



EMPOWERMENT THROUGH INFORMATION AND COMMUNICATION TECHNOLOGIES- WOMEN'S PERSPECTIVE IN INDIA

Seied Beniamin Hosseini¹

¹PG Student in MBA, B.N. Bahadur Institute of Management Sciences (BIMS), University of Mysore, Karnataka, India.

Dr. S. J. Manjunath²

²Associate Professor and chairman, B.N. Bahadur Institute of Management Sciences (BIMS), University of Mysore, Karnataka, India.

ABSTRACT

In the present study, the researcher through brief overview of ICT's operation going to discuss about the impact of ICT on the women's life in India. As we know, accessing to ICT can promote sustainable socio-economic development and develop the women's life as a significant portion of the world's population. Technology exists in a social world and when technology is considered under the social context the issues of women become of interest. Because in other words technology can affects women just as women can affects technology. But unfortunately the research and experiences determined that the more men than women have access to ICTs especially in the global south. This paper will explore that the empowerment of women can help to build their capacity to get involved in decision making in better way to effective overcome in era of social, political and economic barriers as well as strengthening them to participate in to the same processes. The researcher will express that the ICTs play very important role in empowerment of weaker segment including women, especially in rural part of India and to promote gender equality. Therefore there is need to recognize the potential of ICTs as a tool for the promotion of gender equality and women empowerment and to understand how women can have more access to participate in ICTs projects and new technologies with the aim of developing their own path.

The present research work will prove that the women should not be considered as passive recipients of information and technology but as developer. And more function of NGOs towards making awareness and clarifying facilities of using this strategy for making a big improvement within women's community and their lives to be needed.

KEYWORDS: Women empowerment, ICT, gender equality, Barriers and Strategies.

INTRODUCTION

In reviewing history, since 1980, there has been a rapid development in information technology. In 1989, the government of India had provided education for women equally in the states of Uttar Pradesh, Karnataka and Gujarat (it has reached nine states in India in the year of 2014). In 1993, other projects as called "Rashtriya

Mahilakosh (RMK) was started. In 2001-2002, another schemes has launched by government of India which called "Swadhar" and its main purpose was to provide primary need for shelter and food and emotionally and financially support of women particularly for those who are living in distress. In 2002-2007, the five years approach

known as “Empowerment of Women” was introduced. Therefore during this time, the biggest challenge of any government is girl and women’s empowerment and contributes them in the mainstream activities through education, funding, participation and involvement to achieve development.

In Indian’s legal scenario the principle of gender equality and women empowerment is enshrined in the preamble of Indian constitution towards fundamental rights, fundamental duties and directive principles. Indian constitution not only grants equality to women, but also empowers the state to react to those measures of discrimination against of women. Moreover, the national commission for women was set up by an act of parliament in 1990 to safeguard the rights and legal entitlements of women. India also has ratified many international conventions and human rights instruments committing to secure the equal rights of women that calling upon member nations to incorporate policies for gender justice and women empowerment like, the Mexico Plan for Action 1975, the Nairobi Forward Looking Strategies 1985, The Beijing Declaration, the Platform for Action 1995 and outcome document adopted by the UNGA session on gender equality and development and peace for the 21st century. ¹ it should be noted, the nongovernmental organizations (NGOs) have strong role on women’s concerns which have contributed to women empowerments. Fortunately, in recent years, the empowerment of women has been recognized as the central issue in determining the status of women.²

there is need to understand the relationship between women and technologies; any technology that is not appropriate for women is not truly technology. Recent experiences shows there are considerable understanding and control using technologies effectively by women. There are many examples which pertinent to point out those women in India have a thirst for knowledge and access to new knowledge such as repairing water pumps and manage computer data for the maintenance of the pump in Himachal Pradesh and so many other similar cases.³ Technology has very important impact on; facilitating women’s productivity, reducing women’s

drudgery, empowering of women because it’s potential is to sweep across political, geographical, social and economic barriers and help women to build a new identity and more honourable place in society but if the technical aspects be more gender sensitive. ⁴

The role of communication technologies and information networks on women empowerment:-

Communication technologies have been used in many number of educational and developmental applications and through ICT the constraints of time and distance becomes manageable especially for women and it had the directive role to encourage the enrolment of girls in these programs. Analyze of UGC shows that the perceived relationship between technology and masculinity is so entrenched that women are excluded from technical education and hence from technical jobs. Therefore there is need to encompass parents and educate them on the debilitating effects of gender bias within the family, society and nation at large⁵. On the other hand, information networks also provide service provisions at national, regional and local levels.⁶

In fact all information networks are powerful tools in disseminating information throughout of India. ⁷ According to Data Quest’s Best Employer Survey 2012, the percentage of women employed in the IT industry in India has actually decreased from 26% in 2010 to 22% in 2012⁸. This statistic shows a larger number of males available for employment than females and therefore a larger proportion of men being employed, but they also show that the number of women employed in the IT sector is not significantly increasing. ICTs effort rapid economic growth through IT and IT- enabled services by providing direct and indirect employment and improving the economic conditions of women through varied networks. There are various IT projects in India such as:

- 1 The IT sector as a big IT companies have women friendly policies with womenfolk’s coming in the workforce of IT sector and encourage women to participate in business operation and taking care of welfare of women’s activities.

Footnotes

¹Y.Pradhasaradhi & V. Nagender Rao, Women Empowerment: Information Technology as a Critical Inpute, Indian Journal of Public Administration, Vol LX, NO. 3, July-September 2014 , p: 517
²Ibid
³ A Report Submitted to Department of Women & Child Development Ministry of HRD Government of India, Enhancing Women Empowerment through Information

Footnotes

and Communication Technology, Voluntary Association For People Service (VAPS), p: 17
⁴ Ibid, P: 15
⁵ Ibid, P: 20
⁶ Ibid, P: 19
⁷ Ibid, P: 19
⁸<http://www.catalyst.org/knowledge/statistical-overview-women-workforce>, accessed on 04/06/2016



- 2 "VAHINI" is another IT giant for women employees and is including 24 to 7 emergency helpline for women. It has 50% women in their workplace and they also provide escort service to their women employees.
- 3 IBM India Pvt. Ltd is the IT industry which is known as fourth largest employers in IT. It has flexible working hours for women extended maternity leaves and etc.
- 4 TEL- NEK is an organization in Bangalore rural and provides computer training to both women and men and its main purpose is to reduce rural to urban migration.
- 5 AKSHAYA, which encourages telecenters that are run by women by offering different services including internet telephony, payment of bills and using the net.
- 6 BPC, Broadening Participation in Computing which is sponsored by United States with the goal of increasing the number of under presented graduate in the computing disciplines with an emphasize on women, persons with disabilities and minorities and many other projects.

What is ICT?

ICTs are defined as a diverse set of technological and an effective tool in growth of economic activities in efficient governance and also human resource development which create, disseminate, store, and bring value addition and manage information. It is a field that connects telecommunication networks with computers which can provides useful application. Information and communication technologies are the best ways to facilitate the empowerment process of women and girls and integrate them in economic, political, technologies and social environment of the world. ICT is not limited to a particular purpose and it enabled its users for the variety of purposes. ICT sector encompasses are included telecommunication, television, radio broadcasting , computer hardware and software and services and electronic media like the internet, mobile telephony and electronic mail which enable users to create, access, store, transmit and manipulate information. ICTs specifically

towards women allow movement of empowering through its usage. The ICT can improve women's status through providing education, information and knowledge, training, occupational opportunities, market information and financial services, information about health agencies and workers⁹ and further it can influence the public opinion about gender equality but in a positive way either by providing a good strategies by including women as an important components or by focusing on improving the lines of women specially in rural areas in health and education.¹⁰

In developing countries, the potential of ICT is dependent upon women's level of technical skill and education. In such countries, the government and the NGOs need to focus more on interventions and raising educational levels among women. Importance of ICT on women empowerment will be discussed profoundly in following parts.

NEED OF ICT IN EMPOWERING WOMEN IN INDIA

Towards women position in India, it is worth mentioning that there is a great disparity in the matter of economic resourcefulness between a man and a woman. Indian society is male subjugated both economically and socially and women are always dispensed with dependant role. Thus, the national consensus and Indian government must focus more on women and empowering them.¹¹

Empowerment is a multi-dimensional social process that helps people gain control over their own lives¹². Women empowerment generally refers to the process by which women improve their power to take control over decisions on their lives, including, accessing to resources, participating in decision making and controlling over distribution of benefits.

United National Development Found for Women (UNIFEM) defined the term women empowerment as;

- 1- Acquiring knowledge and understanding of gender- relations and the ways in which these relations may be changed.
- 2- Developing a sense of self worth
- 3- Gaining the ability to generate choices to exercise bargaining power.
- 4- Developing the ability to organize and influence the directions of social change, to create a more

Footnotes

⁹ Dr, Praveen Mustoor and Dr, Seema Singh Zokarkar, Empowerment of Women and Girls in ICT, Pub; Balayi Institute of Telecom and Management, Pune

¹⁰ Samidha Redkar and Spoothi Kumar, Role of ICT in Gender Equality in India; Final T4ID Projects, p; 3

Footnotes

¹¹ Dr. Mini Amit Arrawatia, Mr. Pankaj Meel , Information and Communication Technologies & Woman Empowerment in India, International Journal of Advanced Research in Computer Engineering & Technology (IJARCET) Volume 1, Issue 8, October 2012, p:2

¹² <http://www.nmsolar.org/Pages/Empowerment.aspx> accessed on 04/06/2016

just social and economic order, nationally and internationally.

Under UNPOPIN'S report on 2010, Women's empowerment has five components: women's sense of self-worth; their right to have and to determine choices; their right to have access to opportunities and resources; their right to have the power to control their own lives, both within and outside the home; and their ability to influence the direction of social change to create a more just social and economic order, nationally and internationally.

¹³Although there are three types of women empowerment ; first women Economic empowerment when they are supported to engage in a productive activity that allows them some degree of autonomy. Second is women Social empowerment that is a process of acquiring information, knowledge and skills; and supporting participation of women in social organizations without any gender discrimination and lastly is women Political empowerment which helps women to enhance their power of voice and collective action by women and ensures equitable representation of women in decision-making structures, both formal and informal, and strengthen their voice in the formulation of policies affecting their societies.

The world Summit on the Information Society (WSIS), held in 2013 in Geneva, saw ICTs as vital tools for women's empowerment which states; "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 gender equality perspective and use ICTs as a tool to that end". ¹⁴

ICTs bring lot of opportunities to women in the work situations and small business. There are many possibilities for ICTs to improve women's economic activities in the field of trade, governance, education, health crafts and employment in formal as well as informal sector. Women have to be an equal beneficiary to the advantages offered by the technology and the products and process which emerge from their use.

In Indian context; the urban as well as rural Indian women has been using the benefits of these programs, however in reaching to best empowerment of women there is still a long way to go. India as a developing

country, enabling technologies to empower women could be a turning point in country's progress if applied it properly. But the type of use of this information varies among women. For example the urban educated women need information mainly for research, career advancement facilities, fashion and market values, art and entertainment and legal rights and provisions and the urban middle class women needs information for inexpensive educational facilities, inexpensive health and child care , legal rights and provisions against social injustice or domestic violence and dowry system and etc. Moreover the poor urban women who are affected by globalization may need information to find job opportunities in informal sector, housing availability, access to governmental protected programs for poor people and legal provisions against sexual harassment, domestic violence and etc.¹⁵

In fact rural areas often lack of lag behind urban areas in terms of essential infrastructures and services. It creates inequality of services and opportunities for rural population and prevents them from fully participation in socio- economic and political life of nation. Considering the status of rural population related to ICT is very important when they have assigned 70% of population in India.¹⁶ Toward rural women, who are usually from the upper castes, their needs are akin to that of the urban elite women excepting. In fact they often are passive viewers in the changing socioeconomic scenario because they are bound by the upper caste traditions where patriarchy rules supreme. The rural educated middle class women are more interest to change. They are in the process of breaking the caste and class barriers and are working towards better education and economic independence. They are in urgent need of information regarding to Educational opportunities outside the village, job opportunities in both formal and informal sectors, health services including sexual reproductive health, modern child care facilities and legal provisions to counter sexual harassment, domestic violence and social injustice.

Towards rural poor women who are marginalized we must say they have never been specially considered for information dissemination. Information system specially must be designed for the rural poor because this group has been worst affected by the process of

Footnotes

¹³ Rasheed Sulaiman V. , N.J, Kakiyani, ICTs and Empowerment of Indian Rural Women; What Can We Learn From On- Going Initiatives?, Pub: Center for Research on Innovative and Science Policy, Hyderabad, March 2011, P:4

¹⁴ Dr. Manohar K. Sanap , Role of Information and Communication Technology in the Women Empowerment, Chronicle of the Neville Wadia Institute of Management Studies & Research, ISSN : 2230-9667

Footnotes

¹⁵ A Report Submitted to Department of Women & Child Development Ministry of HRD Government of India, Enhancing Women Empowerment through Information and Communication Technology, Voluntary Association For People Service (VAPS), P: 26

¹⁶ Open Learners as a Tool to Promote Gender Equality in Rural India, A Journal on Rural Development , Vol:6, No:3 January 2011, p:3

globalization and accessing to information help them to encompass their economic, social and familial roles.¹⁷

Unfortunately, in 2011 literacy rate in compared with men was 65%, it was 82% for women. Furthermore according to the census data, around 160 million Indian women rather than productivity employed in formal sectors stay at homes and remained confined to household duties in 2014. Therefore as P. Sharma Abhilasha Sankari¹⁸ reached in her studying on women empowerment, the awareness and knowledge of new ICTs and their profits and consequences can have important role on women empowerment ICT helps spread awareness and gave women the ability to raise voice and many issues. There are several organizations which they are working on women empowerment such as:

- 1- Network Rural Women and Knowledge (NABANNA), which has launched for empowerment of poor women through establishing networks of information sharing among the low income and poor women of India.
- 2- Sanjeevani Vikas Evam Jan Kalgan Samiti which has founded in 2000 and it works for women empowerment and rural development in India.
- 3- SEWA, Women's Association for Self Employed which has founded for self employed poor women worker through creating employment opportunities for large group of working women in the rural and unorganized sector in India. These women suffer from inequality in accessing to and participating in all communication system especially the media and their insufficient mobilization to promote women's contribution to society. They believe that poor women's growth, development and employment happens when they have work, food and income security.
- 4- UNDP projects in various countries especially Asian and African and Latin American nations which applied ICTs on agriculture and farm management to support women farmers for becoming successful entrepreneurs in a new market economy.¹⁹
- 5- IKUPPAM, it is the part of HPs initiatives to expose ICT to citizens of developing countries through creating self-sustainable economic communities.

Through this project, citizens can browse the internet for job opportunities, gain access to markets, learning computer programs which they are helpful for their business and participating in language training program.²⁰ Toward women, HP i- community had implemented the HP village photographers program that women are given solar powered portable camera equipment and asked to photograph life in Kuppam as they see it. During the first nine months, 5000 photographs had captured by women and made around Rs:15000 per month revenues. It was very easy technology to use. And it was successful because of its market approach to international development and inclusion of the public sector in.

- 6- Datamation Foundation, this is a nonprofit organization that is focused on meeting the millenarian development goals by employing ICT in the rural parts of India. Its first target is women who are economically distressed communities and the youth of India. It uses ICT to sensitize people against the practice of female feticide, the act of aborting a fetus after receiving knowledge of its female sex. Because this type of abortion created a disparity in the male-female sex ratio in many parts of the country. It provides recent information towards laws in the country in attempting to change the mindset of people about the female child. It organizes the website where citizens can report doctors, nurses and lab orations who are involved in female feticide in any way.²¹
- 7- Kudumbashree in Kerela, this project includes three components, first micro credit second entrepreneurship and last empowerment. It has launched on 1999 and its main purpose is to empower poor women has been studied extensively by sociologists, administrators and policy makers for possible replications in other parts of the country. It is an innovative women based participatory program with the active support of National Bank of Agriculture and

Footnotes

¹⁷ A Report Submitted to Department of Women & Child Development Ministry of HRD Government of India, Enhancing Women Empowerment through Information and Communication Technology, Voluntary Association For People Service (VAPS), P: 27

¹⁸ P. Sharma Abhilasha Sankari. Information and Communication Technology (ICT): A Game Changer in Women's Empowerment, pub: International Journal of Scientific Research in Multidisciplinary Studies, August 2015

Footnotes

¹⁹ Y. Pradhasaradhi & V. Nagender Rao, Women Empowerment: Information Technology as a Critical Input, Indian Journal of Public Administration, Vol. LX, NO. 3, July-September 2014, p: 516

²⁰ Samidha Redkar and Spoothi Kumar, Role of ICT in gender Equality in India; Final T4ID projects, p; 7

²¹ Ibid, p; 8-9

Rural Development for the eradication of poverty through concerted comity action and identification of poor women.

- 8- UNESCO's Nabanna Experiment in West Bengal, Nabanna came into operation in early 2003 with the support of UNESCO. The target group for this local ICT initiative was rural women. The aim is to have a web-based information system among poor rural women, governments, private sector and research institutes. The project's first purpose focused on computer training and the second is revolved around building communication models that will allow even the uneducated access to ICT contents.
- 9- Indira Kranthi Patham in Andhra Pradesh is a statewide poverty reduction project to enable the rural poor to improve their livelihoods and quality of life through their own organizations. The focus is on deepening the process, providing an institutional structure and developing a framework for sustaining it for comprehensive poverty eradication. It is the single largest poverty reduction project in South Asia.²²

Also there are many Empowerment measures adopted by government in India towards women empowerment which are including;

- 1- Creating new jobs towards information processing for baking, insurance, painting especially for women and so many possibilities for improving women's economic activities through trade, education, health and employment in formal as well as informal sectors.
- 2- Existence the "Inter- City Marketing Networks for Women Micro- Entre Pruners through Cell Phone" which has launched by Foundation Of Occupation Development (FOOD) in Tamil Nadu in promoting Inter- City direct sales of product made by them.
- 3- Computer education as "Learning Aid" for the learners at upper primary school level. Under this program 610 schools have been provided computers and 1512 teachers have been oriented²³and many other projects.

Therefore there are particular policy framework for gender equality and women empowerment through ICT as a powerful tool which bridges the gaps of gender digital divided. ICT by increasing educational opportunities, ensuring gender perspectives in ICT based projects, distance learning programs, transferring adequate and sustainable technology for female and designing technologies appropriate for women's need under their social and cultural context of the society tends to perpetuate gender disparities.²⁴

EXISTENCE GAPS AND CHALLENGES IN WOMEN EMPOWERMENT THROUGH ICT

Unfortunately there are so many factors that create hurdles in empowerment of women under following discuss like;

- 1- Poverty: most of the people in India are poor, they think ICT is a source of entertainment which they cannot afford, whereas there are 37% of people who are living below poverty line, empowering is very difficult task for such a huge number.
- 2- Knowledge gap and illiteracy, the one resource that liberates people from poverty and empowers women is knowledge and in this issue the empowerment of women become more significant. Illiteracy which leads to unawareness of their rights in constitution is lack of self-confidence. Education makes difference in the lives of women and increases the economic, social and political opportunities available to women. A literacy rate in India is 66% and the illiteracy rate of females above the age of 7 years is 45%. Though the government is offering free education to the girl child, the Indian scenario is pretty grim as far is education to womenfolk is concerned. Towards computer literacy, the urban Indian enjoys the basic computer education but the rural Indian are depend on government support.
- 3- Socio- cultural barriers; in India under its social structures, the boys are given more opportunities over girls for everything even education and

Footnotes

²²Srinivasan, Girija, "Microfinance India: The Social Performance Report" 2013, Sage Publications, p.128, 2013.

²³ Dr, Praveen Mustoor, Empowerment of Women and Girls in ICT

²⁴ Garima Mishra & Dr. U.V. Kiran, Role of ICT in Aachieving Complete Gender Equality in India, Pub: International Journal of Technical Research and Applications, Vol;3, Issue;3, May-June 2015, p; 187-188

- access to ICT and in many parts of India, this type of special training is considered as “Taboo” for women. As we know information is known as power but unfortunately women fall into powerless category because accessing to information on many matters is restricted because of cultural, social, economic and geographic reasons. Consequently also accessing to ICT for women is reduced.
- 4- Early marriage; though the government has imposed a rule of marriage after the age of 18 years for female, the practice of early marriage still rampant is around 50% in India. Therefore in this situation the married girl has so many family responsibilities and she can't find any time to await the facilities of ICT and the television remains the only means of information.
 - 5- Language barriers; language is the main constraints in the empowerment process and importing knowledge through a few common language is a big challenge. The major hurdle is that most of the education is training through English language and if they are trained through this language is very difficult. And also around 70% to 80% of the websites are in English. Therefore the primary reason for women's poor access to the information is language barriers because print media and books in English language are lost to women who cannot understand and read English.²⁵
 - 6- Ownership; Compared to men, rural women are less likely to own communication assets, such as a radio or mobile phone assets and this is a reality for women and girls because of poverty and meager income levels as well as social structures which has given boys most of the preference. Rural women are less likely to allocate their income to use in public communication facilities, except when they need to communicate with family or to arrange for income transfers. Rural women are often reluctant to visit “cyber cafes” or public internet centers, which are often owned by men and visited by men. The café culture often excludes girls and women from frequenting them.²⁶

7- And because of this Spending patterns which has given preference to boys over girls, the boys are known as bread earners in the family and girls are known as the home maker.²⁷

8- Legal gaps; However there are a wide legal regime in India towards gender equality and women empowerment and there are so many policy makers have taken many initiatives like the National Mission for Empowerment of Women (NMEW) or the Government Of India (GOI) since 2010, still there is a clear gap between the goals enunciated in the constitution, legislation and policies and the real situation of the women's status in India. There are various type of gender inequality in practice and the access of lower cast women or minorities to information and technologies are inadequate.²⁸

CONCLUSION

ICT can make more impacts on amplifying women's voices and publicizing experiences which can be open doors in changing the global scenario. On the other hand, ICT by itself cannot be an answer to all the problems related to gender inequality and women empowerment, women would need access to other sources of support and services. Gender equality and women empowerment aims to enhance women's participation in the digital economy and can increase national capacity and achieve greater economic independence and development.

Therefore the ICT needs more strategies towards equitable access to this technology and produce the information relevant to their concerns and perspectives are critical issues for women. It is very importance to engage women and gender advocates in the policymaking process of ICT to ensure that women, particularly rural and poor women, benefits from ICT. Further there is need to promote the enrollment of girls in ICT programs by providing incentives such as scholarships and awareness raising activities and Language access must be addressed as a serious barrier to gender equity on the international ICT policy level. Moreover ICT policy and technology must be adopted to fit the needs of women which can be encouraged women to think and act in terms of the first premise then we will ensure that ICTs become more “women friendly” in terms of cost, access, applicability in different fields.

Footnotes

²⁴ A Report Submitted to Department of Women & Child Development Ministry of HRD Government of India, Enhancing Women Empowerment through Information and communication Technology, Voluntary Association For People Service (VAPS), p: 14

²⁵ FAO, IFAD, World Bank, 2008

²⁶ Dr. Praveen Mustoor, Empowerment of Women and Girls in ICT

²⁷ Y. Pradhasaradhi & V. Nagender Rao, Women Empowerment: Information Technology as a Critical Impute, Indian Journal of Public Administration, Vol. LX, NO. 3, July-September 2011 , p: 518

²⁸ Y. Pradhasaradhi & V. Nagender Rao, Women Empowerment: Information Technology as a Critical Impute, Indian Journal of Public Administration, Vol. LX, NO. 3, July-September 2011 , p: 518

Moreover, NGOs and the government should come together to make programmes popular through women centric initiatives and be more sensitized about rural areas and make various designs for each and all rural ICT networks under their social, economic and political outfit. Therefore fruitful community networking, the design and implementation of projects should be driven by the explicit needs of communities. More efforts are also needed for enhancing the capacities of rural communities, especially rural women to access ICTs and to fully understand the developmental and empowerment implications of ICTs, further research is required.

REFERENCES

1. *A Report Submitted to Department of Women & Child Development Ministry of HRD Government of India, Enhancing Women Empowerment through Information and Communication Technology, Voluntary Association For People Service (VAPS).*
2. *Dr. Manohar K. Sanap, Role of Information and Communication Technology in the Women Empowerment, Chronicle of the Neville Wadia Institute of Management Studies & Research, ISSN: 2230-9667.*
3. *Dr. Mini Amit Arrawatia, Mr. Pankaj Meel, Information and Communication Technologies & Woman Empowerment in India, International Journal of Advanced Research in Computer Engineering & Technology (IJARCET) Volume 1, Issue 8, October 2012.*
4. *FAO, IFAD, World Bank, 2008*
5. *Open Learners as a Tool to Promote Gender Equality in Rural India, A Journal on Rural Development , Vol;6, No;3 January 2011*
6. *Y. Pradhasaradhi & V. Nagender Rao, Women Empowerment: Information Technology as a Critical Impute, Indian Journal of Public Administration, Vol. LX, NO. 3, July-September 2014.*
7. *Dr, Praveen Mustoor and Dr, Seema Singh Zokarkar, Empowerment of Women and Girls in ICT, Pub; Balayi Institute of Telecom and Management, Pune.*
8. *Dr, Praveen Mustoor, Empowerment of Women and Girls in ICT*
9. *Rasheed Sulaiman V. , N.J, Kalaivani, ICTs and Empowerment of Indian Rural Women; What Can We Learn From On- Going Initiatives?, Pub: Center for Research on Innovative and Science Policy, Hyderabad, March 2011.*
10. *Samidha Redkar and Spoothi Kumar, Role of ICT in Gender Equality in India; Final T4ID Projects.*
11. *P. Sharma Abhilasha Sankari. Information and Communication Technology(ICT): A Game Changer in Women's Empowerment, pub: International Journal of Scientific Research in Multidisciplinary Studies, August 2015.*
12. *Srinivasan, Girija, "Microfinance India: The Social Performance Report" 2013, Sage Publications, 2013.*