INTERNATIONAL JOURNAL OF ADVANCE RESEARCH, IDEAS AND INNOVATIONS IN TECHNOLOGY

ISSN: 2454-132X
Impact Factor: 6.078

(Volume 9, Issue 1 - V9I1-1168)
Available online at: https://www.ijariit.com

Influence of ICT on women's empowerment

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ABSTRACT

In a developing nation such as India, ICTs (Information and Communication Technologies) are emerging as an effective instrument for women's empowerment. New possibilities for information sharing and knowledge acquisition for both men and women have been made possible by the development of ICTs. The ICT revolution has created challenges and issues in addition to new opportunities for economic and social progress. All facets of society are being affected by its ability to shape and enhance a broad variety of developmental apps in the agricultural, industrial, and social sectors. The growth of people is given special chances through ICT. ICT was expanding inequalities between nations, regions, gender, rich-poor, and elite disregarded also among the several categories of females in different realms of activity. Simultaneously, ICT was enlarging gaps between and within rural-urban, rich-poor, and gender. Building up the skills of women is essential if they are to be included in productive endeavors, institutional development, family and social change, political representation, decision-making, trade & commerce, entrepreneurship development, and social leadership. There is a need to increase the odds of women owning, running, and controlling enterprises in all industries, especially service-based IT firms. Additionally, there is a requirement to expand their employment opportunities in e-related fields, rather than limiting them to call centers, telecentres, data entry-level jobs, and lower levels in organizations, and to higher managerial and technical positions in government & non-government organizations, research, and educational institutions. ICT must address all of these issues affecting women as a whole and be utilized to help create a society where women are empowered.

Keywords: *Entrepreneur, E-Governance, Women Empowerment, ICT*

1. INTRODUCTION

Countries all across the world have acknowledged ICT as a powerful instrument for boosting economic activity, facilitating effective government, and growing human resources. A greater number of people are becoming aware of the more advanced and varied opportunities that contemporary technology offers society. Unprecedented changes in how people engage socially, do business and communicate have been brought about by IT and communication technology. Numerous ways in which people's lives are improved and made more pleasant through the development of new types of technology and creative uses of both new and ancient technologies. The ability of ICTs to access, share, and apply knowledge and information to almost every element of human involvement is leading to an increased understanding of their potential to power the emerging, worldwide knowledge-based economy[1]. Working practices may be reshaped, reorganized, and restructured by ICTs. In support of the particular reasons for which they are utilized, they provide general benefits such as increased productivity and efficiency; information exchange, storage, and communication; quicker knowledge acquisition, distribution, and application Additionally, they allow for new forms of teamwork that make it possible to share commercial, financial, and political data quickly and continuously—all of which are essential to the growth process. ICTs have the potential to significantly advance gender equality and the political, economic, as well as social empowerment of women. In underdeveloped nations, among the obstacles preventing access to the ICT infrastructure are poverty, illiteracy, a lack of computer literacy as well as language hurdles. These issues are particularly severe for women. However, barriers that go beyond concerns with technical infrastructure and the socioeconomic setting restrict women's access to ICTs. Women's roles and relationships, which are socially and culturally formed, continue to have a cross-cutting function in determining how well men and women may engage on an equal footing. As per World Bank (2008), one of the essential components of reducing poverty and promoting sustainable development is empowerment. Therefore, it is crucial to provide women the capacity to transform their life by allowing their contribution to society, which will eradicate or significantly reduce poverty.

Technology encompasses not only electronic information-processing tools like computers and the internet, but also rapidly developing communications tools (like radio and television), networking, Phytochemistry and Pharmacognosy and data processing capabilities, and the software for utilizing these tools. It also includes mobile phones, fixed-line telecommunications, and other wireless communications, networks, and broadband. It also comprises CD-ROM ("Compact Disc-Read Only Memory"), compact disc-read-only memory, and decision support systems. ICT is a potent instrument for directing & expressing our creativity and makes it possible for us to acquire whatever information we need [2]. ICTs are increasingly important as a growth driver for the global economy. They may make it possible for many entrepreneurial people, businesses, and communities throughout the world to tackle societal and economic problems more creatively and effectively. ICTs and the Internet provide a plethora of fresh, unheard-of prospects for human empowerment. The gender gap affects people of all social classes and financial levels, making it one of the most fundamental disparities to be exacerbated by the digital revolution. Indian working women make up a significant portion of the rural and unorganized sectors. The fundamental reason for women's under-mobilization to encourage social engagement is inequality in their access to and involvement in the communications system[3]. Internet use in India reflects the country's gender imbalance. Despite the fact that more individuals are using the internet in the nation and the government wants all 1.25 billion residents to have access to it, studies have revealed that males use the internet significantly more often than women do.

2. LITERATURE REVIEW

Qureshi, Ahmed, and Azra Batool (2017) used demographic factors as independent variables and females' economic empowerment as a dependent variable to study the effects of demographic characteristics on women's economic empowerment in the setting of Pakistan. In Pakistan's district of Multan, 500 married women between the ages of 21 to 49 were easily chosen as a sample[16]. To evaluate the demographic influences, ordered probability regression was used. Finally, it is determined that without investigating the elements that influence women's economic empowerment, we would not be able to improve it.

Bera (2016) examined "Women Empowerment Through Education" in the context of INDIA. Women's empowerment was the dependent variable, while education was the independent variable. Data from 2011 to 2013 was used. Finally, it is understood that education helps women gain economic stability, social standing, self-confidence, bravery, and inner strength to confront problems in life, as well as lessen inequality and exploitation towards them[17].

Nwosu (2014) uses women's empowerment as a dependent variable and hospitality education as an independent variable to investigate the role of hospitality education in Nigeria. The survey method was used in this research, which has a modest sample size (300) as well as a subsequent number of respondents (80). The article demonstrates the strong correlation between educational level, career type, and the range of earnings for those with a degree in hospitality[18].

Okonowicz and Lechman (2013) examined whether are women important for economic development. In 83 different nations throughout the globe, women who are given free access to educational facilities enhance their knowledge, skills, and capacities, increase their chances of finding employment, and utilize available funds to launch their enterprises. In the empirical section, we draw on cross-country panel data for 83 economies from the "International Monetary Fund's World Economic Outlook" Data, which was created in April 2013. The period covered is 1990–2011[19].

Khan (2013) used the OLS method to investigate how reducing poverty may empower women in the context of the UK. The dependent variable is women's empowerment, while the independent variable is reducing poverty. Finally, this study discovered that although lowering poverty raises women's status at home, it does not enhance their quality of life since women continue to face violence and exploitation at work[20].

Bussry and Tariq (2012) studied the educational empowerment of women in Pakistan. Women's empowerment is a dependent variable and education is an independent variable. The information used for this objective was gathered using a closed-ended questionnaire. A five-point scale was created to measure the experts' perceptions, and their replies were assessed using chi-square and 2-way ANOVA. The main finding was that KPK residents strongly disagree with the measures being implemented regarding the educational empowerment of women.

Beena and Mathur (2012) used ICT education as the independent variable and women's empowerment as the dependent variable to investigate the link between the two in the context of INDIA. The sample size for the study was 30 instructors as well as 200 trainees from various governmental and non-governmental organizations in the Jaipur district. The sample for the research was selected by a random sampling procedure. This study concludes that information & communication technologies empower women in a variety of domains, including political, psychological, personal, educational, social, technical, and economic.

Duflo (2011) analyzed women's empowerment and economic growth in the context of the United States. Evidence from the period between 1992 and 2012 suggests a positive correlation between economic growth and women's empowerment. On the one hand, development may play a substantial role in decreasing inequality between men and women, while on the other, empowering women may promote economic growth[22].

3. ROLE OF ICT IN WOMEN'S EMPOWERMENT

It is a widely accepted belief that women use ICTs less often than males do. Women must have equal access to the benefits that information and communication technologies, as well as the goods and methods, that result from their usage, have to offer. The advantages that result from the fusion of knowledge and ICT must be openly available to all groups of women, not only those in the highest strata of society. The range of areas in which ICT can give women more power is broad and is growing, from village-level water distribution to running in local elections and having access to opportunities for lifelong learning. ICT, when combined with other communication methods, can reach women who, up until now, have not been reached by any other medium, enabling them to take part in social and economic advancement and make well-informed decisions about problems that directly impact them.

Women at all levels are utilizing ICTs to advance their goals and fuel their desire for a better future. The importance of women's participation in ICTs for many types of development is becoming more and more clear. However, it is a widely held belief that

women use ICTs less often than males do. ICTs are for everyone, and women must have equal access to the benefits that the technologies, as well as the goods and methods that result from their application, have to offer. In their research, Huyer and Hafkin[2] discovered that there is minimal connection between a country's internet penetration and the proportion of female internet users. Growth cannot occur without women's full involvement in the knowledge society. On the other hand, if women don't participate, the development will be slowed and communities' families would suffer. The availability of ICTs has made it possible for women to pursue education remotely and online. ICT usage will still have a limited effect in areas where women have little to no access to financing, transportation, or other development-related resources. Users of ICTs need to have certain specific abilities, thus it's erroneous to believe that just because facilities are available, everyone in the neighborhood would adopt the technology right away. Numerous studies have shown the advantages for women's families and communities when they have access to educational opportunities. Women will continue to be excluded from numerous prospects for social and economic leadership because they lack access to computers, the internet, and technical training. Women who acquire the necessary skills are better able to utilize ICT to expand their job options and support local development. The World Bank's 2012 "World Development Report" and UNCTAD's 2011 Information Economy Report both show how giving women access to ICT tools like mobile phones may improve their quality of life and spur broader economic development. In South Asia, a male is 37 percent more likely to have access to a mobile phone than a woman, despite the fact that mobile phones appear to be everywhere. This gender difference in access to mobile technology is particularly pronounced in South Asia.

Figure 1: Role of ICT in Women's Empowerment

➢ **Information and Women Empowerment**

Information is power. Those who lack access to knowledge and are consequently less informed are helpless. Women fall into this group because they have limited access to knowledge on numerous topics due to cultural, social, economic, and geographic factors. Women's limited access to information is mostly caused by illiteracy, a lack of quality education, and outdated technology. Women and men who cannot read lose a lot of knowledge that is accessible via print media and books. In India, more than 50% of women are illiterate, which makes it difficult for them to learn about different topics that affect their daily life. Two significant realizations have evolved as a result of extensive study, many surveys, and the accumulated experience of executing a range of social development programs recently. The first is that there is no incentive to send females to school since the existing educational system is, in many respects, obsolete. The second, which has to be emphasized, is that women, whether or not they are literate, have a pressing need for awareness via the distribution of knowledge. Misguided traditions have been established as a result of inadequate knowledge. Education is unquestionably a critical need in afflicted communities. Only the use of ICT to empower people can solve issues of this kind. The removal of all forms of prejudice against women is a prerequisite for gender equality, and the use of communication technology may hasten the process of equality via gender sensitization. Information may be spread via the use of communication technology, which will then inspire, mobilize, and inspire action. With women acting as change agents, communication technology may include a variety of techniques, including participatory, catalytic, and welfare approaches. Information may encourage women to choose healthier lives when it is supported by success stories. For example, information on vaccination, infant and maternal mortality, sanitation, nutritional knowledge, and illness causes, as well as disease prevention and treatment, may be widely communicated using communication technology.

➢ **Empowerment Through E-Governance**

ICT is a potent instrument for enhancing democracy, strengthening government, and empowering citizens. By fostering citizen-government contact, reviving civic institutions and public discourse, fostering fairness and equality, and empowering minorities, it may aid in the creation of a speedier, more transparent government. It may be especially effective in giving solitary and invisible women a voice. Many countries have recently prioritized e-governance, which has led to the establishment of ICT-based programs that supply government services and encourage openness and accountability. The direct engagement of women, which was formerly restricted to representative forms of participation in which they were underrepresented, is now possible because of these new models of governance. In the local government domains of a process, e-governance would result in a more participatory and proactive form of communication with authorities, increasing the openness and accountability of their acts. Since the technologies may function at any moment and from any place, the concepts of distance and time would be useless. Additionally, it implies that rural women, who already struggle with time constraints and find it impossible to travel long distances to public offices, will be able to use new technologies to jump to a completely different platform where they can express their opinions and get in touch with the appropriate party. Realizing the significance of IT, the Indian government established a distinct Ministry of Information Technology to advance IT throughout the nation. There are examples of initiatives to improve gender equality and reduce poverty using ICTs. In India, the government is receiving assistance from UNDP (United Nations Development Programmes) via pilot projects that combine e-service delivery, local government, rural livelihoods, and women's empowerment. By providing online access to information such as property records and many other government services for low-income women and men, these pilot projects seek to increase the speed, convenience, and effectiveness of public service delivery.

Figure 2: Empowerment Through E-Governance

➢ **Empowerment Through Entrepreneurship:**

The rapidly changing ICT environment is giving female company owners new chances to grow and improve their enterprises. Women entrepreneurs are connecting with clients and expanding their enterprises in ways they were unable to accomplish in the past thanks to mobile phones, electronic networks & platforms, radio, television, blogs, and the internet. ICTs are currently being used effectively to assist women entrepreneurs in developed and developing nations to overcome many obstacles. In addition, institutional and structural obstacles, legal gender disparities, sociocultural norms and practices, and institutional and structural biases often undermine the potential of female entrepreneurs. Due to their various responsibilities, these obstacles may limit women's physical mobility, access to education, skills, and training, financial access, and time availability. Some of these can be addressed with the aid of ICTs, and the ICT industry itself offers commercial prospects. Electronic commerce is one of ICT's most potent uses in the field of knowledge networking (E-commerce). Women manufacturers and traders may bypass intermediaries, as well as male-dominated and exploitative market systems, by connecting directly to marketplaces at the national, regional, and even global levels via e-commerce efforts. ICTs are employed in underdeveloped nations to accomplish initiatives by the UN, World Bank, government, corporate, and private sectors, via the millennium development objectives and local and international programs, in APC addition to creating new employment for women. For instance, the African Women's Network of the ("Association for Progressive Communication") has performed training and workshops to help electronic networking among women's groups. The India Shop, an e-commerce site in Tamil Nadu, offers products made by rural women's cooperatives & NGOs. The DHAN Foundation "Swayam Krishi Sangam" is using ICTs, like mobile phones and smart cards, to enhance microfinance initiatives aimed at empowering underprivileged women. There are many ICT initiatives for women run by the SEWA ("Self-Employed Women's Association"), such as community learning centers and a school of science & technology for independent women.

Figure 3: Empowerment Through Entrepreneurship

➢ **Empowerment Through Employment:**

The notion of work and the workplace have changed significantly as a result of ICT. With the development of new technology, it is now possible to work remotely in new fields of employment like teleportation. Due to technology, women now hold a significant part of the positions that large corporations outsource. As a result, women may work whenever they choose, from anywhere, and earn additional money to increase their financial independence and sense of empowerment. There are now many more chances for women to work in new fields of employment including telemarketing and medical transcription. These positions are undoubtedly low-paid and in the bottom tier of ICT occupations, but they are creating opportunities where none previously existed. Another expanding employment trend that has given women new chances is teleworking, which allows them to do their jobs remotely utilizing ICTs. The job prospects in IT services favor women disproportionately in India and the Philippines, where they make up around 30% and 65% of professional and technical employees, respectively. Compared to other service sectors, both have greater participation rates (World Bank 2009). There are also signs that women's involvement in the ICT sector of the Indian economy has increased their ability to earn money and negotiate with their families. In IT firms based in distant cities, more women are employed. This has had the threefold impact of improving their social skills, empowering them to make decisions, and upending power dynamics.

Figure 4: Empowerment Through Employment

4. ICT CONTRIBUTION TO GENDER EQUALITY

The following ICT channels might help advance gender equality:

➢ **ICTs as platforms for women's opinions and voices:** ICTs may offer venues for varied, inexpensive, bottom-up communication. They may make women's voices heard and promote the experiences and viewpoints of women. To achieve gender equity, mainstream venues must be injected with fresh worldviews that are informed by women's personal experiences and that question, qualify, or broaden preconceived notions.

➢ **dissemination of women's rights-based information:** Advocates for gender equality have utilized new ICTs to spread knowledge based on rights all across the globe. Actors at various levels are involved in creating, compiling, and disseminating information on rights, including legal rights, reproductive and sexual rights, and women's human rights. Examples of these actors include multilateral organizations like UN Women and feminism activists at the local level. Websites, electronic periodicals, and email are used for this.

➢ **Building women's capacity:** To increase girls' and women's access to and use of modern ICTs, many organizations are improving their capabilities. Women in business, women company owners and women in the professions get systematic assistance to help them develop their abilities, advance their careers, and become more effective in their roles. Girls and women get comprehensive training in ICTs for careers in the field.

5. CONCLUSIONS

People may now interact, network, and cooperate on a larger global scale than was before conceivable because of new technology. Alliances between the local and the international have been formed. The Internet has provided men and women with a place where they may express themselves and form friendships while still maintaining their anonymity. ICTs have made it easier for the elderly, the handicapped, and others who are discriminated against to communicate, network, and influence policymakers. The Internet has given sexual minorities, in particular, a subversive space to claim their identity and advocate for their human rights. Women's groups

may use networking to rally global public opinion against unfair and discriminatory practices at the local level. Every aspect of our life is being altered by the ICT revolution. It is transforming our home, work, and leisure activities at an ever-increasing pace. In addition to increasing our businesses' productivity and generating money materially, technology's accessibility and relative affordability also provide each of us access to what is now our most valuable resource: knowledge. A knowledge economy has emerged as a result of the technological revolution in ICTs, but developing nations' incapacity to fully profit from this revolution is a major obstacle to their involvement in it. Over the years, a key issue of women empowerment projects has been the transmission of knowledge via education and training. The potential for supporting and enhancing education and training for development is enormous because of recent advancements in ICT. The potential influence of ICTs on knowledge growth is highest in rural regions due to the unique barriers to education and training. It is becoming increasingly interactive, participatory, demand-driven, and open, and involves two-way information exchanges in addition to bargaining. Getting knowledge and giving rural poor women the ability to ask for information relevant to their requirements for a living are now priorities. The inherent miscommunication between technology developers and development organizations tends to limit current discussions on the potential contribution of ICTs to rural development. In turn, many development organizations have failed to successfully mainstream methods to fully use the potential of ICTs. Most developing nations' rural regions are a long way from being included in "global knowledge collaborations." By promoting better knowledge sharing and information interchange, ICTs can alleviate both of these obstacles to rural development through women's empowerment. However, understanding the potential of these technologies and the social, political, and cultural settings in which they may be employed is essential for their effective implementation. Instead, the emphasis of this article has been on the many ways that ICT may empower women as well as the possibility for more strategic applications of new ICTs to the problems that they are now confronting. Initiatives for women's empowerment may benefit from the potential contribution of ICTs.

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