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AN ANALYSIS UPON THE CONTRIBUTION OF INFORMATION AND COMMUNICATION TECHNOLOGY FOR ENHANCEMENT OF WOMEN EMPOWERMENT IN INDIA: A REVIEW

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An Analysis upon the Contribution of Information and Communication Technology for Enhancement of Women Empowerment in India: A Review

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Abstract – Women empowerment is an essential tool to bring about changes in their socio-economic condition. Through their empowerment women gain greater share of control over resources-material, human and intellectual such as knowledge, information, ideas and financial resources involving access to money and control over decision making in the home, community, society and nation. The world is in the midst of a knowledge revolution, complemented by opening up of entirely new vistas in communication technologies. Recent developments in the fields of information and communication technology are indeed revolutionary in nature.

Information has become the chief determinant of the progress of nations, communities and individual. There is potential for ICTs to eliminate gender inequality and to empower women in society. There is growing body of evidence on the benefits of ICT for women's empowerment, through increasing their access to health, nutrition, education and other human development opportunities, such as political participation.

Information and Communication Technologies are diverse set of technical tools and resources to create, disseminate, store, brings value addition and manages information. The ICT sector consists of segments as diverse as telecommunications, television and radio broadcasting, computer hardware, software and services and electronic media, for example, the internet and electronic mail.

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INTRODUCTION

Women's empowerment is focused on increasing their power to take control over decisions that shape their lives, including in relation to access to resources, participation in decision-making and control over distribution of benefits. For women who can access and use them, ICT offer potential, especially in term of reducing poverty, improving governance, overcoming isolation, and providing a voice.

The world Summit on the Information Society (WSIS), held in 2003 in Geneva, saw ICTs as vital tools for women's empowerment: "We are committed to ensuring that the Information Society enables women's empowerment and their full participation on the basis of equality in all spheres of society and in all decision-making processes. To this end, we should mainstream a gender equality perspective and use ICTs as a tool to that end".

Information and communication technologies can be powerful tools for advancing economic and social development through the formation of new sorts of economic activity, employment openings, improvements in health-care delivery and other services, and the augmentation of networking, participation and advocacy within society.

While the potential of ICT for encouraging economic growth, socioeconomic development and effective governance is well recognized, the paybacks of ICT have been unevenly disseminated within and between countries.

Poverty, illiteracy, lack of computer literacy and language barriers are among the factors impeding access to ICT infrastructure, especially in developing countries. Another hindrance pertains to ICT is lack of its access to women. Information and Communication Technology (ICT) has become a potent force in transforming social, economic, and political life globally. Without its incorporation into the information

age, there is little chance for countries or regions to develop. More and more concern is being shown about the impact of those left on the other side of the digital divide the division between the information "haves" and "have-nots." Most women within developing countries are in the deepest part of the divide further removed from the information age than the men whose poverty they share. However, it is not a choice between one and the other. ICT can be an important tool in meeting women's basic needs and can provide the access to resources to lead women out of poverty.

Women work two thirds of the world's total working hours spending mainly on growing food, cooking, raising children, caring for the elderly, maintaining a house, hauling water, etc., which is universally accorded low status and without pay.

The promotion of micro and small-scale enterprises (MSEs) has been recognized as an important strategy for advancing the economic empowerment of women while reducing poverty and gender inequality. Small businesses are engines of growth and considered a backbone for economic expansion by many Governments. At the household level, women's microenterprises and small subsistence businesses play a crucial role in ensuring the survival of poor households, and in building up women's confidence, skills and socioeconomic status with social benefits accruing to the community and future generations. Many institutional and regional players promote them as part of a developmental strategy to create jobs in developing countries, generate employment opportunities for the poor in rural areas and populations unreached by the formal economy, and to drive innovation.

Women entrepreneurs are offered new opportunities by ICTs to start and grow businesses. Through new as well as traditional forms of ICTs, women entrepreneurs are reaching out to customers, becoming more efficient and building their businesses in ways they could not do before.

ICTs are rapidly changing the global landscape, serving as a potent force for shaping and impacting the way people live, work and communicate. They are becoming a necessary tool for running a competitive business. The range of potential benefits ICTs offer is extensive, including better access to crucial information in areas such as business development, market and pricing information, production technologies, compliance, forecasts and training. Affordable access
to ICTs can also enable entrepreneurs to communicate better along the value chain as well as make their administration more efficient. With the trend toward information and services increasingly becoming digital based in both the public and private sector, entrepreneurs without access to this technology have a clear disadvantage.

Across the globe, countries have recognized Information and Communication Technology (ICT) as an effective tool in catalyzing the economic activity in efficient governance, and in developing human resources. There is a growing recognition of the newer and wider possibilities that technology presents before the society in the modern times. IT together with Communication Technologies has brought about unprecedented changes in the way people communicate; conduct business, pleasure and social interaction. The evolution of new forms of technologies and imaginative forms of applications of the new and older technologies makes the lives of the people better and more comfortable in several ways. There is even greater realization that instead of a single-track technology, lateral integration of technologies can deliver startling results and the world seems to be moving towards such converged systems. With the emergence of IT on the national agenda and the announcement of ICT policies by various state governments have recognized the "Convergence of core technologies and E-Governance" as the tool for good governance, sustainable development, globalization of economy and social empowerment. Information is the key to democracy. With the advent of ICT, it has become possible for the common man to access global information. The realm of electronic communication encompasses telecommunication, broadcasting, information technology, enabled services and industries, to undergo profound changes leading to a Global Information Infrastructure (GII), which will be capable of carrying any type of information, be it text, data, voice or video. Information is now broadly defined to embrace voice in telephony, text in fax and newspapers, images in video and television broadcasting, and data in computers. All information can be digitized, transported, stored, retrieved, modified, and then distributed. All of these are getting transportable over common infrastructure viz. high-speed, broadcast, digital electronic highways. Emerging digital techniques, new network alternatives (Intelligent Networks), high bandwidth communication technology, and state-of-the-art software for network functions and services, are the new technology trends evident in the development of electronic communication systems.

The convergence of Information and Communication Technology (ICT) involve not only the integration of carriage and content but also of the industry. In such convergence, instances of conflicting interests might surface and it may trigger a competition and end up with the survival of the fittest industries and of sustainable applications. It may also be realised that converged applications have a lot of bearing on e-governance, which, people perceive as means to 'good governance'.

WOMEN AND ICT

A large group of workingwomen of India is in the rural and unorganized sectors. Socially the majorities

of Indian women are still tradition bound and are in a disadvantageous position. Inequality in women's access to and participation in all communications systems, especially the media, and their insufficient mobilization to promote women's contribution to society.

Since globalisation is opening up the Indian economy suddenly at a very high speed, during the past decades, advances in information technology have facilitated a global communications network that transcends national boundaries and has an impact on public policy, private attitudes and behaviour, especially of children and young adults. Everywhere the potential exists for the media to make a far greater contribution to the advancement of women.

More women are involved in careers in the communications sector, but few have attained positions at the decision-making level or serve on governing boards and bodies that influence media policy. The lack of gender sensitivity in the media is evidenced by the failure to eliminate the gender-based stereotyping that can be found in public and private local, national and international media organizations.

The continued projection of negative and degrading images of women in media communications - electronic, print, visual and audio - must be changed. Print and electronic media in most countries do not provide a balanced picture of women's diverse lives and contributions to society in a changing world. In addition, violent and degrading or pornographic media products [are also negatively affecting] women and their participation in society. Programming that reinforces women's traditional roles can be equally limiting. The worldwide trend towards consumerism has created a climate in which advertisements and commercial messages often portray women primarily as consumers and target girls and women of all ages inappropriately.

ICT- WOMEN EMPOWERMENT

Despite the numerous challenges to equity in the ICT arena, many social actors have exploited ICTs as tools for social transformation and gender equality. Women artisans are directly accessing global markets through e-commerce initiatives and are using the Internet to support their activities with market and production information. E-governance programmes have been initiated using ICTs for delivering government services; in some cases with an explicit strategy to ensure these services reach women and others who face barriers to access. Health educators have used the radio to communicate information related to women's sexual and reproductive health.

Email, online newsletters and List Serves have enabled women to communicate on a global scale, resulting in increased collaboration to push the agenda of gender equality. New technologies do offer remarkable advantages in terms of ease of communication, unprecedented possibilities for interaction, and efficiency in information storage and retrieval; however they are not universally available. New initiatives have been most effective where they go beyond issues of access and infrastructure to consider the larger social context and power relations.

Knowledge acquisition - In today's developing environment usage of Information Technology has become a day-to-day activity which has exposed women to the new technologies, and hence are not difficult to be trained on them. It is observed that women in general have good concentration power owing to their nature of work, and hence are easily trained to acquire any new skills. As the women at lower strata are constrained to the homes, if we can get the technology to the women at home we will be sure to succeed in empowering them. NGO's and Government departments have to plan training programs, to provide the required skills and establish groups for the follow up action.

Knowledge Networking System-women - Women stand to benefit tremendously from the inroads laid by ICT in the domain of knowledge networking. The pertinent question is not whether they stand to benefit but how do they benefit and what are the mechanisms to ensure that the benefits accrued to the women community do not remain restricted to mere trickle-down effects? At the very conceptual level, ICT have the potential to digitally link each and every woman in the world in a star topology network, which opens up endless possibilities for information exchange. This mechanism could be used by women in creative ways, both to communicate with other people who are online, and also to disseminate information to people in the outside world who are not online through the use of convergence and hybrid technologies such as community emails, community radio broadcast, tele-centres, newsletters, videos etc. This mechanism forms the skeletal process through which women communities could overcome the constraints of seclusion, mobilise resources and support, reach out new markets, and open up avenues for life-long learning. We could broadly classify the spaces in which women stand to gain under the spheres of Empowerment and Governance. This condition forms the basis of evolution of women as equal contributors and end-users of knowledge in a knowledge society. NGO's and the Government bodies have to come forward to setup and build a hierarchical network comprising of social groups which are successful in a venture from the village level to the state level. The success stories should be circulated to emulate them. Training groups have to be built up from these groups to percolate the knowledge to the different levels.

Impact on women's work - Information and communication technologies are both enabling as well as a contributing factors to globalization. Information and communication technologies made global financial markets possible. Examining the issue of the impact of information technology on women's work in the context of globalization underlines the differences in the issues of information technology and women's work between developed and developing countries. In developed countries, most of the literature on the impact of information technology on gender and work deals with the association of men with technology and power.

In developing countries, women are looking at the issue not only in terms of gender relations with the men in their society, but also at Western dominance over innovation and as the source of technology. Some argue that the new technologies are not appropriate for women because they are imported.

However, this position seems to be head-in-the-sand. Information technology is no more foreign than air travel or electricity. The technologies are there and will not be displaced. It is more appropriate and effective for women to devise ways of dealing with them to improve the situation of women than to reject them for being foreign. As with globalization generally, the impact of information technology on women's work through globalization has been most evident in Asia first, than in Latin America and the Caribbean. Africa is effectively absent from this process.

LITERATURE REVIEW

The explosion of ownership and ever-increasing performance capabilities of personal computers, mobile phones and other information communication technology (ICT) devices, the development of satellite, cable and other networks, as well as increased bandwidth, have spawned new forms of distribution through which media and entertainment products and services are made available. The restructuring of the media and entertainment industries and their inclusion in a trend towards an integrated information industry is driven to a large extent by these major developments in technology, for which the term convergence is widely used. *(Media Perspektive* 1999) This convergence is based on technological innovations in microelectronics, computers and telecommunications. Through digitalization, all kinds of data -- irrespective of origin can be manipulated and integrated on the basis of their common informational structure. In addition, the development of optical fibre and satellite technology has created the possibility for rapid transmission of increasing amounts of information per second. The development of integrated circuits and the exponentially increasing capacity of microchips have also been crucial for data communication and integrating different kinds of electronic communication.

The computer and the modem, along with many other ICT hardware and software innovations and services, have placed us at a highpoint of a very significant stage of development in the history of human communications, often called "the information society", and have transformed the way many men and women work in the media and entertainment industries. The foundations of the information superhighway were laid years ago, because its base is the whole system of television, radio, cable, satellites and computer networks, microwave, wireless digital, telephone systems, cellular and mobile radio networks and other systems that transmit information, data, audiovisual material and communications. Every day people receive, store, process, display and send a variety of texts, sound and images, including films, television and radio programmes across the country and around the world. A major challenge is to integrate these diverse and disparate elements into a high-speed, interactive, broadband, digital, seamless whole to complete the highway, ensuring that it reaches all parts of the world where it is needed, and is made available to as many people as possible.

Kelkar and Nathan (2002) have argued that ITs have the potential to ―redefined traditional gender roles‖ and that ―the spread of IT-enabled services has been immensely beneficial to both women and men, especially those who have limited skills or lack of resources to invest in higher education.

Sunil Agarwal (2003) has underlined the role of appropriate technology to develop women entrepreneurs by building local capacity to improve quality of work life. The author firmly believes that understanding behind the processes/products will inculcate a scientific temper among women, which will improve their production efficiency and reduce their drudgery in their day-to-day work. Further, the author has stated that there is need to use science and technology to ease the workload of women inside and outside the house. Furthermore, he recognised the role of knowledge and experience of women in sustainable development. These would facilitate them to function as equal partners in development.

An ITU study (2005) describes ICTs as potentially powerful ―development enablers: They are cost-effective with significant transformative power, allow developing countries to leapfrog several stages of the development process and, in furnishing individuals directly with tools for self-empowerment, avoid top-heavy and corrupt bureaucracies.

Chowdhury (2006) in his article “Empowering Rural Women through Science and Technology” has pointed out that to develop women oriented technologies for empowerment, the women specific jobs and their perspectives have to be identified. The author presents the following principles for developing technologies for rural women: (a) to reduce the drudgery in the life of women; (b) to provide employment opportunities to women; (c) to improve sanitation and environmental conditions; (d) to improve the health and nutritional status of

women; and (e) to protect women from hazards. The author argues that there is an urgent need to recognize women as the technology makers and as technology users. The main contention is to liberate science and technology from its elite structure and reintegrate rural women in a more equitable development process.

Mary Cherian (2006)has critically examined the global policy and process initiatives of NGOs, the Government and the Corporate Houses in empowering women through ICT. The study is based on the

case studies of women in countries like India, Bangladesh, Guyana, Africa, Zimbabwe, Uganda who gained tremendously by increased accessibility to internet connectivity. The author has suggested some strategies to overcome barriers to use and assess to ICT for women with special reference to India which includes: (a) taking issue of women empowerment through ICT as a priority issue, (b) necessity of a rights-based approach to ICT policy, (c) Adopting of ICT policy which fit to the needs of women i.e. ICTs should be made more "women friendly", (d) Addressing language options in the centre of policy decisions, and (e) providing of incentives for the enrollment of girls in ICT programs.

Roman Kumar and Rajesh Kochher (2011) have illustrated the effective usage of technology for small-scale industries, which are promoted by women under self-employment scheme. The authors have found that the IT based micro-enterprises by the self-help groups of poor women have helped the demystification of the common man that a few elite ones in the society are the only beneficiaries of the powerful IT. They have begun to consider IT as a tool for attaining knowledge and development by everyone. Further, the author opines that the strategy to encourage the participation of the poor women in the digital revolution is expected to reduce the gap in digital and gender divide. The authors have concluded that the economic empowerment of women via IT enables them to challenge discrimination and overcome gender barriers.

PadminiChattu (2013)have highlighted that the role of Mobile Technology in the field of women empowerment. The authors have stated that not only for communication, women are also using the mobile for different ways: to be safe in times of difficulty, as a media connector with current updates in day to day and as an e-learning device to become literate. Further, the authors have recommended that IT can be applied in the empowerment of rural women through imparting virtual classroom education, providing training on Internet and email services, developing a web based information system about the SHG and they can be popularized in papers, magazines and internet, which acts as a motivational factor. Furthermore, the study has recognized that the scaling of women-centered mobile programs and applications can only be achieved with improved financial, commercial, and marketing incentives and of course, cooperation.

METHODOLOGY

While designing methodology the study objectives, as specified in the Research Proposal titled "Contribution of Information And Communication Technology for enhancement of women empowerment In India" were strictly followed. The study has been conducted in Uttar Pradesh.

For the purpose of this study, the areas classified by Census 2001 were selected randomly to identify the women folks as respondents. The total sample size was 500. The women includes: working women, house wife who have exposure in information and communication technology and work as part time, Women employees who work in the area of information technology in government and private organizations, members of self-help group who also has exposure in the field of information technology and communication. The sampling units were selected using stratified random sampling scheme, as it is evident from the methodology.

Secondary Data - The secondary data was collected from the Corporation commissioner's office about the government sponsored schemes for promoting women participation in ICT based services and jobs. The information about different schemes related to ICTs was also collected through personal interviews with planners, implementations and beneficiaries of these programmes.

Primary Data - Besides secondary data, the primary data was collected using structured questionnaire. The questionnaire includes all aspects of socio-economic background of the respondent, their educating, trading, income generation activities, constraints, benefits etc.

After the data collected from the field, it was processed in computer through the use of Statistical Package for Social Science (SPSS), excel and other software packages. These packages are used in order to make the analysis easy and clear. The package also helped the cross tabulation of the data.

CONCLUSION

The majority of women in the developing world do not have access to ICTs due to variety of barriers as such the infrastructural, social, cultural and linguistic. While it may be necessary for the progressive elite to mediate information dissemination, real democratization of information depends on making ICTs relevant to the majority and accessible to every

woman. Today, print media and radio are used extensively by feminist groups for information dissemination. ICTs can strengthen these media strategies. Community access points such as telecentres can be a simple tool for conveying information to women that supports their social and political empowerment.

The gamut areas in which ICT can put a greater control in the hands of women is wide and continuously expanding, from managing water distribution at the village-level to standing for local elections and having access to lifelong learning opportunities. ICT have the potential to reach those women who hitherto have been not been reached by any other media, thereby empowering them to participate in economic progress and make informed decision on issues that affect them.

Information needs of women as well as their ICT use differ widely. However, there is no ideal ICT that fits all situations. Though women are engaged in numerous roles in agriculture, they are keen to have information on other parts, such as child health, nutrition, prevention and cure of common diseases, employment opportunities etc. Those trying to install ICTs for women empowerment should build their strategies grounded on ICT use pattern and varied information needs of rural women. Emerging a dynamic and relevant content for rural women continues to remain as a major challenge. Adequate resources need to be allocated for this activity, if profits from resources invested in connectivity and hardware have to be copiously realized.

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