

Mobile Phone: A Key To Women's Empowerment And Social Progress

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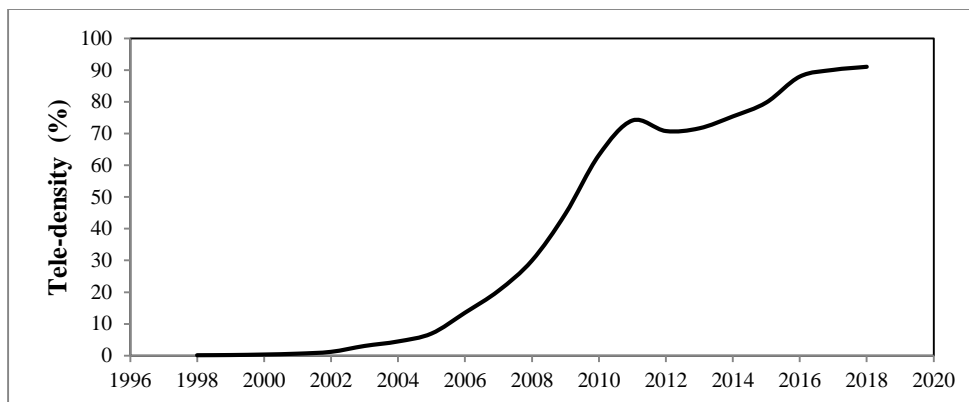
Abstract - Statistics have already shown that mobile phone penetration has led to increased growth of GDP in India. In this paper, the impact of mobile phones on the status of women in India has been examined. It has been analysed how mobile usage enables self-sufficiency and decision-making and gradual independence from domestic violence. Owning a cell phone led to women being economically independent. In this study, primary data has been used to compute the socioeconomic implications when women own a cell phone. It is observed that mobile phones serve as a liberator for women relieving them from social confinement by lifting communication barriers. We go through their concerns, viewpoints, ideas or plans to establish self-sufficiency parameters. The primary data collected from women aged between 20 and 60 years show that cell phones allow women to easily report domestic violence. The study revealed that irrespective of students, in-service women, or housewives, mobile phones are more positive than negative. It is a strong tool for personal safety.

Keywords: Women empowerment, Women educational progress, Women safety

1. INTRODUCTION

In the last few years, the use of mobile phones has grown enormously. India has the second-largest mobile phone market followed by China. Statistics have already shown that mobile phone penetration has led to increased growth of GDP in India. The mobile industry was responsible for 6.5% of India's GDP, a contribution of about \$140 billion of economic value added in 2015 (GSMA, 2016). Almost half the country's population now subscribes to a mobile service. The number of users has increased from <1 million in 1998 to >1 billion in 2018 (Telecom Regulatory Authority of India, 2018). Tele-density, that is the number of mobile-cellular phones per 100 inhabitants in India increased from 0.3 in 2000 to 87 by 2017 (Figure 1.1). "By 2023, the smartphone data consumption will increase by five times in India - which proves the dominance of smartphones as the communications hub for social media, video consumption, communications, and business applications, as well as traditional voice," (Cisco Study, 2018)

Figure 1.1: Tele-density in India



Source: Telecom Regulatory Authority of India

The penetration of mobile phones in India has made huge changes in the behavior of the people. Both the social and economic spheres of the country have changed with the increasing use of mobile phones. The mobile phone has so much influence in society that it has become a key 'social object' across the nation.

According to the National Family and Health Survey – 4 (NFHS 2015-16), 90.4 percent of households in India have a mobile phone. However, there is a disparity in the use of mobile phones in different geographical areas. About 96 percent of households in urban areas have mobile phones while 87 percent of households in rural areas have mobile phones. Similarly, this survey also calculated women empowerment and gender-based violence by taking mobile phone ownership of women (age 15-49 years) as an indicator. About 46 percent of women have a mobile phone that they use while about 80 percent of men in India use Mobile phones. Out of total women two-thirds of women who have a mobile phone can read text messages. The survey also reveals that the ownership of mobile phones increases with women's age. About 25 percent of women mobile phone users are in the age group of 15-19 years, 56 percent belongs to the 25-29 years age group women and then decreases for older women.

Recently the #MeToo movement is an enormous show of the power of mobile phones and women. #MeToo is a social media movement against sexual harassment and assault. The movement touched all continents of the globe and impacted almost every industry - fashion, films, finance, technology, academia, government, sports, medicine, music, military etc.

Moreover, the COVID-19 pandemic has changed people's behavior across the world. 'Mobile phones have become even more essential during the COVID-19 pandemic to foster and strengthen social connections and overall well-being' (David and Roberts, 2021).

2. Literature Review

Women's empowerment is the key to all development. Without empowering women, a society cannot progress. Endalcachew et al (2016) state that women's empowerment is the right of a woman to make their own life-determining decisions to face different problems of society.

Women's empowerment encompasses multidimensional aspects. 'Some of the commonly used measures' of women empowerment noted by Aslam, (2013) reported from the International Seminar held at UIE, Hamburg (1993) are 'empowerment at the individual and household level' ('the extent to which men

share women's domestic duties/responsibilities; control of her reproductive functions; spending of own income; preventing violence; control over life etc), 'community level empowerment' (women's organisations; women leaders, participation in community programmes) and at the 'national level' (political awareness, 'integration of women in the general national development plan' etc.

To obtain women's empowerment, a minimum of 8 to 10 years of education has been found as a major variable (Kabeer, 2011). Even 'illiterate women in Pakistan learned to write and read using mobile phones' (Gabor, K. & Peter, E, 2015).

The latest National Family and Health Survey – 4 (NFHS 2015-16) introduces a new category to women empowerment that is 'women having a mobile phone that they use'. Thus, it can be said that nowadays the impact of mobile phones on women's empowerment is enormous. According to Lee (2009) mobile phones 'are potentially an invaluable economic asset to the poor and an important tool for strengthening social ties. 'Mobile phones significantly decrease both men's and women's tolerance for domestic violence and increase women's autonomy in mobility and economic independence. 'It is a substitute for computer for the poor (Geser, 2004). It has a 'stronger growth impact' (Waverman, Meschi and Fuss 2005).

In the last few decades, the spread of the internet helped women to empower themselves through online activity (Churchyard, 2009). Nowadays 'the accessibility and affordability of e-learning helped them to study from their homes (Radovic-Markovic; Nelson-Porter and Omolaja, 2012). A study from Niger revealed that 'when women took cash transfers through mobile money application rather than as cash, household dietary diversity improved, a result attributed to women's increased bargaining power within the household' (Aker et al, 2014).

3. Objectives

1. To find out the national scenario of mobile phone use by women as a parameter of empowerment.
2. To assess the perception of women regarding empowerment with mobile phones as one of the media across different social statuses, age-group and educational levels of women.

4. Materials and methods

The present study is based on both primary and secondary data. Secondary data has been taken from the NFHS 4 report, the GSMA report and the ITU report. The primary data has been collected from a primary survey of 150 women between 20 and 60 years age group. The respondents were selected by a random sample survey from different wards of Kolkata Municipal Corporation.

The respondents are further categorised based on their present statuses like students, in-service women, housewives and unmarried unemployed women. A questionnaire has been prepared for this purpose. The data has been analysed with the help of statistical and descriptive techniques like graphs and tables. To prepare the questionnaire, Khan J, Khan Z Malik, Amin S's (2014) literature has been followed.

To describe empowerment some of the parameter that has been used are indirectly related to empowerment. These are-

1. Reasons for buying a mobile phone
2. Academic Performance and mobile phone

3. Mobile phone data usage pattern and cost of a handset
4. Social media as a platform for women's empowerment
5. Mobile phones as a weapon against violence

Owing a mobile phone is not just a status symbol but it also reflects the dimensions of autonomy and empowerment (Singh et al, 2018). So, the first proxy reflects the wisdom of women to become empowered. Here, 13 prefixed parameters, which act as reasons for buying a mobile phone, were asked to find out which one is more applicable to them. These were: 1. Security and emergency communication; 2. Staying in touch with friends; 3. Staying in touch with family; 4. Discuss education-related work; 5. Office-related work (if working); 6. Retrieve sports scores and news; 7. Check email 8. Listen to music or radio, 9. Watch the video, 10. Calendaring and appointments, 11. Clock and alarm, 12. Purchase tickets (movies, concerts, sports, etc), 13. Banking, shopping or mobile commerce or paying bills. All these parameters try to find out the perception of women regarding mobile phone buying.

Women's education level is one of the most important factors in women's empowerment. At present all schools and colleges use computers and the internet as a learning tool. Mobile use is 'gradually gaining space in institutional education' around the world (Gabor, K. & Peter, E, 2015). In many cases, mobile phones are used as a small version of computers. A large number of studies revealed that mobile learning has a good impact on students' development. So, respondents were asked about the benefits of mobile phones in their educational progress.

The third proxy is mobile phone data usage pattern. Across the world 'women are using the power of mobile phones to unlock economic opportunities' (Groupe Special Mobile Association Report, 2013). The survey asked about the mobile phone data usage pattern of the respondents which indirectly reflects women's economic independence.

Recently social media access via mobile phone has shown enormous solidarity between women. Movements like #MeToo are social media movements against sexual harassment and assault that brought vocal women together. Mobile phones have been used as an easily available technology to access social media. Hence, the fourth proxy is used to find out women's perceptions regarding social media through mobile phones.

To find out the use of mobile phones as a weapon against violence the fifth proxy has been used. The respondents were asked about their perception regarding mobile phones as a weapon against violence.

5. Discussion and Results

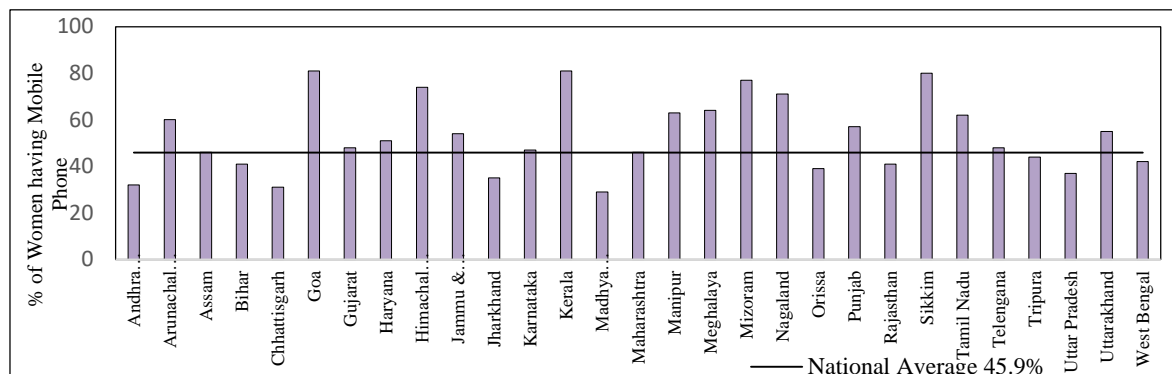
5.1. Women's empowerment in terms of the use of mobile phones across India

According to NFHS 4 data, having a mobile is one of the indicators of women's empowerment. The survey revealed that 46 percent of women in the age group of 15-49 have a mobile phone across the nation. The use of mobile phones increases with age. About 56 percent of women in the age group 25-29 years use mobile phones followed by 25 percent in the age group 15-19 years (Table 5.1).

Figure 5.1 assesses the distribution of mobile phones across the country among women in the 15-49-year age group. The state of Madhya Pradesh is found to be the lowest user of mobile phones (29 percent) followed by Chhattisgarh (31 percent) and Jharkhand (35 percent). States like Sikkim, Goa and Kerala are

the highest user (80-81 percent) of this technology. The use of mobile among the women of West Bengal is a little below (41 percent) of the national average (of 45.9 percent).

Figure 5.1: Women Having a Mobile Phone Across India



Source: NFHS 2015-16

Out of the five indicators of women empowerment used in the NFHS 4 survey, two indicators are analysed here to find out the association between them. These are mobile phone use and household decision-making across all the states. A correlation has been performed to find the association. The correlation matrix (Table 5.2) shows that household decision-making is strongly correlated with mobile phone use ($r=.652^{**}$, 0.01 level of significance).

Table 5.2: Correlation between House hold Decision Making and Mobile use

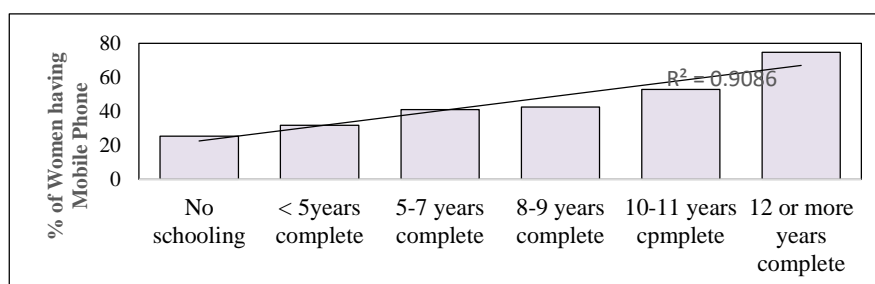
Variables	Mobile use	House hold Decision Making	Women who have 10 or more years of schooling
Mobile use	1		
Household Decision Making	.652**	1	
Women who have 10 or more years of schooling	.637**	.249	1

** . Correlation is significant at the 0.01 level (2-tailed).; N=29

Source: NFHS-4 (2015-2016)

Likewise, women empowerment data also reveals an increasing trend in mobile phone use with higher educational qualifications (Figure 5.2). About 75 percent of women with 12 years or more years of education (schooling education) use mobile phones. On the other hand, only 25 percent of women who have no schooling experience use mobile phones. The correlation matrix (Table 5.2) also shows a strong positive correlation between mobile phone use and schooling ($r=.637^{**}$, 0.01 level of significance). This association clearly shows how mobile phones become valuable gadgets among educated women.

Figure 5.2: Educational Attainment and Women Having a Mobile Phone



Source: NFHS 2015-16

5.2. Perception of women regarding empowerment with mobile phones as one of the media

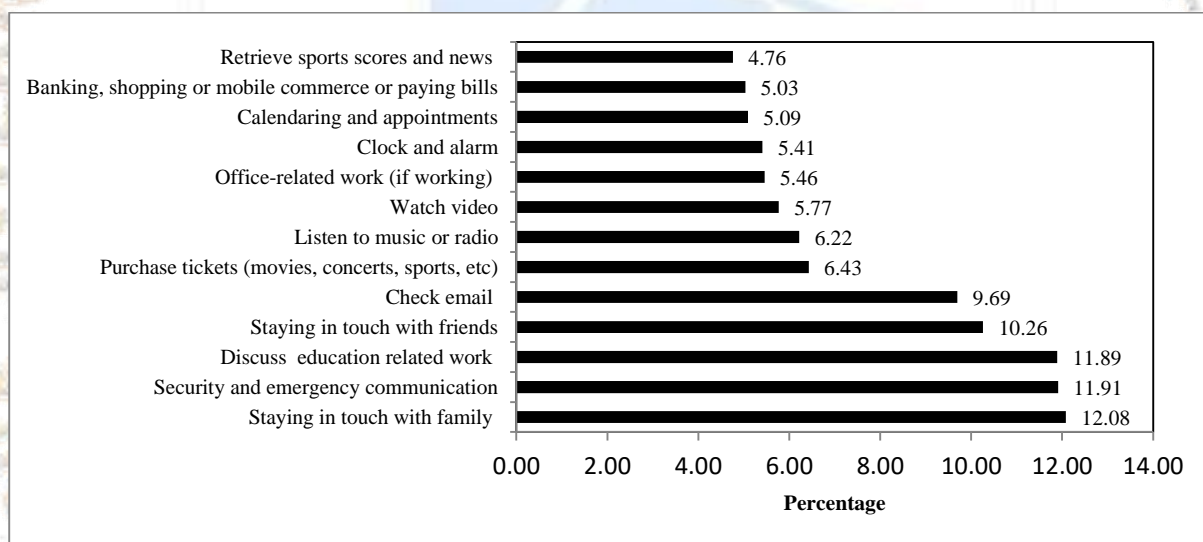
In women’s responses, it has been found that mobile phones have significant association with women’s empowerment and social development. According to the survey it observed that the majority of the women say mobile phones are bringing freedom to women. The survey also shows that mobile phones have strongly positive relation to education and people’s economic development. Some of the parameters which are closely related to women's empowerment, are discussed below:

5.2.1. Mobile phone usage scenario

A few questions were asked to find out how women use mobile phones in their day-to-day life. They were given 13 options to find out the purpose of mobile use. These options are:

1. Security and emergency communication; 2. Staying in touch with friends; 3. Staying in touch with family; 4. Discuss education-related work; 5. Office-related work (if working); 6. Retrieve sports scores and news; 7. Check email 8. Listen to music or radio, 9. Watch video, 10. Calendaring and appointments, 11. Clock and alarm, 12. Purchase tickets (movies, concerts, sports, etc), 13. Banking, shopping or mobile commerce or paying bills. Figure 5.3 shows that most of the women said that the basic use of the mobile phones is to ‘stay in touch with family’ followed by ‘Security and emergency communication’ and ‘Discuss education related work.’

Figure 5.3; Mobile phone usage scenario



Source: Primary Survey; 2021

The respondents were given 13 options and asked to rank in order of their preference. Out of these 13 variables, the mostly answered and highest ranked variable is ‘Security and emergency communication’. About 55 percent rank it as the number one option and 25 percent ranked it as number two. The other two parameters which received greater value are ‘Staying in touch with family’ and ‘Discuss education-related work’. ‘Staying in touch with family’ is the most common use of mobile phones which get a 27 percent rank one share and ‘Discuss education related work’ got a 23 percent rank share (table 5.3).

Further, when the respondents are categorised according to their present status (students, in-service women, housewife and unmarried unemployed) it has been observed that all unmarried unemployed women ranked ‘security and emergency communication’ as number one. This is followed by in-service women and

students. Housewives have some different opinions. This scenario clearly indicates how important mobile phone is in the present society (Table 5.4).

Table 5.4; Response to the parameter of ‘Security and emergency communication’

Present status of women	Rank in order of Preference (%)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Student	0.0	0.0	0.0	100.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Service	59.3	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.6
House wife	15.0	35.0	30.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unmarried unemployed	100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: Primary Survey; 2021

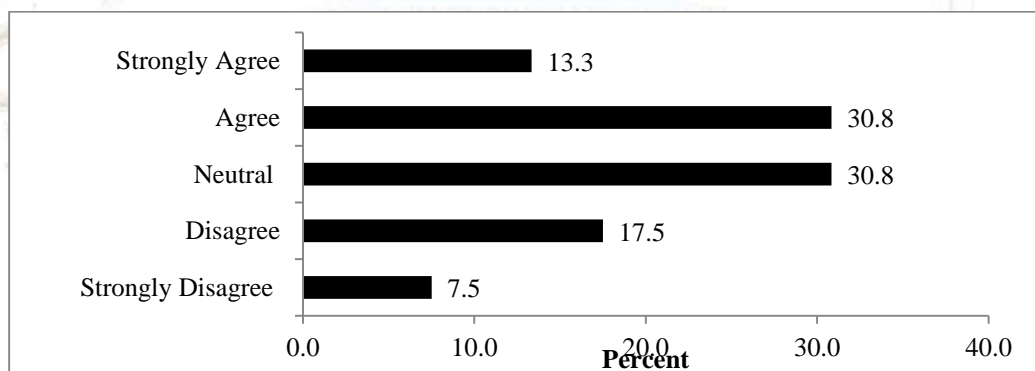
Opinion of the Parents or guardians

The female students were asked about their parent’s or guardian’s opinions regarding their feeling about mobile phones with them. 100 percent of the parents or guardians believed they feel safe as their daughters are with mobile phones. They can easily contact them in case of any emergency.

5.2.2. Academic Performance and mobile phone

The respondents were asked whether students’ academic performance increased due to mobile phones or not. Out of the total respondents, all the students agreed that without mobile phones they could not study during the Covid pandemic. They have opined that through mobile phones with the internet they did online classes, and they can see video tutorials and lectures via YouTube classes. They can download the tutorials and learn them with a little data cost. Further, when they are unable to attain class, they can get the class notes easily from friends via email or WhatsApp. If reference books are not available, they can search it on Google. Figure 5.4 shows the respondent's opinion where about 43 percent of respondent agreed that mobile phone helps in studies and 30 percent remain neutral. Out of the total respondents, all the students agreed that without mobile phones they could not study during the Covid pandemic.

Figure 5.4; Opinion on ‘good impact of phone use on education’



Source: Primary Survey; 2021

5.2.3. Cost of Handset Cost and Mobile phone data usage pattern as a Parameter of Women's economic Independence

There is a variety of mobile phone handsets. Nowadays it is become a status symbol to have a costly mobile phone. Besides, having an Android phone helps people in many aspects directly or indirectly like safety, online education or economic development. In the present survey, it has been observed that the cost of handsets that women are using varies from Rs.5000 to Rs. 60000. The cost of handsets reflects their socio-economic position. Here it has been observed that Scheduled Caste women are using low-cost handsets compared to General caste women (Table 5.5). Irrespective of students, in-service women, and housewives are using costly mobile handsets.

The respondents were asked about their mobile phone usage pattern that is how much time they turn their phone on, whether they have access to the internet and how much time they access the internet. This answer is also showing a positive relationship with empowerment. About 87 percent keep their mobile on the whole day long, cent percent have an internet connection and 34 percent always keep the internet on. An average of Rs. 200 (mean Rs.196.03) is the spending per month with a minimum value of Rs. 100 and a maximum value of Rs. 399. Students are mostly using Rs. 100-200 packs and in-service women are using Rs 300 packs.

5.2.4. Mobile Phones as social media

Now as day social media has become an important platform for women to socializing, protesting and empowerment. It has been observed that younger adults use mobile phones more than older adults. The respondents were asked about their opinion on 'Social media are good for society'. Interestingly half of the respondents agreed with this statement and the rest of the half stayed neutral (Table 5.6). Among all respondents in service, women are widely in favour of using mobile phones for social media followed by students. However, housewives are neutral regarding this matter. About 80 percent of the respondents use mobile phones as the medium of social media.

5.2.5. Personal Safety and Mobile phone

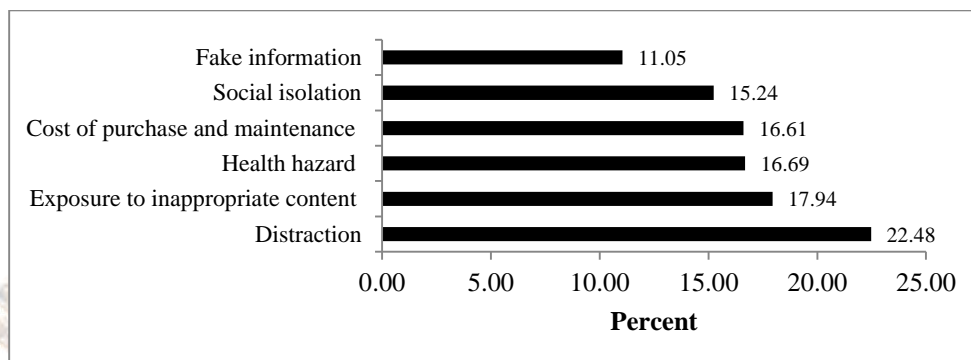
Regardless of the type of mobile phone women use, most of the women say that they have started using mobile phones for emergency or personal safety. Out of total of 8 reasons provided to the women surveyed 'For emergency and Personal safety,' reason got the highest rank, where about 78 percent of respondent answered rank one. Other rank-one variables are 'For information access (phone numbers, internet, email, sports scores, etc)' got a 10 percent vote followed by 'To keep in touch with parents (9.2 percent) and privacy (5 percent). This result indicates that these women are carrying mobile phones for their safety, for gathering outside information, to keep in touch with parents and for privacy and all these indicators indicate their willingness to become self-sufficient, a freedom that leads to empowerment.

Among the respondents, 60 percent of woman has reported domestic violence. Out of these 60 percent of respondents about 13 percent has reported that mobile phone has saved them from any kind of domestic violence at any point in time. About 78 percent reported that they have not faced any domestic violence but if it happens mobile phones will be the first medium of complaint.

5.2.6. Negative effects of mobile phone

Respondents were asked about the potential risks of mobile phone use. Some of the reasons which came out from the survey are distraction, exposure to inappropriate content, health hazard, cost of purchase and maintenance, social isolation, and fake information. The following diagram (Figure 5.5) shows respondent’s opinions regarding the negative effects of mobile phones. Out of all causes, distraction came out as the most important negative effect followed by exposure to inappropriate content and health hazard.

Figure 5.5; Negative effects of mobile phone



Source: Primary Survey; 2019

6. Conclusions

The study clearly shows that the use of mobile phones is growing very fast day by day. Across India, the use of the mobile phones has changed the nature of women's behavior. From the study it has cleared irrespective of students, in-service women, or housewives majority say mobile phones are more positive than negative. It is a strong tool for personal safety. The digital world has empowered the woman as they have a new, but accessible avenue to address their problems – be it educational problems, health problems, family planning, childcare, or maternity problems. The mobile phone has become a significant safety device in the last few years. The digital world facilitates safe work participation. With a better balance between work or education and home, the outer world safeties are beneficial for many.

Finally, mobile usage enables self-sufficiency and decision-making, and gradual independence from domestic violence. Owning a cell phone lead to women being economically independent. It is observed that mobile phones serve as a liberator for women relieving them from social confinement by lifting communication barriers.

References

1. Aker, J., Boumnijel, R., McClelland, A., Tierney, N., 2014. Payment Mechanisms and Anti-poverty Programs: Evidence from a Mobile Money Cash Transfer Experiment in Niger. Working Paper 268.
2. Aslam, M. (2013) Empowering Women: Education and the Pathways of Change. Paper commissioned for the EFA Global Monitoring Report 2013/14. Paris: UNESCO. Source: ‘Women, Education and Empowerment: Pathways Towards Autonomy’ UNESCO (1995), Report of the International Seminar held at UIE, Hamburg, 27 January -2 February 1993.

3. Bayeh, Endalcachew (January 2016). "The role of empowering women and achieving gender equality to the sustainable development of Ethiopia". *Pacific Science Review B: Humanities and Social Sciences*. **2** (1): 38. doi:10.1016; Available at: [j.psrb.2016.09.013](https://doi.org/10.1016/j.psrb.2016.09.013).
4. Churchyard, N. (2009). "The Question of Empowerment: Women's Perspective on Their Internet Use". *Gender, Technology and Development*. **13** (3): 341–363. doi:10.1177/097185241001300302.
5. CISCO, 2018, Annual Cyber Security Report, Available at: https://www.cisco.com/c/dam/m/hu_hu/campaigns/security-hub/pdf/acr-2018.pdf
6. David M.E., Roberts J.A. Smartphone Use during the COVID-19 Pandemic: Social Versus Physical Distancing. *Int. J. Environ. Res. Public Health*. 2021;**18**:1034
7. Gabor, K. & Peter, E. (2015). Implementation of mobile phones in education. Retrieved on 23rd May 2016; Available at: <https://www.researchgate.net/publication/282208795>
8. Geser Hans (2004): Towards a Sociological Theory of the Mobile Phone. In: *Sociology in Switzerland: Sociology of the Mobile Phone*. Online Publications, Zuerich March 2004 (Release 3.0); Available at: http://socio.ch/mobile/t_geser1.pdf
9. Groupe Special Mobile Association Report, 2013; Women & Mobile: A Global Opportunity A study on the mobile phone gender gap in low and middle-income countries; GSMA report 2013; Available at: <https://www.gsma.com/newsroom/wp-content/uploads/2013/12/GSMA-Mobile-Economy-2013.pdf>
10. Groupe Special Mobile Association Report, 2016; The Mobile Economy India 2016; Available at: https://www.gsma.com/mobileeconomy/wp-content/uploads/2020/03/GSMA_MobileEconomy2020_Global.pdf
11. Kabeer, N. (2011) 'Between Affiliation and Autonomy: Pathways of Women's Empowerment and Gender Justice in Rural Bangladesh', *Development and Change* 42.2
12. Khan J, Khan Z Malik, Amin S (2014), The impact of mobile phones on the performance of university students, MPRA Paper No. 65119, Available at: <http://mpra.ub.uni-muenchen.de/65119/>
13. Lee, D. (2009). The Impact of Mobile Phones on the Status of Women in India. Honors thesis. Department of Economics, Stanford University. Available at: https://economics.stanford.edu/sites/g/files/sbiybj9386/f/publications/lee_d._2009_honors_thesis.pdf
14. National Family Health Survey (NFHS-4) , India 2015-2016, IIPS, Mumbai
15. Radovic-Markovic, M.; Nelson-Porter, B. & Omolaja, M. (2012). "The new alternative women's entrepreneurship education: E-learning and virtual universities" (PDF). *International Women Online Journal of Distance Education*. **1** (2): 46–54. ISSN 2147-0367. Archived (PDF) from the original on 2016-03-05. Retrieved 2015-09-17.
16. Singh SK, Vishwakarma D, Shama SK, Kashyap GC (2018) A Nexus between Diversity in Women's Empowerment and Violation of their Sexual Rights in India: Evidence from National Family Health Surveys. *J Women's Health Care* 7: 430. doi: 10.4172/2167-0420.1000430

17. Waverman, L., Meschi, M. & Fuss, M. (2005). The Impact of Telecoms on Economic Growth in Developing Countries. Caret: TPRC. Retrieved November 06, 2008
 Available: <http://web.si.umich.edu/tprc/papers/2005/450/L%20Waverman-%20Telecoms%20Growth%20in%20Dev.%20Countries.pdf>

Tables

Based on the Primary survey

Table 1.1: District-wise Respondents

District	Percent
Bardhaman	6.7
Darjeeling	2.5
Howrah	10.8
Kolkata	33.3
North 24 Parganas	24.2
South 24 Parganas	22.5

Table 5.1: Use of mobile phone

Background Characteristics		Women having a mobile phone that they themselves use
Age	15-19	25.0
	20-24	51.1
	25-29	56.0
	30-39	53.3
	40-49	41.7
Total age	15-49	45.9
Schooling	No schooling	25.4
	<5 years complete	31.9
	5-7 years complete	41.0
	8-9 years complete	42.6
	10-11 years complete	52.9
	12 or more years of complete	74.7

Table 5.3; Reasons for having a mobile phone

Item No	Reasons	Rank in order of Preference (%)								Total
		1	2	3	4	5	6	7	8	
1	For emergency and Personal Safety	75.8	21.7	0.0	0.0	0.0	0.0	0.0	2.5	100
2	Everyone I know had one	0.0	0.0	5.8	0.0	8.3	16.7	30.0	39.2	100
3	To keep in touch with friends and other social contacts	0.0	11.7	31.7	33.3	16.7	0.0	0.0	6.7	100
4	To keep in touch with parents	9.2	51.7	17.5	8.3	0	7.5	0	5.8	100

5	For business reasons	0.0	0.0	0.0	5.8	15.8	9.2	35.8	33.3	100
6	For information access (phone numbers, internet, email, sports scores, etc)	10.0	15.0	33.3	26.7	6.7	2.5	5.8	0.0	100
7	It offers good value	0.0	0.0	2.5	6.7	25.0	21.7	27.5	16.7	100
8	Privacy	5.0	0.0	9.2	19.2	25.0	33.3	2.5	5.8	100

Table 5.5; Cost of Mobile Handset

Caste	<Rs.10000	10000-20000	>20000	Total
Gen	40.70%	52.70%	6.60%	100.00%
SC	44.80%	31.00%	24.10%	100.00%

Table 5.6; Opinion on ‘Social media are good for Society’

Scale	Percent
Strongly Disagree	0
Disagree	0
Neutral	51.7
Agree	34.2
Strongly Agree	14.2
Total	100.0