social and economic development globally.

According to the report “2016 Mobile Industry Impact Report: Sustainable Development Goals” by GSMA and Deloitte, which assesses the performance and impact of the mobile industry on the SDGs, finds that mobile technology is already contributing to all the 17 SDGs to varying degrees. Mobile technology is helping to achieve the SDGs across the world, leveraging the power of mobile networks to accelerate this journey in a way that no other technology can. Mobile technology provides access to tools and applications that address a wide range of socio-economic challenges as well as enabling new technologies and innovations to build more efficient and environmentally sustainable societies.

The mobile phone has intruded on all aspects of our lives. It has enabled people to connect globally from the most rural part of the country to the modern urban community. The use of mobile technology can provide unlimited opportunities for economic development and social engagement through the exchange of information, new innovative thinking, and improved tools.

Across the globe, countries have recognized mobile technology as the best effective tool in catalyzing economic activities for efficient governance and developing human resources. It has brought about unprecedented changes in the way people communicate and conduct business. With the advent of mobile technology, it has become possible for the common people to access global information. Moreover, mobile technology has become an all-encompassing tool for good governance, sustainable development, globalization of the economy, and women empowerment.

Status of women in Bangladesh

In Bangladesh, as elsewhere in the developing world, women play a central role in the family, community and social development. However, women often remain invisible and unheard. It is the women more than men who have to balance the complexities of surviving in extreme poverty, yet the women are excluded from discussion because they are often illiterate and lack confidence and mobility. Because of inequality in women's access and participation in all communication systems and their lack of sufficient mobility to promote their contribution to society, women are deprived in every aspect of life.

The Objective of the Study

The broad and the specific objectives of the research are:

To identify the roles and impacts of telecommunication particularly mobile phones for empowering women in Bangladesh.

Specific Objective

To examine the roles of mobile phone in Bangladesh for women empowerment in terms of:

- Economic empowerment
- Social empowerment
- Political empowerment
- Psychological empowerment

Research Methodology

The research has followed a mixed approach in methodology which are:

- Qualitative Research Methodology: Qualitative data has been explored methodically.
- Quantitative Research Methodology: Quantitative data has been analyzed statistically.

Moreover, the research has specifically followed the methods below:

Research Method: Survey Research Method

Sample Collection: Purposive sampling method has been followed for sample collection.

Questionnaire: Structured and Close-ended.

Respondents: 240 women have been selected on a “Purposive Sampling” basis from 10 districts of Bangladesh based on the following criteria:

From:

- Most Tele-density Districts: (highest % of mobile users)
- Least Tele-density Districts: (lowest % of mobile users)
- Mid Tele-density Districts: (32nd - 33rd % of mobile users)

Mobile User Respondents: 200 Women

Mobile Non-User Respondents: 40 Women

The unit of analysis is chosen in the research questionnaire is individual women. For this study, a well-structured questionnaire was framed to collect primary data. The questionnaire was distributed to the respondents of the selected 10 districts on a purposive sampling basis. The research focuses on both comprehensive or broad level and individual level impacts. For understanding the extent of influences of mobile phones on women empowerment, exploratory research has been conducted by purpose. The research has followed a mixed approach in methodology. Based on geographical Tele-density, ten districts of Bangladesh and 240 women respondents have been selected on a “Purposive Sampling” basis for the survey. Four key indicators of empowerment covering some dimensions were chosen for the determination of empowerment. Primary survey data has been collected for women of the ten selected districts based on the following criteria:

❖ **Most Tele-density Districts:** Top six districts which have the highest number and percentage of

mobile phone users in Bangladesh. The districts are selected based on the total number of mobile users and the percentage of dispersion. (Table:3) ‘District wise: Mobile User Dispersion Percentage in Bangladesh’). These 6 districts represent 50.92% of total mobile users in Bangladesh.

- ❖ **Mid Tele-density Districts:** Middle two districts of the table are the 32nd and 33rd districts according to Tele-density. (Table: 3) These 2 districts represent 1.67% of mobile users of the country.
- ❖ **Least Tele-density Districts:** The bottom two districts of the table are based on the lowest percentage of mobile users.

Limitation of the Study

Enduring research is a meticulous task. As a researcher has faced some barriers which have been articulated below.

- ❖ Sampling for the questionnaire was purposive and not random. Sample size does not permit robust statistical analysis, so the researcher was limited to descriptive and discussion of obvious associations.
- ❖ Telecommunication-related data are fast evolving and changing every day. In some circumstances when there was a need to collect relevant data from different government organizations, it was found that their data were not up to date.
- ❖ Telecom operators maintain strict confidentiality about their information. Sometimes it is very difficult to get relevant information from them.

LITERATURE REVIEW

‘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 considerable impact on many aspects of life, including social standing, family relationships, and emotional and physical health conditions along with financial stability [2]. Empowerment of women is an important and most substantial approach of development. Projects, Policies and their implementation without concerning the female position and their empowerment in the society have adverse impact on development globally. The empowerment of women is an important and most substantial approach to development. Empowerment has turned out to be one of the most widely discussed ‘development terms’ over the decades. Worldwide different groups, governments, and non-government organizations, international aid agencies are working from their respective fields to promote the empowerment of women. Women empowerment is one of the most important elements for the development of any nation.

One of the leading and frequently cited conceptual thinkers on women empowerment is Professor NailaKabeer. [3] Prof. Kabeer defines power as the capacity to make choices. Hence, those who are disempowered are either deprived or limited in their choices. Empowerment is a process that gives power to the underprivileged and deprived in society and increases their ability to make strategic choices. Dr. Kabeer’s definition is parallel to the World Bank’s understanding that empowerment enhances an “individual’s or group’s capacity to make choices and transform those choices into desired actions and outcomes.” [4][5][6] Empowerment is a process that occurs over time, making women agents who formulate choices, control resources, and make strategic life choices [4][5][6] consequently, existence of feasible choices to accomplish desired outcomes is central to the concept of empowerment. Dr. Kabeer explains that some choices have greater significance in terms of consequences than other choices [5][6][7] and makes a distinction between first and second order choices. First order choices are 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 consequential. They are important for life quality, but do not define life’s parameters [8] Kabeer also explains that exercising strategic choices should not limit one’s ability to make future decisions [7]

Kabeer outlines three dimensions of empowerment, explaining these are the pathways through which empowerment occurs [7] The first of these three dimensions is resources, which can be understood as the conditions of choice, meaning one recognizes and is able to choose alternative options, or as this referred to in Kabeer’s diagram, pre-conditions. The second dimension is agency, which is a process by which one distinguishes between strategic life choices and second-order choices and makes choices in either arena [8] Resources and agency are thought of as substances for empowerment. Some of the other literature and writers define these terms are often referred to as control, awareness, or power [9] And lastly, the third dimension is achievements, which refers to the consequences of the choices made [8] Change in one dimension can lead to changes in the others [7] These three dimensions can be seen as interacting in figure below.



Figure 1: Prof.NailaKabeer’s Conceptual Framework of Women’s Empowerment.

Women empowerment is a process, through which women achieve the ability to control, take ownership over resources and make strategies of life choices [Kabeer, 2001].

Women Empowerment: Framework of Dimensions and Indicators

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]

Table 1: Measuring Women Empowerment: Framework of dimensions and indicators.

Dimension	Household	Community	Broader Arenas
Economic	Women’s control over income, ownership of assets, relative contribution to family support; access to and control of family resources.	Women’s access to employment, ownership of assets and land; access to credit; involvement and/or representation in local trade associations; access to markets	Women’s representation in high paying jobs; number of women CEO’s; representation of women’s economic interests in macro-economic policies, state and budgets.
Socio-Cultural	Women’s freedom of movement; lack of discrimination against women and girls; commitment to educating girls/daughters, Participation in domestic decision making, control over sexual relations, contraception, time of marriage, spouse selection, ability to make childbearing decisions, freedom from violence.	Women’s visibility in and access to social spaces; access to modern transportation; participation in extra-familial groups and social networks; shift in patriarchal norms (such as son preference); symbolic representation of the female in myth and ritual.	Women’s literacy and access to a broad range of educational options; Positive media images of women, their roles and contributions. Regional and national trends favoring women in things like age of marriage, political, legal and religious support for such shifts, health systems providing easy access to contraception, reproductive health service.
Familial and Interpersonal	Participation in domestic decision-making; control over sexual relations; ability to make childbearing decisions, use contraception, access abortion; control over spouse selection and marriage timing; freedom from domestic violence	Shifts in marriage and kinship systems indicating greater value and autonomy for women (e.g. later marriages, self-selection of spouses, reduction in the practice of dowry; acceptability of divorce); local campaigns against domestic violence	Regional/national trends in timing of marriage, options for divorce; political, legal, religious support for (or lack of active opposition to) such shifts; systems providing easy access to contraception, safe abortion, reproductive health services
Legal	Knowledge of legal rights and mechanisms; domestic support for exercising rights.	Community mobilization for rights; campaigns for rights awareness; effective local enforcement of legal rights.	Laws supporting women’s rights, access to resources and options; Advocacy for rights and legislation; use of judicial system to redress rights violations.
Political	Knowledge of political system and means of access to it; domestic support for political engagement; exercising the right to vote.	Women’s involvement or mobilization in the local political system/campaigns; support for specific candidates or legislation; representation in local bodies of government	Women’s representation in regional and national bodies of government; strength as a voting bloc; representation of women’s interests in effective lobbies and interest groups
Psychological	Self-esteem; self-efficacy; psychological well-being	Collective awareness of injustice, potential of mobilization	Women’s sense of inclusion and entitlement; systemic acceptance of women’s entitlement and inclusion

Source: Malhotra, A., Schuler, S. R. and Boender, C. (2002), “Measuring Women’s Empowerment as a Variable in International Development”. Working paper. Washington, DC: World Bank. (Background Paper for the World Bank Workshop on Poverty and Gender: New Perspectives, Final Version: June 28, 2002)

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.

Theoretical Framework: Women Empowerment Model

Women empowerment is a holistic concept. It is a dynamic, multi-dimensional, interlinked approach and its' key dimensions and indicators are social, cultural, political, psychological, and economic aspects of empowerment. The study has deliberated

the relevant theories and concepts, frameworks, and elements of women empowerment. A primary framework has been developed, based on Professor NailaKabeer's conceptual framework of Women's Empowerment as a theoretical model for the research. Accordingly, the research has given due emphasis to dimensions and indicators of women's empowerment. Besides, a theoretical model, indicators of women empowerment, and the new model of women empowerment have been designed for the study.

Model: Women Empowerment Framework

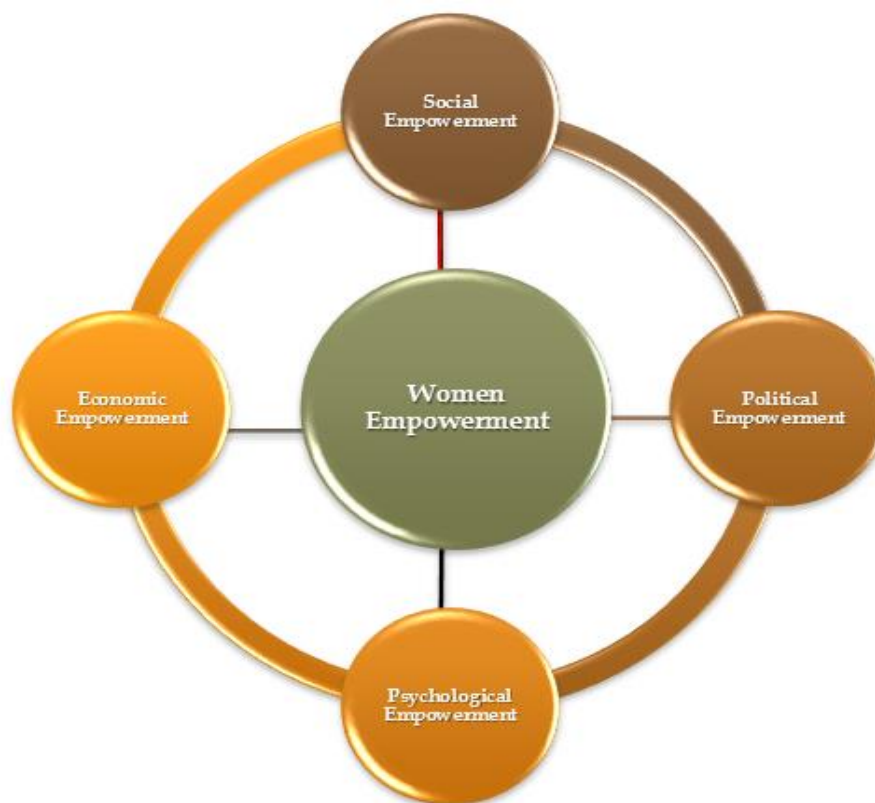


Figure 2: Women Empowerment Model

Indicators of women empowerment are:

- ❖ Economic Empowerment
- ❖ Social Empowerment
- ❖ Political Empowerment
- ❖ Psychological Empowerment

Economic Empowerment of Women

Economic empowerment includes economic contribution both to household welfare and individual level, access to socio-economic resources, and ownership of productive and non-productive assets. This will increase women's earning capacity, bargaining power, and control over the resources. Moreover, economic empowerment will upsurge the role in the household economic decision-making capacity, meeting the basic needs and altogether improving self-reliance, thereby reducing women's

economic subordination. Key forms and features of Economic Empowerment are Economic contributions to household welfare and individual level access to socio-economic resources and ownership of productive and non-productive assets.

Social Empowerment of Women

Social empowerment of women is implicit as the process of developing a sense of autonomy, self-confidence, and acting individually and collectively to change social relationships and institutions. It includes the participation of women in household decisions. The amplified role in household decision-making would permit them to improve their self-determination, bargaining power, and control over resources, self-esteem, autonomy, and status and power relations within households and outside. Key forms and features of Social and Cultural empowerment are new knowledge and information

Awareness and understanding of issues Skill, abilities and competence, Support, Friendship, and inspiration, participating in group activities with women, networking.

Political Empowerment of Women

Political empowerment of women is the ability to participate in political interest and decision-making by own. Political empowerment also includes having own voice of political ideology, contribution, and participation in policymaking, key forms and features of Political Empowerment are having a voice and being listened to participating in policymaking, taking action to change the life of their community, networking and lobbying, changing stereotypes about women.

Psychological Empowerment of Women

Psychological Empowerment of women has been operationalized as an individual’s cognitive state characterized by a sense of perceived control, competence, and goal internalization. Psychological Empowerment is thus considered as a multi-faceted notion reflecting the various dimensions of being psychologically enabled and is considered as a positive integration of perceptions of personal control. This also signified as a proactive approach to life and a critical understanding of the socio-political environment. The psychological empowerment of women is rooted firmly during a social action framework that includes community change, capacity building, and collectivity.

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 psychological deliverance of women, the traditionally underprivileged segment in the society.

RESEARCH FINDINGS AND ANALYSIS

Bangladesh is a country ahead of its time in terms of mobile access and uses compare to most of the countries of the world. Even mobile penetration rates are comparatively high compare to developing countries. In rural areas of Bangladesh also the mobile penetration rates is very remarkable. This section is about the findings of the research work. The result of the survey, analysis of the survey, summary of cumulative women empowerment and findings of the study have been summarized, explored and analyzed in the section.

FINDINGS

The total number of Mobile Phone subscriptions has reached 133.72 million at the end of December 2015 as declared by BTRC (Bangladesh Telecommunication Regulatory Commission) and operators in Bangladesh. The number of unique mobile users is 67.1 million as per GSMA intelligence whereas countrywide mobile penetration is 78% now. According to “Digital Dividend 2016” from the world development report of World Bank and GSMA, female mobile subscription in Bangladesh is 28% which is 37.44 million and the unique user is 18.79 million.

Table 2: Mobile User in Bangladesh December 31, 2015

User	Subscriber(million)*	Ratio**	Penetration	Unique user (million)***
Male User	96.28	72%	78%	48.31
Female User	37.44	28%		18.79
Total	133.72*			67.1

Source:** BTRC (The above total mobile subscriber number are declared by the mobile operators of Bangladesh based on 90 days active user), Website: <http://www.btrc.gov.bd> * Source:** % of Female mobile subscriber is according to the report “Digital Dividend 2016” from world development report of World Bank and GSMA. “Daily Prothom-alo”, Date: 08.03.2016, Page: 13. ***** Source:** Mobile Economy Asia Pacific Report 2015, GSM Intelligence and compiled by the researcher.

The stated below Table: 3 “District wise: Mobile User Dispersion Percentage in Bangladesh” illustrates the district-wise percentage of mobile user dispersion in Bangladesh. The district-wise distribution is made based on total active mobile

users all over the country. Table:4 and 5 demonstrate the Division and District wise land and population vs. mobile user in Bangladesh.

Table 3 : 'District wise: Mobile User Dispersion Percentage in Bangladesh'

SL	District	% of Mobile User Dispersion **	Connection (in thousand)*
1	Dhaka	24.82%	33403
2	Chittagong	7.90%	10637
3	Gazipur	6.51%	8760
4	Narayanganj	4.31%	5806
5	Comilla	3.90%	5254
6	Mymensingh	3.48%	4687
7	Tangail	2.87%	3867
8	Sylhet	2.55%	3438
9	Khulna	2.05%	2758
10	Noakhali	1.90%	2556
11	Brahmanbaria	1.83%	2460
12	Barisal	1.69%	2280
13	Chandpur	1.69%	2279
14	Bogra	1.66%	2240
15	Narsingdi	1.66%	2231
16	Kishoreganj	1.66%	2229
17	Jessore	1.57%	2120
18	Manikganj	1.35%	1823
19	Rajshahi	1.30%	1749
20	Faridpur	1.23%	1653
21	Sirajganj	1.20%	1622
22	Moulvibazar	1.10%	1481
23	Cox's Bazar	1.05%	1416
24	Jamalpur	1.02%	1378
25	Munshiganj	1.01%	1366
26	Lakshmipur	1.01%	1365
27	Rangpur	1.00%	1346
28	Bagerhat	0.99%	1331
29	Feni	0.99%	1326
30	Habiganj	0.95%	1273
31	Sunamganj	0.92%	1233
32	Netrakona	0.85%	1146
33	Gopalganj	0.82%	1105
34	Patuakhali	0.81%	1085
SL	District	% of Mobile User Dispersion	Connection (in thousand)
36	Pabna	0.77%	1041
37	Kushtia	0.75%	1016
38	Madaripur	0.72%	964
39	Natore	0.68%	921
40	Jhenaidah	0.57%	761
41	Sherpur	0.55%	735
42	Rajbari	0.49%	659
43	Pirojpur	0.45%	603
44	Dinajpur	0.42%	567
45	Magura	0.42%	560
46	Gaibandha	0.41%	548
47	Jhalokati	0.40%	540
48	Shariatpur	0.39%	528
49	Narail	0.37%	502
50	Satkhira	0.33%	442

51	Barguna	0.30%	401
52	Nawabganj	0.25%	335
53	Nilphamari	0.22%	301
54	Naogaon	0.17%	230
55	Rangamati	0.15%	204
56	Thakurgaon	0.13%	176
57	Khagrachhari	0.10%	132
58	Lalmonirhat	0.09%	121
59	Kurigram	0.08%	112
60	Joypurhat	0.08%	107
61	Chuadanga	0.08%	106
62	Panchagarh	0.07%	94
63	Meherpur	0.06%	77
64	Bandarban	0.05%	68

Source: * Compiled by the researcher from mobile operators of Bangladesh based on district wise active subscribers in BTS (Base Transceiver Station), (extrapolate) ** Dispersed based on GSMA Intelligence, Dated January 10, 2016.

Table 4: Division wise land-population vs. mobile user in Bangladesh

SL	Division	Subdivision			Area (km2)*	Population*	Mobile Connection (in thousand)**
		District	Upazila	Union Parishad			
1	Barisal	6	39	333	13,225.20	8,325,666	5957
2	Chittagong	11	97	336	33,908.55	28,423,019	27698
3	Dhaka	13	93	1,833	20,593.74	36,054,418	64393
4	Khulna	10	59	270	22,284.22	15,687,759	9673
5	Mymensingh	4	34	350	10,584.06	11,370,000	7945
6	Rajshahi	8	70	558	18,153.08	18,484,858	8244
7	Rangpur	8	58	536	16,184.99	15,787,758	3265
8	Sylhet	4	38	334	12,635.22	9,910,219	7425
	Totals	64	488	4,550	147,570.00	149,772,364	134600

Source: 2011 Population & Housing Census: Preliminary Results. Bangladesh Bureau of Statistics. Retrieved 12 January 2012. * Based on GSMA Intelligence, Dated January 10, 2016 & Compiled by researcher

Table 5: District wise land-population vs. mobile user in Bangladesh

Serial	District	Bengali	Division	Population (in thousand)*	Area (km2)*	Mobile Connection (in thousand)**
1	Barguna	বরগুনা	Barisal	928	1831	401
2	Barisal	বরিশাল	Barisal	2415	2785	2280
3	Bhola	ভোলা	Barisal	1846	3403	1048
4	Jhalokati	ঝালকাঠি	Barisal	810	749	540
5	Patuakhali	পটুয়াখালী	Barisal	1596	3221	1085
6	Pirojpur	পিরোজপুর	Barisal	1277	1308	603
7	Bandarban	বান্দরবান	Chittagong	405	4479	68
8	Brahmanbaria	ব্রাহ্মণবাড়ীয়া	Chittagong	2954	1927	2460
9	Chandpur	চাঁদপুর	Chittagong	2814	1704	2279
10	Chittagong	চট্টগ্রাম	Chittagong	7913	5283	10637
11	Comilla	কুমিল্লা	Chittagong	5603	3085	5254
12	Cox's Bazar	কক্সবাজার	Chittagong	2982	2492	1416
13	Feni	ফেনী	Chittagong	1496	928	1326
14	Khagrachhari	খাগড়াছড়ি	Chittagong	639	2700	132
15	Lakshmipur	লক্ষ্মীপুর	Chittagong	1798	1456	1365
16	Noakhali	নোয়াখালী	Chittagong	3632	4202	2556
17	Rangamati	রাঙ্গামাটি	Chittagong	620	6116	204

18	Dhaka	ঢাকা	Dhaka	13518	1464	33403
19	Faridpur	ফরিদপুর	Dhaka	1989	2073	1653
21	Gopalganj	গোপালগঞ্জ	Dhaka	1218	1490	1105
23	Madaripur	মাদারীপুর	Dhaka	1214	1145	964
24	Manikganj	মানিকগঞ্জ	Dhaka	1447	1379	1823
25	Munshiganj	মুন্সীগঞ্জ	Dhaka	1506	955	1366
26	Narayanganj	নারায়ণগঞ্জ	Dhaka	3074	759	5806
27	Narsingdi	নরসিংদী	Dhaka	2315	1141	2231
28	Rajbari	রাজবাড়ী	Dhaka	1091	1119	659
29	Shariatpur	শরীয়তপুর	Dhaka	1202	1182	528
30	Tangail	টাঙ্গাইল	Dhaka	3750	3414	3867
31	Bagerhat	বাগেরহাট	Khulna	1461	3959	1331
32	Chuadanga	চুয়াডাঙ্গা	Khulna	1123	1177	106
33	Jessore	যশোর	Khulna	2742	2567	2120
34	Jhenaidah	ঝিনাইদহ	Khulna	1756	1961	761
35	Khulna	খুলনা	Khulna	2294	4394	2758
36	Kushtia	কুষ্টিয়া	Khulna	1933	1601	1016
37	Magura	মাগুরা	Khulna	913	1049	560
38	Meherpur	মেহেরপুর	Khulna	652	509	77
39	Narail	নড়াইল	Khulna	715	990	502
40	Satkhira	সাতক্ষিরা	Khulna	1973	3858	442
41	Jamalpur	জামালপুর	Mymensingh	2265	2032	1378
42	Mymensingh	ময়মনসিংহ	Mymensingh	5042	4363	4687
43	Netrakona	নেত্রকোনা	Mymensingh	2207	2810	1146
Serial	District	Bengali	Division	Population (in thousand)*	Area (km2)*	Mobile Connection (in thousand)**
44	Sherpur	শেরপুর	Mymensingh	1334	1364	735
45	Bogra	বগুড়া	Rajshahi	3376	2920	2240
46	Joypurhat	জয়পুরহাট	Rajshahi	909	965	107
47	Naogaon	নওগাঁ	Rajshahi	2576	3436	230
48	Natore	নাটোর	Rajshahi	1696	1896	921
49	Chapainawabganj	নওয়াবগঞ্জ	Rajshahi	1635	1703	335
50	Pabna	পাবনা	Rajshahi	2497	2372	1041
51	Rajshahi	রাজশাহী	Rajshahi	2573	2407	1749
52	Sirajganj	সিরাজগঞ্জ	Rajshahi	3079	2498	1622
53	Dinajpur	দিনাজপুর	Rangpur	2980	3438	567
54	Gaibandha	গাইবান্ধা	Rangpur	2349	2179	548
55	Kurigram	কুড়িগ্রাম	Rangpur	2359	2296	112
56	Lalmonirhat	লালমনিরহাট	Rangpur	1549	1241	121
57	Nilphamari	নীলফামারী	Rangpur	1820	1580	301
58	Panchagarh	পঞ্চগড়	Rangpur	981	1405	94
59	Rangpur	রংপুর	Rangpur	2966	2368	1346
60	Thakurgaon	ঠাকুরগাঁও	Rangpur	1380	1810	176
62	Moulvibazar	মৌলভীবাজার	Sylhet	1907	2799	1481
63	Sunamganj	সুনামগঞ্জ	Sylhet	2643	3670	1233
64	Sylhet	সিলেট	Sylhet	3404	3490	3438

Source: * '2011 Population & Housing Census: Preliminary Results', Bangladesh Bureau of Statistics. Retrieved 12 January 2012. ** Dispersed based on GSMA Intelligence, Dated January 10, 2016.

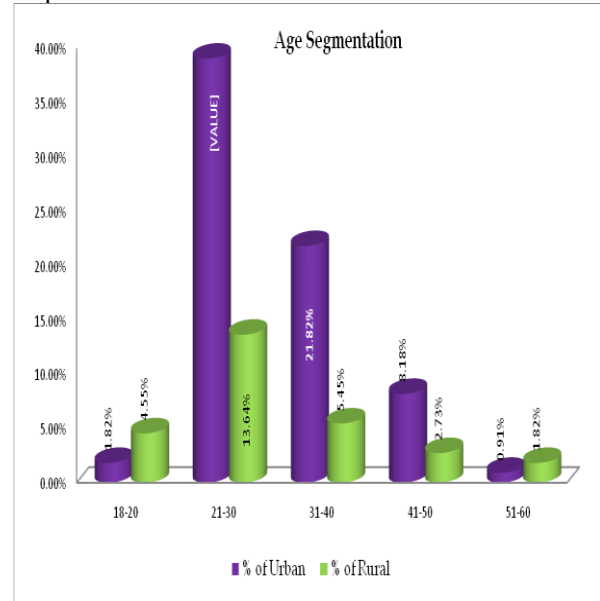
2.2 Empirical Findings

Profile of Respondents: Below table and graph shows the age and area wise segmentation of the respondents

Table 6: Age and area wise segmentation of respondents:

Age	Urban	Rural	% of Urban	% of Rural
18-20	4	11	1.82%	4.55%
21-30	94	33	39.09%	13.64%
31-40	52	13	21.82%	5.45%
41-50	20	7	8.18%	2.73%
51-60	2	4	0.91%	1.82%
Total	172	68	71.82%	28.18%
Grand Total	240	100%		

Table7: Age vs. marital status of respondents
Chart 1: Age and area wise segmentation ratio of respondents

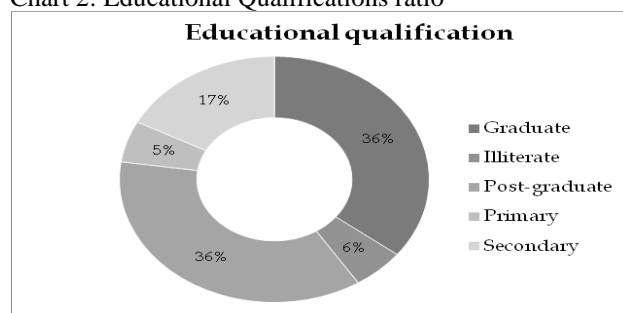


Age	Marital Status				% of Marital Status			
	Single	Married	Divorced	Widowed	Single	Married	Divorced	Widowed
18-20	11	4	0	0	5%	2%	0%	0%
21-30	59	65	2	0	25%	26%	1%	0%
31-40	7	50	9	0	3%	21%	4%	0%
41-50	4	17	0	4	2%	7%	0%	2%
51-60	0	2	0	5	0%	1%	0%	2%
Total	81	140	11	9	34%	57%	5%	4%
G. Total	240				100%			

Table 8: Educational Qualification of respondents

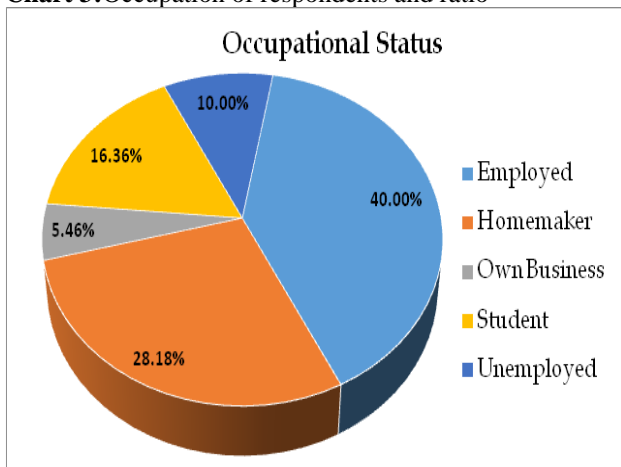
Matric	Number	Percentage
Graduate	85	35%
Illiterate	13	6%
Post-graduate	87	36%
Primary	13	6%
Secondary	41	17%
Total	240	100%

Chart 2: Educational Qualifications ratio



Amongst respondents the educational qualification is diverse i.e. 6% of the respondents complete only primary level and 17% secondary level of education. Whereas 35% and 36% is in graduate level and post graduate level respectively. Only 6% of the respondents are illiterate.

Chart 3:Occupation of respondents and ratio



It is comprehended from the above chart that 40% for the respondents are employed and 28.18% are homemaker. Rest are student and have own business. Only 10% of the respondents are unemployed.

Table 9: Occupation of respondents

Matric	Number	Percentage (%)
Employed	96	40.00%
Homemaker	68	28.18%
Own Business	13	5.46%
Student	39	16.36%
Unemployed	24	10.00%
Total	240	100%

Result analysis of the questionnaire: The result

analysis of the questions are given below:

Question No: 5	Are you involved in decision making with your family?					
Mobile User:	Yes					
Location	Yes	% Yes	No	% of No	Sometimes	% Sometimes
Urban	102	51%	8	4%	40	20%
Rural	34	17%	2	1%	14	7%
Total	136	68%	10	5%	54	27%

Mobile User:	No					
Location	Yes	% Yes	No	% No	Sometimes	%Sometimes
Urban	4	10%	4	10%	6	20%
Rural	8	20%	8	20%	8	20%
Total	12	30%	12	30%	16	40%

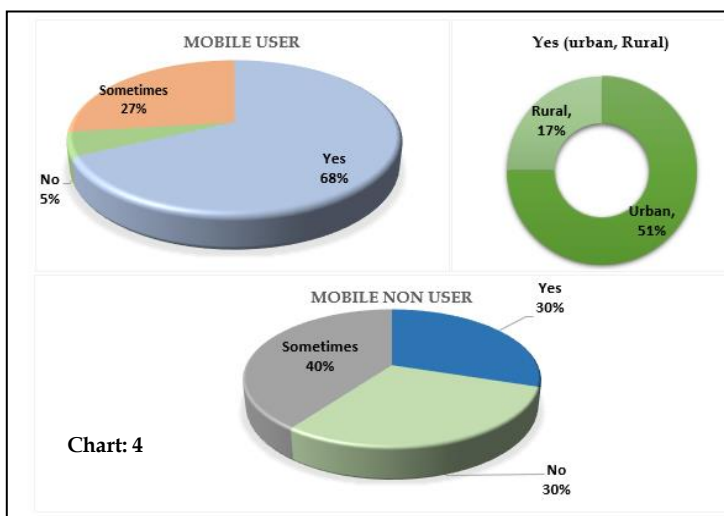


Chart 4: It is seen from the above chart that, 68% of the respondents' women mobile users are involved in decision making with their family along 27% are sometimes. But for mobile nonusers, it's only 30% who involve in decision-making in the family.

Question No: 6	Do you get freedom in decision making in your family?					
Mobile User:	Yes					
Location	Yes	% Yes	No	% No	Sometimes	% Sometimes
Urban	94	47%	6	3%	50	25%
Rural	24	12%	2	1%	24	12%
Total	118	59%	8	4%	74	37%

Mobile User:	No					
Location	Yes	% Yes	No	% No	Sometimes	% Sometimes
Urban	0	0%	12	30%	4	10%
Rural	8	20%	12	30%	4	10%
Total	8	20%	24	60%	8	20%

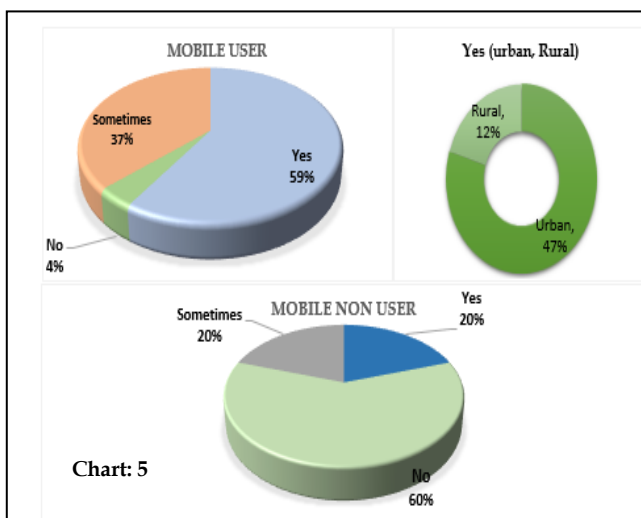


Chart 5: The Above chart comprehends that among mobile users 59% are getting full freedom in their decision making and 37% partially in their family. Whereas opposite picture for mobile non-users according to the survey. Exactly 60% of the respondents express that they don't have any freedom in decision-making.

The rest of the questions were:

Question No 7:	Do you believe that mobile phone help you (or would help you – if not mobile phone user) to stay in touch with family, relatives and friends?
Question No 8:	Do you feel safer (or would feel safer - if not mobile phone users) when you have a mobile phone so that you are connected?
Question No : 9	Do you agree - Telecommunication can be a powerful catalyst for the social empowerment of women and the promotion of gender equality?
Question No : 10	Do you think mobile telephony has changed a lot for social protest for women?
Question No : 11	Do you consider mobile phones have potential opportunities for women’s social empowerment?
Question No : 12	Did you vote for any elections?
Question No : 13	Have you received any political awareness or elections-related information through your mobile phone?
Question No : 14	Do you agree that with the help of mobile telecommunication, women in Bangladesh are now more politically empowered
Question No : 15	Do your think that your mobile phone has a significant role in improved political & indigenous knowledge?
Question No : 16	Does Mobile telecommunication assist women’s political decision-making?
Question No : 17	The government and many other organizations along with mobile operators have launched legal aid and different support service (i.e. Helpline: 10921: National helpline Centre for violence against women and children hotline: 24-hour helpline: 10921, Helpline: 16256, 1098,

	etc.) to ensure justice and other support for women through mobile. Are these helpful for you?
Question No : 18	Women, who work outside and use the mobile phone, can be in touch with family which gives them psychological relief?
Question No : 19	Can women build self-confidence, self-efficacy, and self-belief with the help of telecommunication?
Question No : 20	Do you believe mobile telephony has increased access, ease of use, and coverage among which made them psychologically empowered?
Question No : 21	Do you agree that the uses of mobile phone have made everyone’s life easier?
Question No : 22	Has mobile telecommunication provided women the opportunity to work from home and earn?
Question No : 23	Can your mobile phone deliver potentially useful information, such as market prices for your agricultural or other products, business, and microenterprises that are financially beneficial for you?
Question No : 24	Do you consider that mobile telecommunication has potential opportunities for women’s economic empowerment?
Question No : 25	Telecommunication has enabled women to be independent in matters concerning means of the lively hood through engagement in self-employment and paid employment- Do you agree?
Question No : 26	Do your think that your mobile phone has a significant role in the increase of average household income?
Question No : 27	Is mobile telecommunication ensuring access for women's economic activities, such as small businesses, home-based businesses, and employment?

Question No : 28	Do you believe that uses of mobile phone have ensured your empowerment?
Mobile User:	Yes

Location	Yes	% Yes	No	% No	Don't Know	% Don't Know
Urban	120	60%	18	9%	12	6%
Rural	40	20%	4	2%	6	3%
Total	160	80%	22	11%	18	9%

Mobile User:	No
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Location	Yes	% of Yes	No	% of No	Don't Know	% of Don't Know
Urban	0	0%	0	0%	16	40%
Rural	4	10%	4	10%	16	40%
Total	4	10%	4	10%	32	80%

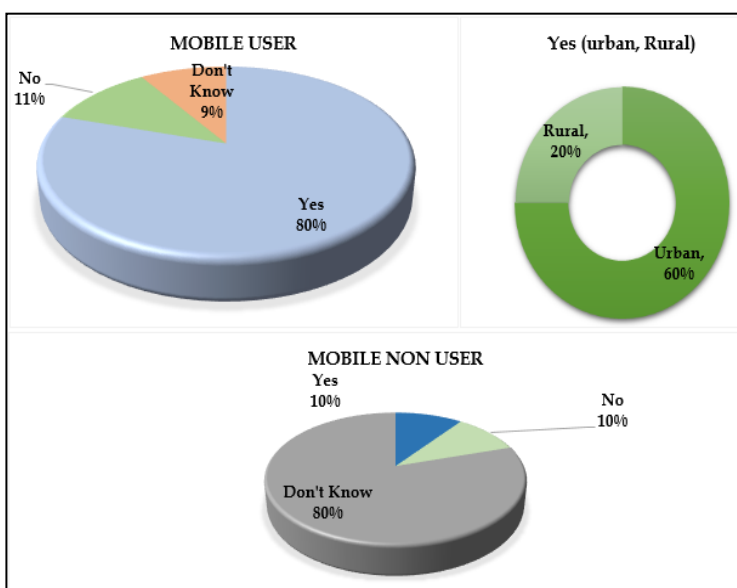


Chart 2.7: In responses to the question, 80% of the survey participants fully believe that uses of mobile phone ensure their empowerment, 11% of respondents say ‘No’ and 9% say they don’t know whether uses of mobile phone ensure their empowerment or not. Of the respondents, 20% are rural and 60% are urban. Among mobile nonusers, 10% believe that uses of mobile phone ensure their empowerment, 10% say ‘No’ and 80% say they don’t know about it or understand about its’ impact.

Result Analysis of the Survey: Cumulative Empowerment Index and Interpretation of Survey
 Result analysis of the survey along with “Cumulative Empowerment Index” and interpretation of survey given below:

Table 10: Cumulative Empowerment Index-Mobile User

Mobile User				
Metric	Respond	Yes/Agree %	No/Disagree %	Sometimes/Don't know %
Social Empowerment	Answer: 05	68%	5%	27%
	Answer: 06	59%	4%	37%
	Answer: 07	98%	2%	0%
	Answer: 08	94%	4%	2%
	Answer: 09	68%	14%	18%
	Answer: 10	73%	18%	9%
	Answer: 11	78%	8%	14%
Political Empowerment	Answer: 12	70%	30%	0%
	Answer: 13	77%	15%	8%
	Answer: 14	51%	25%	24%
	Answer: 15	54%	21%	25%
Psychological Empowerment	Answer: 16	55%	31%	14%
	Answer: 17	83%	14%	3%
	Answer: 18	98%	1%	1%
	Answer: 19	84%	6%	10%
Economic Empowerment	Answer: 20	82%	10%	8%
	Answer: 21	92%	7%	1%
	Answer: 22	83%	11%	6%
	Answer: 23	82%	8%	10%
	Answer: 24	78%	11%	11%
	Answer: 25	70%	14%	16%
	Answer: 26	55%	35%	10%
Empowerment (%)	Answer: 27	72%	12%	16%
	Answer: 28	80%	11%	9%

Table 11: Cumulative Empowerment Index-Mobile Non-User

Mobile Non-user				
Metric	Respond	Yes/Agree %	No/Disagree %	Don't know %
Social Empowerment	Answer: 05	30%	30%	40%
	Answer: 06	20%	60%	20%
	Answer: 07	50%	0%	50%
	Answer: 08	40%	0%	60%
	Answer: 09	10%	0%	90%
	Answer: 10	10%	0%	90%
	Answer: 11	10%	0%	90%
Political Empowerment	Answer: 12	70%	30%	0%
	Answer: 13	0%	30%	70%
	Answer: 14	10%	30%	60%
	Answer: 15	10%	20%	70%
	Answer: 16	20%	0%	80%
Psychological Empowerment	Answer: 17	40%	10%	50%
	Answer: 18	45%	11%	44%
	Answer: 19	10%	0%	90%
	Answer: 20	10%	10%	80%
Economic Empowerment	Answer: 21	10%	90%	0%
	Answer: 22	10%	10%	80%
	Answer: 23	20%	20%	60%
	Answer: 24	10%	0%	90%
	Answer: 25	10%	0%	90%
	Answer: 26	0%	0%	100%
	Answer: 27	10%	0%	90%
Empowerment (%)	Answer: 28	10%	10%	80%

Table 12: Summary of Cumulative Empowerment Index-Mobile User

Mobile User			
	Positive	Negative	Don't know
Overall Empowerment	75%	13%	12%
Social Empowerment	77%	8%	15%
Political Empowerment	61%	24%	14%
Psychological Empowerment	87%	8%	6%
Economic Empowerment	76%	14%	10%
Perception on Empowerment	80%	11%	9%

Table13: Summary of Cumulative Empowerment Index-Mobile Non-User

Mobile Nonuser			
	Average - Yes/Agree	Average- No/Disagree	Avg.-Don't know
Social Empowerment	24%	13%	63%
Political Empowerment	22%	22%	56%
Psychological Empowerment	26%	8%	66%
Economic Empowerment	10%	17%	73%
Perception on Empowerment	10%	10%	80%
	Positive	Negative	Don't know
Overall Empowerment	18%	14%	68%

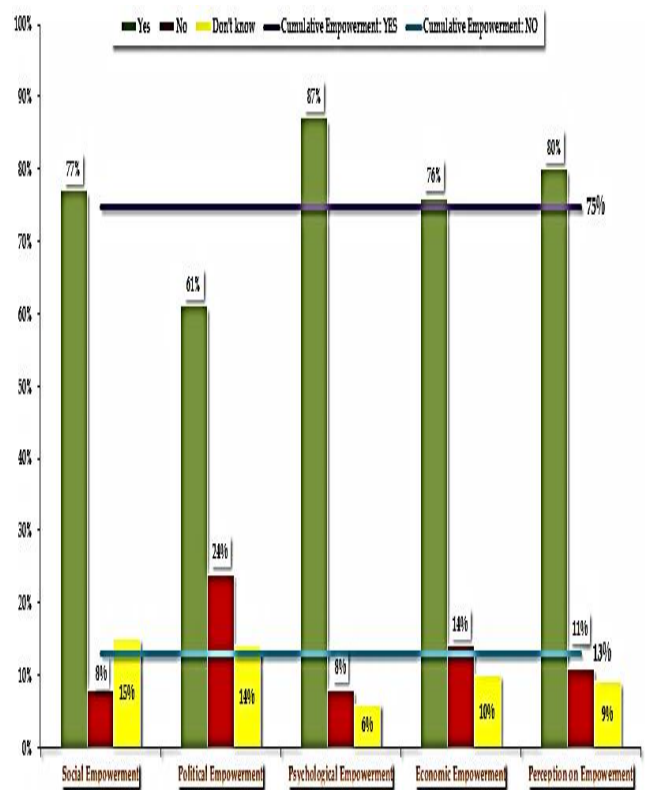
Table: 10 exhibits the collective answers of the respondents who are using mobile phones. And Table: 11 illustrates the same for mobile non-users. Table: 12 elucidates the cumulative summary of four key indicators of empowerment of mobile users. The indicators are social, political, psychological, and economic empowerment of women and a general view on empowerment between the respondents. Table: 13 shows the same for mobile non-user respondents.

The distribution of empowerment indicators shows that 77% of the women believe that they are socially empowered, 61% agree that they are politically empowered, 87% of them trust they are psychologically empowered and 76% of women believe that they are economically empowered due to use of mobile phone and its services. Lastly, when the respondents are asked about whether the uses of mobile phones ensure their empowerment or not, 80% of women agree that the uses of mobile phones have ensured their empowerment. Finally, the

analysis of empowerment indicators cumulatively demonstrates that 75% of women among mobile users effusively believe that uses of mobile phones have empowered them.

Table: 13 shows the cumulative empowerment index of mobile non-user. Among women who are not using a mobile phone, 18% believe that uses of mobile phone or telecommunication may empower themselves. Of the rest respondents, 14% disagree and 68% don't know about their empowerment by using mobile phones or telecommunication.

Chart 2.8: Women Empowerment Analysis for mobile users

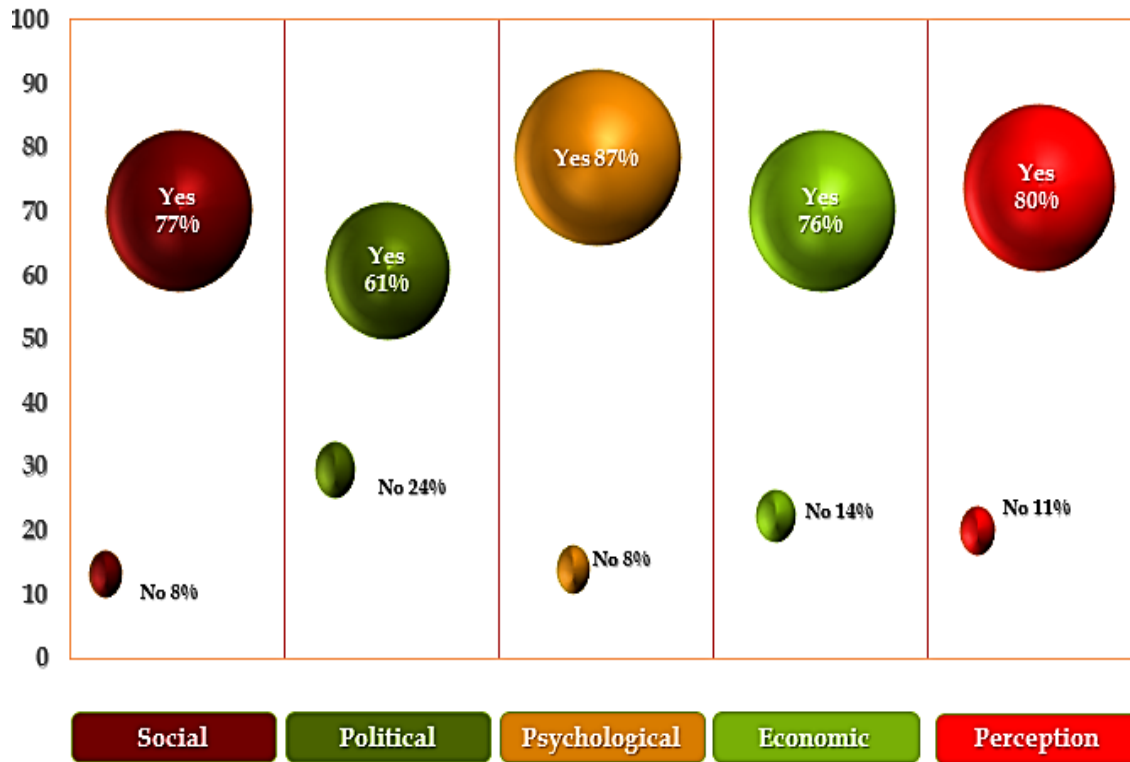


FINDINGS OF THE STUDY

Mobility is a very important factor for women's empowerment. This includes social, political, psychological, and economic empowerment of women which is enabled by the uses of mobile phones. In Bangladesh, particularly in rural areas women are not permitted to interact with society and have very limited access to involvement with development. The mobile phone revealed the opportunities and freedom for women to make their own choices, improve their social network, change their attitudes and change their life.

Chart 2.9: Women Empowerment Analysis

Findings of the study and survey that researcher experienced and explored are summarized below:



Social Empowerment of Women

From the data analysis, it is revealed that 77 percent of women are socially empowered for using mobile phones because:

- Women who are using mobile phones feel safer since they are connected. Mobile phones support them stay in touch with friends and family;
- The mobile phone gives access to new and useful knowledge, information, and awareness which provide mental stimulation to women.
- The uses of mobile phones provide technological empowerment which brings greater confidence and competence for women.
- In Bangladesh, women feel more independent because of their mobile phones.
- Mobile phone ownership delivers distinct benefits to women of Bangladesh, which includes improved access to educational, health, and employment opportunities.
- Mobile phone helps women to lead a more secure, connected and productive life.
- Female students who are using mobile express that mobile phones give them easy access to mobile internet and better access to educational opportunities through the online school, Community Information Centers, and mobile-based IVR.

- Uses of mobile phone have a multiplier effect for individual woman for raising their standard of living for their own as well as family.
- Mobile communication now becomes leverage alternative financing mechanisms and channels for all including women.
- The mobile phone is an effective development tool which creates education, health, employment, banking and business opportunities for women which upsurge their living standard.
- By using mobile technologies women are getting help and support from different channels like “Mobile Health Helpline”, “m-Health hotline”, “Telemedicine Service”, “Pregnancy Care Advice for Women through SMS”, “Health Care Call Centre”, “Safe Motherhood and Infant Care” which are dedicated for them intended for their support. With these support better health for mothers and their family have been ensured. Moreover, these services decrease the death rate of women during childbirth.
- Online school, education-related hotline, and IVR increase the literacy rate between women and children.
- Access to information help mother to create awareness which decreases child mortality rate significantly.

Political Empowerment of Women

Data analysis revealed that 61% of women expressed mobile phones provided them political empowerment because:

- Mobile phones ensure having a voice for their rights.
- Enhance their decision-making capacity.
- Uses of mobile phones ensure interaction, networking, and meeting with others in groups and society for women. These also enable women to discuss issues affecting them and way to overcome.
- By using mobile phones women are doing their advocacy and more women can ask for the right to information now. The hurdles and scare about technology in the villages and rural areas have been broken down after using mobile technologies. The same also happened for urban women users. They know mobile technology is for their well-being and better life.
- Access to and the use of mobile technologies opens the possibility of new communication channels and gives a 'voice' to women who previously had none. M-governance initiatives through mobile phones provide greater inclusion and fostering broader participation. M-governance can thus provide women with critical tools to better engage with public institutions.
- Mobiles are allowing women to be engaged in political and socio-economic decision-making processes, offering new avenues for achieving key governance goals related to elections, civic engagement, and access to information.
- The mobile platform enables and includes women for election-related information, communication, NID, and Smart Card information. Only a basic mobile phone with SMS capacity has allowed and aware them for this participation.
- Mobile phones have become an important tool for civil society organizations, advocacy groups, and individual activists for women of Bangladesh. This is not only fostering local mobilization but also for the national issue of the country.
- Civic campaigning and mobilization are being enhanced by mobile platforms that allow organizations to reach large numbers of women with new information with a simple SMS subscription which creates political awareness to women.
- Mobile phones permit the chance for women to monitor their governments, law enforcement agencies, and corporations with new mobile applications, and the misuse of funds, corruption, brutality, and crimes that would be harder to conceal. Now, women

with a mobile phone and internet can potentially be a watchdog. This kind of accountability helps improve democratic governance, service delivery, and participation for women.

- Local governments are also turning to mobile innovations to streamline and improve their services which help a lot for local women empowerment.

Psychological Empowerment of Women

From data exploration, it is exposed that 87% of women are psychologically empowered for using mobile phones because:

- By using a mobile phone, women feel more autonomous and independent.
- Mobile phones increase self-confidence and self-esteem among women. By using a mobile phone and its services they feel more valued, respected.
- Mobile phones create opportunities for motivation, inspiration, enthusiasm, and interest to develop new skills and knowledge.
- Awareness and online education through mobile make women sound about the contemporary world. Which makes women psychologically empowered.
- Availability of mobile technology in remote, rural and urban areas of Bangladesh intended access to information for women. This unfastened communication with the outside world through mobile simply opened up a world of opportunities for women which make them psychologically empowered.
- Raising awareness of women to use mobile technology and the internet along with basic computer literacy through CIC or other ways would give intensification to further economic development in the country. This contribution empowered them psychologically.
- Mobile phone relevant business i.e. Village Phone, PCO, Mobile top-up, airtime sell, Mobile Banking, Community in Center, etc. empowered rural women of Bangladesh and change their life. This change and empowerment of these ladies are a true inspiration for many other women in different villages.
- Legal aid helpline, National Helpline Centre for Violence against Women and Children along with other mobile-based helpline and mobile applications make women psychologically empowered.

Economic Empowerment of Women

It is revealed from data analysis that 76% of women are economically empowered for using mobile phones because:

- Mobile technology is opening doors to endless information and direct access to business for both urban and rural women.
- Uses of mobile phones save their time. This is very helpful for their business.
- Mobile phones have become a life-enhancing and income-generating tool.
- Women who are using mobile said mobile phone ownership saves them money.
- Women of Bangladesh are using the power of mobile phones to unlock economic opportunities and increase their monthly income.
- Here in Bangladesh, the women business owners, in particular, perceive the mobile phone as an essential productivity tool. They are using a mobile phone to earn additional income.
- Women mobile users claimed that a mobile phone helps make running shops and business both more convenient and less expensive way.
- Most of the working women say that because of mobile, they have greater access to business and employment opportunities.
- Mobile phone relevant business i.e. Village Phone, PCO, Mobile top-up, airtime sell, Mobile Banking, Community in Center, etc. empowered rural women of Bangladesh.
- Community Capacity building and enhancement opening doors to endless information, opportunities, and direct access to business for women help a lot for empowerment through mobile technologies.
- Mobile phones enable women to reach markets far from their own area and sell their goods, products providing greater access to regional, national and global markets which is beneficial for them.
- Women acquire economic empowerment by using mobile technologies. This helps to increase the per capita income of Bangladesh.
- Mobile phones ensure access to information for women and unfastened communication with the outside world. This ease of communication for women with their family members is leading to higher foreign remittance in the country through labor force remittance which is one of the highest sources of income generation for Bangladesh.
- Access to information allows women producers to sell their products in the most profitable markets and determine the optimum timing of the sale. Moreover, the availability of price information shrinks the informational unevenness between the rural women producers and middlemen; Thus Mobile phones reduce the

exploitation of rural producers by middlemen and ensure the right price of products.

Finally, the study exhibited that women are enormously benefited by the use of Mobile phones. Mobile technology has made a tremendous impact on their lifestyle. The study determines that the uses of mobile phones have empowered women and ensured women's empowerment in Bangladesh. This study concludes that telecommunication technology particularly mobile phones empowered women of Bangladesh individually and collectively in each indicator of empowerment which includes social, political, psychological, and economic empowerment.

CONCLUSION

Women are about half of the Bangladesh population though, their social eminence and condition both in urban and rural areas remain very low. The lives of women in Bangladesh have engrossed around their traditional roles. Their access to information, markets, education, and health care were abandoned by social norms and stigma. During the period 1980s, 82% of the women lived in rural areas whereas only 10% of the women were involved in professional services. Today, Bangladesh stands globally as an example for women empowerment and leadership.

The contribution of women is clearly evident in every sphere of society and it is perpetually increasing due to their empowerment. Their active participation in every sector of society has made a great impact on national development. Here mobile phone is playing a key role in women's empowerment.

The mobile phone has changed the communication paradigm. Mobile phone lies at the heartland of emerging information society and knowledge-based economy, developing new products, systems, and services with important economic and social implications.

Utilizing mobile technology becomes a powerful catalyst to advance women's status and their quality of life. Moreover, mobile technology will promote and facilitate women, their required economic, political, social, cultural, psychological empowerment, and gender equality.

In Bangladesh, women's engrossment in mobile telecommunication technology changes the behavioral aspect of women's lifestyle and thereby affects the society and economy as a whole. The mobile telecommunication sector 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 their quality of life.

Mobile communications technologies have been established to be one of the most powerful tools for women's empowerment. Women have used mobile phones to organize themselves, advocate change, and participate in civic and community affairs. Mobile phones also support women's network building outside their immediate families and their participation in many social and public affairs.

Women of Bangladesh believe their income and professional opportunities, economic opportunities, entrepreneurship, and financial inclusion have increased with the use of the mobile phone. Moreover, most women business owners worldwide recognize mobile phone use as a way to increase productivity. Besides, mobile banking helps women become economic performers in the financial system and can lead to greater financial independence and economic empowerment both for individuals and families.

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 perceive mobile phones as a tool for improving safety and peace of mind. Women feel safer with a mobile phone in both urban and rural areas and communities. Women with a mobile phone feel more connected and can access any emergency numbers and contacts whenever required which makes them more psychologically empowered.

The main objective of this research is to identify the role of mobile phones in empowering women of Bangladesh. The study evidently unveiled that in Bangladesh women are enormously benefited by the use of Mobile phones. Mobile technology has an incredible impact on their life. Finally, it must be said that mobile phones empowered women of Bangladesh individually and collectively.

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