

# ROLE OF INFORMATION TECHNOLOGY IN WOMEN EMPOWERMENT

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**Abstract** - This article explores how information Technology can be springboard to attain gender equality and empowerment in India. India is stepping into 21<sup>st</sup> century with a bold mission to join the group of economic superpowers. It can boast of knowledge based society and planning to use its demographic dividend to emulate the growth model of developed nations. Indian growth basket is unique in a sense that it directly made transition into Service based economy. India is world leader in Information Technology and ITES services. However, Gender equality poses serious threat to India's future ambition. The Dismal figure of Gender Inequality Index (GII) of Human development report and growing women violence in society shows the inequality in society. For developed society, equal endowment of women on social, economic is sine quonon. India can use potential of Information Technology to enable women to ladder of power and freedom in economic as well as social sphere. Recent initiative of Digital India Mission (NeGP 2.0) to transform India into digital empowered society and knowledge economy can be helpful to create gender just society. Information Technology has multiple enablers – it can create ecosystem for equal participation I economic space as evident from sprawling IT and BPOs in metropolitan cities; it can provide unique tool of public service delivery to remotest places like Cash transfer schemes, access to Micro-financing institution.

Opportunities (Mexico), Bolsa familia (Brazil) become beacon of IT enabled services for gender empowerment and poverty removal. It can even be a bulwark of women safety like recently launch Himmat Mobile Apps. Mobile revolution has increased the accessibility of public service delivery to distant lands. M-Pesa creates virtual banking space for remote and poor people of Kenya. ICT is changing the global landscape impacting the way people live, think, work and communicate. The range of ICT is extensive including better access to information, technology, Forecasting, training and education. IT Ecosystem provides barrier free avenue for women entrepreneurship. Sheryl Sandberg of Facebook and Virginia Marie Rometty of IBM have reached the highest echelon of software companies. For Indian perspective, IT provides unique opportunity to reduce

gender disparity in varies space like educational, health, safety, economic space etc. This article discusses how IT can be a vital enabler for gender Empowerment and Equality.

**Keyword-** Women empowerment, gender equality, entrepreneurship, microfinance, e-governance

“I am no bird; and no net ensnares me: I am a free human being with an independent will.”

-Charlotte Brontë, Jane Eyre

## I. INTRODUCTION

Empowerment is the process of enabling individual to think, decide, and take action and work in an autonomous way. One can gain control of one's destiny and circumstances of one's life. As per the United National Development Fund for women (UNIFEM), the term women's empowerment means:

- aspire gender parity in social and economic space
- Self-belief and controls in one's decision making and actions
- Developing the ability to become agent of household, social change of existing gender biased order

The necessary condition for women empowerment can be different depending on social and economic milieu. For rural women, participation in social network, relevance in society, freedom of movement, leadership in rural institutions, control on family formation decisions and assets are key precondition. Whereas an Urban women sense her empowerment in availability in labour market, economic and educations space. Irrespective of Social base, the fundamental facet of women empowerment are – accumulation of endowment(health, education and physical asset),

use of those endowment to take up economic opportunity and generate income and finally using those endowment to take action to become agent affecting individual and societal well-being.

## II. STATUS OF WOMEN EMPOWERMENT IN INDIA

The condition of women in India is more miserable than the rest of the world in almost every field of social life. In rural landscape, the women participation in labour force is on increase due to migration of male counterpart to cities for informal job. Women are kind of unpaid agriculture labourer in her field. In Societal enablers, they have no control of child decisions and in their mobility. They have to bear the burden of early pregnancy, childbirth which compounds their limitation of future growth.

In Urban Economic space, Women is still on the less favourable condition. The lower gender percentage in higher education is manifested in higher jobs in urban corporations. Various labours laws limits their participation in manufacturing enterprises by imposing archaic time limits and shop floor conditions. Growing Urban violence further limits women's mobility in cities causing contraction in women participation.

In all key endowments like education, health, financial areas, gender gap is still very large. Various Stakeholders have role to play to leverage ICT tools to bridge this gap.

## III. ROLE OF IT IN WOMEN EMPOWERMENT

Employment and Corporate Bodies:

Every second recruit entering the \$60 billion Indian IT industry is a woman. Currently, Infosys employs the largest percentage of women at 33.4%, followed by TCS 30% and Wipro 29%. The major players in IT industry are now offering an environment that will retain the talented women workforce. To develop women friendly work environment leading companies are now offering benefits like lactation centers, extra maternity leave, work from home policies, crèches, and option to relocate to city of their choice in case of transfer of the husband. IBM has also launched a diversity drive in the campuses specially to attract women in their

workforce. In IBM the percentage of women has climbed up to 26. IT and ITES provide unique ecosystem for equal participation in labor force. This trends should be strengthened by increasing the women ratio in higher education and vocational education.

## IV. ROLE OF GOVERNMENT

The Public Service delivery is increasingly based on ICT tools worldwide. In all social sectors, worldwide trends are observed. Social schemes like poverty alleviation schemes and health related schemes are delivered by tagging them with ICT. Bolsa familia in Brazil is creating waves in society by not only reduction in poverty, but also empowering women to take lead in household decision like in child health, nutrition and immunization. Similar schemes are observed in Mexico where Cash Transfer scheme like Opportunities have helped in women empowerment. India can take cue from these initiatives and use its build-in strength like AADHAR numbers and virtual banking for effective service delivery and reach in society. Similarly, in Health Sector Mobile penetration can help to provide better RCH services (Reproductive health services). One such example is MCTS – Mother Child Tracking system, where the regular immunization is ensured by tracking and informing the mother by SMS.

Similarly various ICT based services are working for better public service Delivery. Gynadoot project is one such example when village has access to various records and information from single computer service center. Distributing Free Tablets Aakash to schoolchildren has enabled them to be computer aware. One laptop per child program has already shown its success worldwide. Moreover, the virtual classrooms and open educations are penetrating in society by use of ICT. MOOCS (Massing Open online courses) are changing the paradigm of education delivery. Women can surpass immobility in physical space to take part opportunity in these virtual sphere and enable them with adequate knowledge and skill.

M.S.Research Project in Pondicherry is providing internet connectivity to create information villages. The project has developed a “hub and spokes” distribution model where

Web-based data is downloaded in a community with an Internet connection and subsequently relayed through a local voice/data network to community Village Knowledge Centre's (VKCs) in six nearby villages. Datamation foundation in collaboration with the UNESCO has set up a community media centre in a madrasa in extremely backward Seelampur-Zaffrabad in New Delhi. Current Digital India Initiative provide opportunity for women empowerment. It has following pillars:

- Broadband Highways,
- Universal Access to Mobile Connectivity,
- Public Internet Access Programme,
- e-Governance: Reforming Government through Technology,
- e-Kranti - Electronic Delivery of Services,
- Information for All,
- Electronics Manufacturing,
- IT for Jobs
- Early Harvest Programmes.

#### V. ROLE OF PRIVATE SECTOR

Project Shakti launched by Hindustan Unilever promotes internet penetration among rural women. This project now provides services to 134000 villages, across 14 states and has developed 46000 women entrepreneurs. The Internet awareness are increased by Project Shiksha of Microsoft and Internet Bus of Google. E-choupal initiative of ITC has reached 41,000 villages covering 5 million farmers through 6600 kiosks.

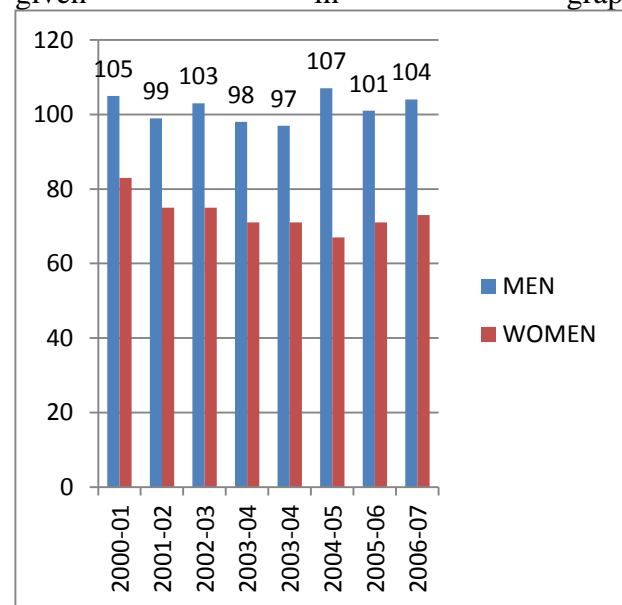
NASSCOM: National Association of Software and Service Companies provide mentoring and empowering women managers across junior, middle and senior level from the IT Industry all the way through various activities concern to training, workshop and all others.

India Shop, an e-commerce website in Tamilnadu, has been designed to sell rural women's cooperatives and NGO's. Swayam Krishi Sangam (SKS) is using ICT's such as smart cards and hand held devices to improve microfinance projects to empower poor women.

NABANNA: Networking Rural Women and Knowledge, a UNESCO sponsored project in NABANNA, India was launched to empower women through use of intranet portals,

databases, and web based applications. Through this network women share local original information and information obtained at group meetings and newsletter. Women have more respect in their local community. Younger women were more confident to move toward job market. Women became more creative after learning programs like paintbrush. Women developed a sense of unity among them and bringing forth leadership qualities.

Employment opportunities in the ICT sector: Women create friendly environment for women employment. The gender distribution of employment in ICT manufacturing sector is given in graph.

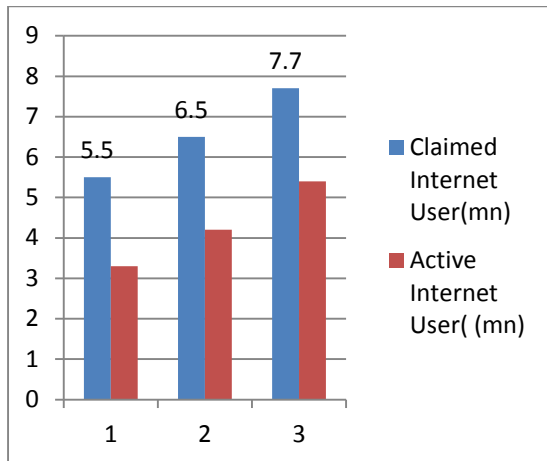


Source: Ministry of Statistics and Programme Implementation

#### VI. INCREASING INTERNET PENETRATION IN RURAL INDIA

Survey done by Internet and Mobile Association of India in 2009 reveals that there are 6.7 million claimed internet users, 4.19 million active internet users. The graph shows the growth rate of internet penetration in rural India. Claimed internet users are those who claim to have accessed the medium at least once at some point in time. Active users, pegged at 52 million, are those who access the medium at least once a month.

#### INTERNET DISPERSION IN RURAL AREA



## VII. INTERNET AND MOBILE ASSOCIATION OF INDIA

### ROLE OF NGO'S

The IT seminars organized by Savitri Marketing Institution for Ladies Empowerment (SMILE) in collaboration with IT companies. SWIFT JYOTI programme has been launched by NIIT for IT education of women. This is the computer literacy programme designed to provide education to females from 6 years to 60 years. SWIFT JYOTI programme provides functional literacy on the one hand and benefits women in seeking and receiving information useful in their daily life. The duration of SWIFT JYOTI programme is 18 hours. SEWA (Self Employed Women's Association) has launched IT programme to increase efficiency of rural micro enterprises.

Ujjas Innovation: It is an initiative to empower women by bringing out their own newsletter called "Ujjas". The newsletter went on air on All India Radio Bhuj Station in Gujarat. The newsletter provides a medium to express views against female infanticide, dowry, and other relevant issues.

### VIII. CHALLENGES

The Women employees have to face challenges of long work hours, constant travelling and juggling different time zones of international clients, Social issues on account of working during night. Due to this the industry is losing women employees at the middle and senior management level. Women employees count less than 4% in top management of Infosys. In a

study conducted to assess the status of women in technical education and employment in Karnataka state by Sequeira A.H. (2005) self employment among degree and diploma holders was as low as 2% of the total number of pass outs. The great challenge in India is the IT technology and internet connectivity in the distant villages. To capitalize on the opportunities for women empowerment provided by Information Technology it is important to increase internet connectivity in remote villages. These are the other challenges:

- Less support for women working in informal sector.
- Less awareness of ICT for women.
- Lack of e-commerce infrastructure in developing countries.
- Proper knowledge of English language.
- Male dominated set up of Indian society.
- Low Internet penetration among women: A meager 7% non-working women & 8% working women of India uses Internet, which is very low as compared to other advanced & developing economies.
- Conservative mindset for working women.
- Balancing career and family.

### OPPORTUNITIES

NASSCOM estimates that the male: female ratio in IT industry has improved from 72:24 in 2005 to 72:32 now. IT reduces the impact of barriers of time and distance in organizing and managing the service delivery of businesses. A large part of jobs outsourced are going to women. The freedom to work from anywhere and anytime can become a catalyst for financial independence and empowerment of women by enhancing their extra income. A women entrepreneurship cell should be set up to handle the various problems of women entrepreneurs in all states at the college level.

### PROMOTING WOMEN

#### ENTREPRENEURSHIP IN IT

With just six employees at beginning Sharda Ramani's Computer International as now a new avatar of outsourced produced development company of 150 employees.

Extensio software of Sangeeta Patni with just 10 employees builds software even for MNC's like

SAP, IBM & ACC among others.

A start-up by Rakhee Nagpal Dynamic Vertical Solutions (DVS), an ERP solution provider for retail and hospitality industry in 2006, having important clients as D'damas, Lilliput, Devyani Group among others. Anu Lall, CEO of SNARTAK IT Solutions set up the business with a mere Rs.11000. Major corporate like Siemens, Satyam, Ranbaxy, Apollo Tires and others are their clients now.

These women are the shining beacon of women entrepreneurship for their contemporaries & posterity. Apart from entrepreneurship other opportunities are:

- Choice of flexi timing & work place.
- Amiable working condition in IT companies.
- Better facilities for women to distance learning.
- Knowledge of various things through e-governance initiatives of government.
- Better market access for micro enterprises through e-commerce.
- Regulatory support by government to help microfinance and mobile banking for women empowerment.

#### STRENGTHS

Abilities to learn quickly, their persuasiveness, open style of problem solving, willingness to take risk and challenges, motivating capacity, knowing how to win and lose ambivalently are the qualities that gild Indian women personality.

#### ROLE MODELS

Women who have achieved commanding position in the industry will inspire more women to follow their footsteps. Managing Director of HP India, Neelam Dhawan has nationwide responsibility for business profit and ensuring the greatest influence from different services of HP. She ensured the company's overall business prospects and heading its strategy and corporate development pursuits to make HP the most respected company in India activities that entails overseas activities, BPO sector, software Engineering and Research and other IT Services, Chandra Prabhakar, Vice President-On Demand Solutions, Ramco Systems has a force multiplier in the areas related to mainframe, client server, and e-commerce. Kalyani Narayanan, CEO of

Allfon Systems was able to independently manage large critical applications. She designed developed and deployed applications at the tender age of 22. Dr. M. Revathy Sriram, Director of M/s Tejas Brainware Systems (P) Ltd, has 40 years of IT experience. Mrs. Sumitra Seshan is COO of Fifth Generation Technologies India Ltd. Sudha Jagadish, COO of Dax Networks: She had excelled in service, purchase, credit control and HR, and the major departments of the organization. COO of Thales Group India, Pamela Ramalingam, has vast experience of working in leading US, UK and Indian companies. Sadhana Somasekar, Joint M.D Future Focus Infotech is the global head for the organization's business operations and also the founder chairman of Platinum Info systems. The founder of VP Delivery Gayatri Viswanathan, has vast experience of software development, project management and solutions delivery.

#### IX. CONCLUSION

Breaking old traditional norms, women are showing their real potential and mental strength. They have infinite opportunities in this global arena. They share equal partnership in every business, government activities and jobs. Some age-old traditional barriers and societal attitudes must be removed for their upliftment. They have to demand for their rights and should be ready to take their fight of equity and honour to next level.

As the industry is cognizant of women's role in ICT industry, there is a sea change to attract women employees. Balancing act of family and job related issues are making a dent in MMG and SMG level women in various companies. This can be a blessing in disguise as they can use their skill, knowledge and experience to become a successful entrepreneurs.

Top level women employees are setting examples for younger generation. They have to walk a tightrope and make a fine balancing act to excel in their carrier in IT related fields. Above all they must get their share of support from their near and dear ones including family and colleagues.

**As Margaret Sanger said:**

*"Woman must not accept; she must challenge."*

*She must not be awed by that which has been built up around her; she must reverence that woman in her which struggles for expression”*

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