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Mobile Phone's Role in Empowering Women in Communities: A Case Study of Bangladesh

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ABSTRACT

This study aims to investigate the roles and impacts of mobile phones in empowering women within communities in Bangladesh. Employing a mixed-methods approach, it delves into how mobile phones contribute to women's empowerment across political engagement, economic participation, and social connectivity in the country. The study utilized a semi-structured questionnaire to interview purposively selected 110 women aged 18 and above, all mobile phone users residing in Dhaka and Satkhira districts of Bangladesh. The quantitative analyses underscore the significant contributions of mobile phones to political, social, and economic empowerment. Political empowerment is evidenced by increased access to voting information, heightened election participation, and policy change advocacy. Social empowerment is reflected in strengthened interpersonal connections, heightened awareness of women's rights, and active engagement in online discussions. Economically, mobile phones play a crucial role in facilitating e-commerce, enhancing job accessibility, fostering skill development, and supporting entrepreneurial endeavors. The qualitative insights from respondent narratives complement the quantitative findings, offering depth and context to the research outcomes. While acknowledging certain limitations, the study emphasizes the transformative potential of mobile phones in advancing women's empowerment in Bangladesh. It calls for sustained efforts to bridge the digital gender gap and maximize the benefits of mobile technology for women across the country.

Keywords: Mobile phone, Women empowerment, Public policy, Bangladesh

INTRODUCTION

Telecommunication, particularly mobile phones, has emerged as a catalyst for empowering women in Bangladesh, offering opportunities for autonomy, social connectivity, and transformative change (Pei and Chib 2021; Rahman, 2021). In the socio-political landscape of Bangladesh, the imperative to empower women is deeply recognized, given their pivotal role in driving progress across social, economic, and political spheres (Hossain, 2012). With women constituting nearly half of the country's population, their equal participation is fundamental for sustainable development, as enshrined in Article 28 of the Constitution, affirming equal rights for women in all aspects of public life. Against this backdrop, mobile phones have assumed a pivotal role, as evidenced by staggering statistics provided by the Bangladesh Telecommunication Regulatory Commission, indicating a total of 188.64 million mobile phone subscribers as of August 2023, with a significant portion accessing the internet. Mobile phones now serve not only as communication devices (Islam and Slack, 2016) but also as platforms for mobile banking, agricultural information dissemination, healthcare advice, and entrepreneurship.

According to the Population and Housing Census 2022 of Bangladesh, approximately 45,899,979 individuals (aged five years and above) use the internet, with 17,816,533 being female internet users. Highlighted by the World Summit on the Information Society (WSIS) in 2003 and reinforced by scholarly literature (Sulaiman et al., 2011), mobile phones represent gateways to economic opportunities, healthcare access, and social networking, promising to reshape the lives of Bangladeshi women across diverse socio-economic strata. However, Bangladesh, like many developing countries, grapples with persistent gender disparities that limit





women's full participation and agency across various domains of life. The rapid proliferation of mobile phones has emerged as a potential catalyst (Rahman et al., 2023) for addressing these challenges and advancing women's empowerment, offering numerous possibilities to improve women's economic activities in trade, garments, education, and health employment, both formally and informally (Ramesh et al., 2014).

Against this backdrop, this study investigates and highlights the role of mobile phones in enhancing the empowerment of women in Bangladesh. Drawing upon empirical findings, the study reveals the substantial impact of mobile phones on political, social, and economic empowerment. Political empowerment is demonstrated through enhanced access to voting information, increased participation in elections, and advocacy for policy changes. Social empowerment is evidenced by strengthened interpersonal connections, heightened awareness of women's rights, and active engagement in online discussions. Economically, mobile phones play a pivotal role in facilitating e-commerce, job accessibility, skill development, and entrepreneurial pursuits. Nevertheless, the study also identifies significant barriers impeding women's full utilization of mobile phones, including security concerns, digital illiteracy, network connectivity issues, financial constraints, and cultural barriers.

Through a nuanced examination of both challenges and opportunities, this study aims to inform policy interventions and advocacy efforts geared toward fostering a more inclusive and empowered society. Specifically, the study seeks to explore the roles and impacts of telecommunication, particularly mobile phones, in empowering women in Bangladesh. Additionally, it endeavors to identify the barriers hindering women's utilization of mobile phones in the country, addressing the following questions.

Research Questions

- 1. How can mobile phones help and facilitate empowering women in communities of Bangladesh?
- 2. What are the barriers that hinder women in communities in Bangladesh from effectively using mobile phones?

LITERATURE REVIEW

Women's empowerment, a multifaceted concept encompassing economic, social, and political dimensions, has garnered significant attention in scholarly discourse (Bayissa et al. 2018). Reshi and Sudha (2022) define women's empowerment as the process of enhancing women's economic, social, and political power. Economic empowerment involves access to assets and participation in economic decision-making, social empowerment entails participation in community activities, and political empowerment relates to involvement in political processes and decision-making (Rahman et al. 2017).

In the context of Bangladesh, where women constitute nearly half of the population, their equal participation is crucial for sustainable development, as enshrined in Article 28 of the Constitution. Rahman (2021) underscores the role of mobile phones in empowering women, citing mobility as a significant factor enabling women to make autonomous choices, enhance social connections, and transform their lives. Various initiatives in Bangladesh, such as the Village Phone Program and Mobile Health Helpline, highlight the transformative potential of mobile technology in empowering women across diverse sectors.

Aminuzzaman et al. (2003) and Stanley (2005) explore the Village Phone scheme's efficacy in alleviating information poverty and empowering female operators, thus contributing to poverty reduction and improved well-being. Similarly, Ferdousi and Mahmud (2019) investigate the impact of social business on women's entrepreneurship, emphasizing the importance of multifaceted support for sustainable development. The role of telecommunications in economic development has been widely recognized, as highlighted by Sharif (2016) and previous studies (Hardy, 1980; Lichtenberg, 1995; Greenstein & Spillar, 1996; Norton, 1992). Abdul et al. (1999) examine the role of Village Pay Phones in rural development and poverty reduction, emphasizing their benefits for women's empowerment and social status.

Furthermore, ICTs, including mobile phones, have been identified as catalysts for women's empowerment in rural areas (Islam & Slack, 2016). Mittal and Tripathi (2009) discuss the potential of mobile phones in



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enhancing agricultural productivity and rural incomes, while Rasheed et al. (2011) highlight the importance of ICT initiatives in creating job opportunities and enhancing efficiency in women's enterprises. Biswas et al. (2022) emphasize the pivotal role of smartphones in empowering women in the Global South, including Bangladesh, by providing access to learning and livelihood opportunities and facilitating connections with markets and service providers.

While the literature collectively underscores the role of telecommunication, particularly mobile phones, in enhancing women's empowerment, further research is needed to explore specific mechanisms and interventions tailored to the context of Bangladesh. Through nuanced investigation and empirical analysis, future studies can contribute to a deeper understanding of how telecommunication can be leveraged to advance women's empowerment and foster inclusive development in Bangladesh.

METHODOLOGY

This study adopted a mixed-method research approach (McKim 2017), integrating qualitative and quantitative methodologies to comprehensively explore the role of telecommunication, particularly mobile phones, in empowering women in Bangladesh. The purpose of using an explanatory mixed-method approach in this study was to explore the experiences of community women's in using mobile phones in Bangladesh. The methodological framework is guided by Creswell (2009), ensuring a rigorous and systematic investigation.

Both primary and secondary data sources were utilized in this study to provide a comprehensive understanding of the study topic. Aside from collecting secondary literature, primary data was gathered directly from respondents through structured interviews using a semi-structured questionnaire format (Strauss, 2017). The questionnaire was designed to elicit detailed insights into women's experiences with mobile phones and their perceived impact on empowerment across various domains. A purposive sampling method (Campbell et al. 2020) was employed to select 110 women aged 18 and above who actively use mobile phones in the Dhaka and Satkhira districts of Bangladesh. This sampling approach ensures a focused and relevant sample, allowing for in-depth exploration of women's perspectives on mobile phone usage and empowerment.

Quantitative data collected through the questionnaire was processed using statistical software packages such as SPSS and MS Excel. Descriptive statistics method was employed to analyze quantitative variables, providing numerical summaries and insights into key patterns and trends. Qualitative data, consisting of narratives and responses from the interviews, was analyzed thematically to identify recurring themes and patterns related to women's experiences with mobile phones and empowerment. Qualitative findings were e presented descriptively, allowing for a rich and nuanced understanding of participants' perspectives. The mixed-method approach enabled the integration of qualitative and quantitative findings, providing a comprehensive and holistic understanding of the research topic. Triangulation was employed to compare and validate findings across different data sources, enhancing the credibility and reliability of the study.

Ethical principles, including informed consent, confidentiality, and respect for participants' autonomy, were strictly adhered to throughout the research process (Gostin 1991). Participants were provided with detailed information about the study objectives and procedures, and their consent was obtained prior to data collection. Confidentiality of participant information was maintained to ensure privacy and anonymity. While efforts were made to ensure the validity and reliability of the findings, certain limitations may arise, including potential bias in participant responses, limitations of the sampling method, and constraints related to data collection and analysis. These limitations were acknowledged and discussed to provide transparency and context to the study findings.

Theoretical Framework

Telecommunication refers to the exchange of information over significant distances by electronic means, encompassing various mediums such as wired telephones, mobile devices, microwave communication systems, fiber optics, satellites, radio and television broadcasting, the internet, and telegraphic systems. In the context of this study, telecommunication specifically focuses on mobile phones, serving as the primary communication technology.





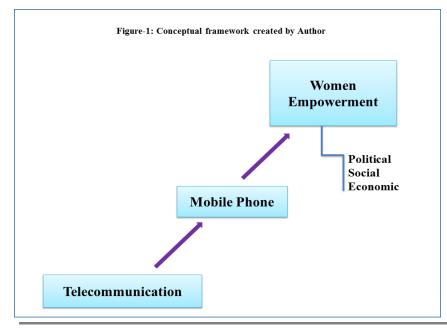
Mobile phones are wireless handheld devices designed for voice communication and data transmission. They enable users to make and receive calls, send text messages, access the internet, engage in social media, access educational resources, conduct online transactions, and more. Mobile phones are categorized into smartphones, offering advanced computing capabilities, and feature phones, providing basic communication functions.

Women empowerment encompasses the facilitation of women assuming command over their lives, exercising agency in decision-making, and engaging comprehensively in all societal domains. It includes economic empowerment, which pertains to women's capacity to access resources and contribute to economic decision-making, social empowerment involving participation in cultural, social, and community pursuits, and political empowerment encompassing engagement in the political process and decision-making endeavors.

Telecommunication, specifically mobile phones, plays a pivotal role in empowering women across economic, social, and political dimensions. Mobile phones provide women with access to information, resources, and communication channels, enabling them to overcome barriers, make informed decisions, and actively participate in various spheres of life. Through mobile phones, women can enhance their economic opportunities, strengthen social connections, and engage in political processes, thereby advancing their empowerment and fostering inclusive development.

The theoretical framework of this study is anchored in Empowerment Theory, as proposed by Julian Rappaport in his seminal work "Studies in Empowerment: Introduction to the Issue" (1984). Empowerment theory focuses on enhancing individuals' and communities' control over their lives by promoting social, political, and economic conditions that enable them to overcome obstacles and achieve their goals. This theory underscores the importance of participation, collaboration, and advocacy in empowering individuals and communities to address systemic issues and effect positive change. Applied to the study, Empowerment Theory provides a guiding lens to examine the multifaceted roles and impacts of mobile phones on empowering women in Bangladesh. It allows for a nuanced exploration of how mobile phones contribute to women's empowerment by providing them with tools for information, communication, and active participation in various spheres of life. The theory emphasizes the interconnectedness of political, economic, and social empowerment, aligning seamlessly with the overarching research questions.

In addition to Empowerment Theory, the theoretical framework is informed by relevant literature exploring the interplay of telecommunication, mobile phones, and women empowerment. Works by Reshi and Sudha (2022), Rahman (2021), Aminuzzaman et al. (2003), Stanley (2005), and others provide insights into the transformative potential of mobile phones in empowering women and addressing socio-economic disparities. These studies contribute to a deeper understanding of the mechanisms through which mobile phones facilitate women's empowerment and highlight the importance of contextual factors in shaping outcomes. The following figure shows the interplay of telecommunication, mobile Phones, and women Empowerment





FINDINGS OF THE STUDY

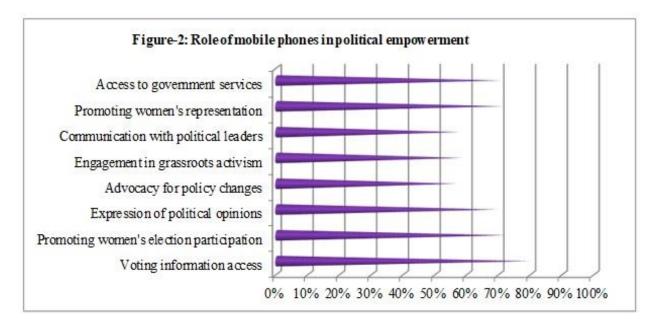
The findings of this study present a comprehensive examination of the roles and impacts of mobile phones on women's empowerment in Bangladesh, drawing on both quantitative and qualitative data analyses. The analysis reveals a diverse and dynamic landscape, encompassing political, economic, and social dimensions of empowerment, while also highlighting the challenges faced by women in utilizing mobile technology for empowerment.

Quantitative Findings

Facilitation of Political Empowerment by Mobile Phones

The respondents articulated various ways in which mobile phones contribute significantly to political empowerment among women in Bangladesh. The findings, as depicted in the figure, illustrate that a substantial majority of respondents highlighted the crucial role of mobile phones in accessing voting information (79.6%), promoting women's active participation in elections (72.2%), advocating for increased women's representation (71.3%), and facilitating access to government services (70.4%). Moreover, a considerable number of respondents acknowledged mobile phones as instrumental tools for expressing political opinions (69.4%), advocating for policy changes (56.5%), engaging in grassroots activism (58.3%), and establishing communication channels with political leaders (57.4%).

These findings underscore the multifaceted roles that mobile phones play in augmenting political empowerment among women in Bangladesh. They elucidate how mobile technology serves as a catalyst for active engagement in political processes, enabling women to voice their opinions, advocate for their interests, and establish direct communication with political leaders. The insights gleaned from the respondents offer a comprehensive understanding of the diverse impacts of mobile phones on women's political participation and empowerment within the Bangladeshi context.



Source: Authors Field Survey, 2023

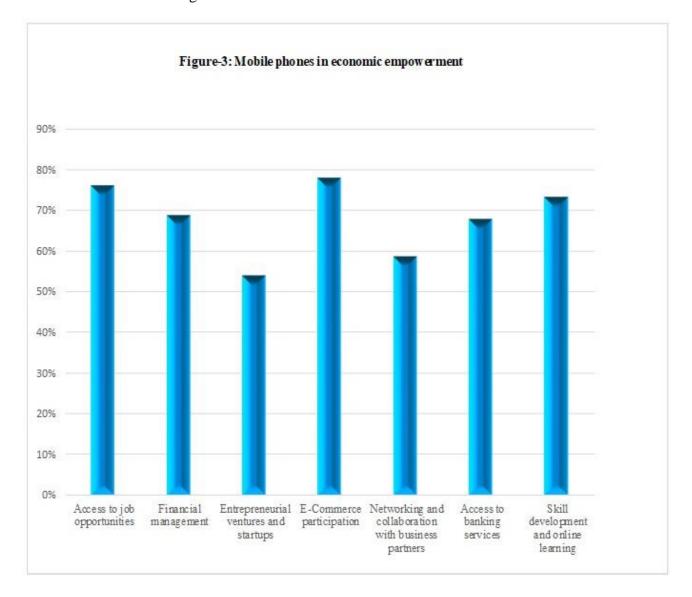
Role of Mobile Phones in Economic Empowerment

The data reveals the contribution of mobile phones to women's economic empowerment in Bangladesh, as indicated by respondents who selected multiple options. They provided valuable insights into how mobile phones facilitate women's economic empowerment in the country. A significant number of respondents recognized the pivotal role of mobile phones in various aspects, including enabling participation in ecommerce (78.0%), providing access to job opportunities (76.1%), promoting skill development and online





learning (73.4%), facilitating financial management (68.8%), ensuring access to banking services (67.9%), fostering networking and collaboration with business partners (58.7%), and supporting entrepreneurial ventures and startups (54.1%). These findings underscore the multifaceted impact of mobile technology on women's economic empowerment, offering opportunities for employment, financial autonomy, entrepreneurial endeavors, and skill enhancement. The diverse economic contributions identified by the respondents highlight the transformative role of mobile phones in enhancing women's economic agency and participation in various economic domains in Bangladesh. economic



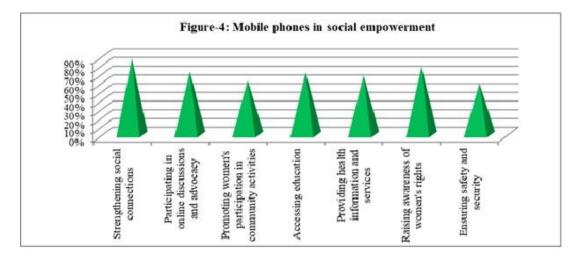
Source: Authors Field Survey, 2023

Mobile Phones and Women's Social Empowerment

The survey data illustrates the significant role of mobile phones in advancing social empowerment for women in Bangladesh. Respondents highlighted various ways in which mobile phones contribute to social empowerment. Notably, 87.2% of respondents emphasized strengthening social connections as a key aspect, showcasing the pervasive influence of mobile technology in fostering interpersonal relationships. Following closely, 78.0% of respondents emphasized the role of mobile phones in raising awareness of women's rights, further emphasizing their instrumental role in societal discourse. Additionally, 72.5% of respondents recognized the role of mobile phones in enabling participation in online discussions and advocacy, underscoring their contribution to women's active engagement in societal discourse. Furthermore, 71.6% of respondents cited mobile phones' role in providing access to education, while 62.4% acknowledged their role in promoting women's participation in community activities. The data also highlighted mobile phones' role in disseminating health information and services (67.9%) and ensuring safety and security (58.7%).



The cumulative data emphasizes mobile phones' comprehensive and transformative influence on various facets of social empowerment, encompassing connectivity, education, health, advocacy, and community participation in the context of women's lives in Bangladesh.

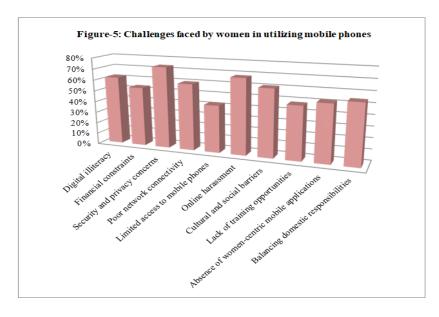


Source: Authors Field Survey, 2023

Challenges Faced by Women in Utilizing Mobile Phones

In the domain of empowerment, women in Bangladesh encounter a myriad of challenges when utilizing mobile phones, as revealed by respondents. The challenges faced by women are varied and concerning, including security and privacy concerns (73.6%), online harassment (68.2%), and digital illiteracy (61.8%). Additional challenges identified encompass poor network connectivity (60.0%), financial constraints (53.6%), limited access to mobile phones (42.7%), and cultural and social barriers (60.9%). Moreover, respondents highlighted the lack of training opportunities (48.2%), the absence of women-centric mobile applications (51.8%), and the struggle to balance domestic responsibilities (54.5%) as significant challenges.

These findings underscore the multifaceted obstacles that women encounter in their quest for empowerment through mobile technology, shedding light on areas that necessitate attention to foster inclusive and accessible mobile phone usage for women in Bangladesh.



Source: Authors Field Survey, 2023

Qualitative Findings

In the previous section, the quantitative data analysis in Figures 2, 3, and 4 illuminated how mobile phones





empower women in Bangladesh across political, social, and economic dimensions. These insights were gleaned from respondents' responses to close-ended questions. However, complementing these quantitative findings, qualitative data was collected through open-ended questions posed during interviews. The participants were asked, "How does a mobile phone assist you in being empowered?" Their responses provided rich and varied insights into the multifaceted ways mobile phones contribute to the empowerment of Bangladeshi women across political, social, economic, and other domains. These qualitative responses offer a

deeper understanding of the nuanced roles mobile phones play in facilitating the empowerment journey of

Communication and Connectivity

women in Bangladesh.

A recurring theme among respondents is the significant role of mobile phones in facilitating communication. They emphasized the convenience of connecting with family, friends, and associates, both locally and globally. For instance, Jamirun (42) from Dhaka district highlighted her reliance on mobile phones for communication within her family and business network. Similarly, Halima Akter (51) expressed the integral role of mobile phones in her life, stating, "Mobile phones have become a part of my daily routine." Asha Sarkar (34) emphasized the enhanced ease of communication and information retrieval facilitated by mobile phones. Entrepreneur Parvin Khatun (45) further elaborated on using mobile phones to communicate with customers, underscoring its role in business interactions. Overall, respondents emphasized how mobile phones contribute to maintaining close relationships, sharing information, and staying informed about current events, thus enhancing social connectivity.

Access to Information

Access to information emerged as another crucial aspect of mobile phone usage highlighted by respondents. They acknowledged the convenience and immediacy of accessing a diverse range of information, from news updates and educational content to political developments and online transactions. Moriam Khatun (34) and Nishat Tasnim (26) emphasized how mobile phones enhance awareness of women's rights and provide access to both local and international news. Apu Rani echoed similar sentiments, underlining the utility of mobile phones in obtaining necessary information. Most. Hafiza (33) emphasized the ease of accessing information through mobile phones, reflecting a consistent theme among respondents.

Economic Empowerment

Economic empowerment was a recurring theme in respondents' narratives, with several highlighting the impact of mobile phones on their entrepreneurial activities. Bashira Banu (37), an entrepreneur running a home-based food business, exemplified how mobile phones streamline communication and facilitate financial transactions with customers. This underscores the integral role of mobile phones in supporting business operations and ensuring customer engagement.

Education in Relation to Skill Enhancement

Moreover, respondents highlighted the instrumental role of mobile phones in supporting educational pursuits and skill development. Murshida Rahman (25), a postgraduate student, detailed how mobile phones enhance knowledge acquisition, facilitate assignments, and support skill enhancement through online resources and networking opportunities. This reflects the transformative impact of mobile phones on educational access and skill development, particularly for individuals without access to traditional learning resources.

Political Engagement and Advocacy

Additionally, respondents discussed the role of mobile phones in political engagement and advocacy, emphasizing their ability to stay informed, connect with political leaders, and express opinions online. Shriti Akter (24) and a politician from Satkhira highlighted how mobile phones facilitate communication and advocacy efforts, contributing to informed civic participation. Tahmina Akter Tanu (33) underscored the significance of online discussions and advocacy in shaping a more participatory society.





Respondents' narratives underscored the multifaceted ways in which mobile phones contribute to empowerment, from communication and economic activities to education and political engagement. These insights highlight the importance of digital inclusion and accessibility in ensuring equitable distribution of the benefits of mobile technology, thereby fostering the overall empowerment of women in Bangladesh.

DISCUSSION

The findings from both quantitative and qualitative analyses shed light on the multifaceted role of mobile phones in empowering women in Bangladesh across political, social, economic, and educational domains. These insights contribute to a deeper understanding of how mobile technology serves as a catalyst for women's empowerment in the country.

The quantitative analysis revealed that mobile phones significantly contribute to political empowerment by enabling women to access voting information, participate in elections, advocate for representation, and engage in political discourse. These findings align with existing literature that emphasizes the role of mobile phones in enhancing political participation and civic engagement among women (Gurumurthy & Chami, 2014; Rashid, 2016). The ability to express political opinions, advocate for policy changes, and communicate with political leaders through mobile phones not only amplifies women's voices but also strengthens their agency in shaping political processes.

Similarly, the quantitative data highlighted the pivotal role of mobile phones in economic empowerment, enabling women to engage in e-commerce, access job opportunities, develop skills, manage finances, and foster entrepreneurial ventures. These findings resonate with studies that underscore the transformative impact of mobile technology on women's economic participation and financial inclusion (Donner & Tellez, 2008; Jensen, 2007). Mobile phones serve as powerful tools for bridging information gaps, connecting women to economic opportunities, and empowering them to pursue entrepreneurial endeavors, thereby contributing to poverty alleviation and economic development.

The quantitative analysis also underscored the significant contribution of mobile phones to social empowerment, facilitating social connections, raising awareness of women's rights, enabling participation in online discussions, and providing access to education and health information. These findings align with research highlighting the role of mobile phones in strengthening social networks, promoting gender equality, and improving access to essential services (Chapman & Slaymaker, 2002; Qiang et al., 2012). By enhancing connectivity and access to information, mobile phones empower women to engage in societal discourse, access educational resources, and seek healthcare services, thus fostering social inclusion and well-being.

However, despite the evident benefits, the qualitative analysis revealed several challenges faced by women in utilizing mobile phones for empowerment. These challenges include security concerns, online harassment, digital illiteracy, poor network connectivity, financial constraints, and cultural barriers. These findings echo previous research highlighting the gendered dimensions of mobile phone access and usage, with women facing greater barriers to adoption and utilization (Gurumurthy & Chami, 2014; Hafkin & Huyer, 2008). Addressing these challenges requires comprehensive strategies that promote digital literacy, address infrastructure gaps, mitigate security risks, and promote gender-responsive policies and programs.

Finally, the findings underscore the transformative potential of mobile phones in empowering women in Bangladesh across various domains. By addressing the challenges and leveraging the opportunities presented by mobile technology, policymakers, development practitioners, and stakeholders can work towards fostering inclusive and equitable digital ecosystems that empower women and advance gender equality in Bangladesh and beyond.

CONCLUSION

This empirical study provides a comprehensive exploration of how mobile phones impact women's empowerment in Bangladesh, offering insights into various dimensions of their influence. It reveals the positive effects on political empowerment, as mobile phones facilitate increased political engagement, access





to voting information, and the free expression of political views. Economically, they contribute to job opportunities, financial literacy, entrepreneurial endeavors, and active participation in e-commerce, highlighting their role in promoting economic empowerment. Socially, mobile phones strengthen social ties, enable online advocacy, foster community engagement, provide educational access, disseminate health information, raise awareness of women's rights, and enhance safety and security. However, challenges such as digital illiteracy, financial constraints, security concerns, and network issues persist. Addressing these challenges is essential for creating an environment where mobile phones can truly serve as powerful tools for advancing women's rights and opportunities in Bangladesh.

REFERENCES

- 1. Aminuzzaman, S., Baldersheim, H. & Jamil, I. (2003). Talking back! Empowerment and mobile phones in rural Bangladesh: A study of the village phone scheme of Grameen Bank. Contemporary South Asia, 12(3), 327-348.
- 2. Bayissa, F. W., Smits, J., & Ruben, R. (2018). The Multidimensional Nature of Women's Empowerment: Beyond the Economic Approach. Journal of International Development, 30(4), 661– 690. https://doi.org/10.1002/jid.3268
- 3. Batliwala, S. (1995). Meaning of women's empowerment. Women's World, 23-34.
- 4. Bayes, A., Von Braun, J., & Akhter, R. (1999). Village pay phones and poverty reduction: Insights from a Grameen Bank initiative in Bangladesh. ZEF Discussion Papers on Development Policy, (No. 8).
- 5. Biswas, M., Anwar, M., Saha, M., Ahmed, N., Strengers, Y., Stillman, L., & Oliver, G. (2022). The World is in my hand now: Smartphones for empowering rural women in developing countries. In Proceedings of the 2022 International Conference on Information and Communication Technologies and Development, 1-11.
- 6. Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., ... Walker, K. (2020). Purposive sampling: complex or simple? Research case examples. Journal of Research in Nursing, 25(8), 652-661. https://doi.org/10.1177/1744987120927206
- 7. Chapman, R., & Slaymaker, T. (2002). ICTs and Rural Development: Review of the Literature, Current Interventions and Opportunities for Action. ICTs and Rural Development, 1-45. Retrieved from http://www.odi.org.uk/resources/download/1985.pdf
- 8. Creswell, J. W. (2009). Research design: Qualitative, quantitative, and mixed methods approaches. Sage Publications.
- 9. Donner, J., & Tellez, C. A. (2008). Mobile banking and economic development: Linking adoption, use. Asian Journal Communication, 18(4), of https://doi.org/10.1080/01292980802344190
- 10. Ferdousi, F., & Mahmud, P. (2019). Role of social business in women entrepreneurship development in Bangladesh: perspectives from nobin udyokta projects of Grameen Telecom Trust. Journal of Global Entrepreneurship Research, 9(1), 58.
- 11. Gostin, L. (1991). Ethical Principles for the Conduct of Human Subject Research: Population-Based Ethics. The Journal of Law, Medicine & Ethics, 19(3–4), and https://doi.org/10.1111/j.1748-720X.1991.tb01814.x
- 12. Gurumurthy, A., & Chami, N. (2014). Gender and mobiles in development. In Mobile Media, Political Participation, and Civic Activism in Asia: Private Chat to Public Communication (pp. 50-68). Springer.
- 13. Hafkin, N. J., & Huyer, S. (2008). Women and Gender in ICT Statistics and Indicators for Technologies Development. Information International Development, 4(2), and 25-41. https://doi.org/10.1162/itid.2008.00006
- 14. Hossine Sharif, S. (2016). The role of telecommunication over the economic development of Bangladesh. University Library of Munich, Germany.
- 15. Hossain, N. (2012). Women's Empowerment Revisited: From Individual to Collective Power among Sector Bangladesh. IDS Papers, 2012(389), the Export Workers of Working 1-40.https://doi.org/10.1111/j.2040-0209.2012.00389.x
- 16. Hultberg, L. (2008). Women empowerment in Bangladesh: A study of the village pay phone program.





- Master Thesis, Jönköping University, Jönköping, Sweden.
- 17. Rashid, A. T. (2016). Digital Inclusion and Social Inequality: Gender Differences in ICT Access and Use in Five Developing Countries. Gender, Technology and Development, 20(3), 306–332. https://doi.org/10.1177/0971852416660651
- 18. Islam, M. K., & Slack, F. (2016, March). Women in rural Bangladesh: Empowered by access to mobile phones. In Proceedings of the 9th International Conference on Theory and Practice of Electronic Governance, 75-84.
- 19. Jensen, R. (2007). The digital provide: Information (technology), market performance, and welfare in the South Indian fisheries sector.
- 20. Joseph, R. (2020). The theory of empowerment: A critical analysis with the theory evaluation scale. Journal of Human Behavior in the Social Environment, 30(2), 138-157.
- 21. Malhotra, A., Schuler, S.R. and Boender, C. (2002). Measuring women's empowerment as a variable in international development. The World Bank.
- 22. McKim, C. A. (2017). The Value of Mixed Methods Research: A Mixed Methods Study. Journal of Mixed Methods Research, 11(2), 202–222. https://doi.org/10.1177/1558689815607096
- 23. Mittal, S., & Tripathi, G. (2009). Role of mobile phone technology in improving small farm productivity. Agricultural Economics Research Review, 22(347-2016-16874), 451-460.
- 24. Padmannavar, S. S. (2011). A review on E-Commerce empowering women's. International Journal of Computer Science and Telecommunications, 2(8), 74-78.
- 25. Pei, X., & Chib, A. (2021). Beyond the gender (dis)empowerment dichotomy: The mobile phone as social catalyst for gender transformation in the Global South. New Media and Society, 23(3), 578–595. https://doi.org/10.1177/1461444820905295
- 26. Qiang, C. Z., Kuek, S. C., Dymond, A., & Esselaar, S. (2012). Mobile applications for agriculture and rural development. ICT Sector Unit, World Bank.
- 27. Rahman, D. M. (2021). Women empowerment through mobile phone: Case study of Bangladesh. Global Journal of Human-Social Science, 25–37.
- 28. Rahman, M. S., Haque, M. E., Afrad, M. S. I., Hasan, S. S., & Rahman, M. A. (2023). Impact of mobile phone usage on empowerment of rural women entrepreneurs: Evidence from rural Bangladesh. Heliyon, 9(11).
- 29. Rahman, M. M., Khanam, R., & Nghiem, S. (2017). The effects of microfinance on women's empowerment: New evidence from Bangladesh. International Journal of Social Economics, 44(12), 1745–1757. https://doi.org/10.1108/IJSE-02-2016-0070
- 30. Rappaport, J. (1984). Studies in empowerment: Introduction to the issue. Prevention in human services, 3(2-3), 1-7.
- 31. Reshi, I. A., & Sudha, T. (2021). Self-Help group movement has made great strides in the fields of women empowerment. Turkish Online Journal of Qualitative Inquiry, 12(7).
- 32. Reshi, I. A., & Sudha, T. (2022). Women empowerment: A literature review. International Journal of Economic, Business, Accounting, Agriculture Management and Sharia Administration (IJEBAS), 2(6).
- 33. Srivastava, V. M., & Singh, G. (2014). MOSFET technologies for double-pole four-throw radio-frequency switch. Springer International Publishing.
- 34. Stanley, R. (2005). Village phone—a tool for empowerment. Grameen Foundation, USA Publication Series.
- 35. Strauss, A. L. (2017). The discovery of grounded theory: Strategies for qualitative research. Routledge.
- 36. Sulaiman, V. R., Kalaivani, N. J., Mittal, N., & Ramasundaram, P. (2011). ICTs and empowerment of Indian rural women: What can we learn from on-going initiatives. Centre for Research on Innovation and Science Policy (CRISP).
- 37. Tandon, T. (2016). Women empowerment: Perspectives and views. International Journal of Indian Psychology, 3(3).