DIGITAL TECHNOLOGY AND WOMEN EMPOWERMENT: EMPLOYMENT DIMENSIONS IN INDIA

Ranjana Agarwal[•]

Introduction

Digital technology has revolutionized the world as never before. Rapid transformations have taken place in the global scenario. The contribution of Information and communication technology has been significant in terms of income and earnings, growth and employment generation. India too, has witnessed an unprecedented growth in the field of IT. The presence of world class educational institutes in the country have led to creation of a large pool of trained manpower of international standards. The IT industry is expected to emerge as one of the largest employers in the country (Ninth 5 yr plan). This sector is expected to grow to grow to $87 billion by 2008. A Nasscom Mckinsey study predicts that software and services will be a third of India's exports, over 7.5 percent of GDP growth, $5 billion in FDI and create 2.2 million jobs by 2008).

A prominent feature of the IT sector is the growth of IT enabled services. There has been recent growth in IT enabled service businesses in India as call centres, medical transcription, technical support and back office processing, engineering and design, geographic information services, payroll and other human resource services, insurance claim processing, legal databases. Business Process Outsourcing has tremendous potential for growth. The turnover of the call centres was $ 65 million in 1999-00 which increased to more than $ 3 billion by March 2004 and more than $ 10 billion by 2006. IT-enabled services have grown at a rate of 65 per cent. Foreign companies dominate India's call centre industry, with a 60 per cent share of the annual Rs 71bn ($1.5bn) turnover market. This sector is expected to provide employment to more than 1million by 2008.

The IT sector has not only created a large number of jobs, but has also resulted in new types of challenging careers. In the IT sector, emphasis is on intellectual rather than physical resources. As emphasis is on knowledge, the IT industry is considered to be non-discriminating. It is considered to be an equal opportunity employer for men and women, minorities and handicapped all alike.

Workforce trends show that a large number of women are joining the ICT sector. What is the position of women in newly emerging areas of information technology? Has ICT provided suitable employment opportunities to women leading to women empowerment? This paper aims to examine these issues. The main objective of this paper is to examine the different ways in which in IT has benefited women in terms of employment. The paper also examines the effects of IT in rural areas.

Section 2 deals with employment profile of women in IT. Section 3 deals with different ways in which IT has benefitted women. Section 4 concludes the paper by suggestions to be undertaken to ensure greater participation of women in IT.

[•] Dr. Ranjana Agarwal is currently working as Assistant Professor at Rai University

Section 2 : The Indian IT industry and women employment

As per Nasscom estimates, women comprise 20 – 25% of total number of science and engineering graduates in the country. The number of software professionals has been rising continuously over the years. The number of software professionals increased from 6800 in 1985 to 650,000 in 2003-2004 (Nasscom, 2004). Women are joining the IT sector and their numbers are fast increasing.

In 1993, only 10% of workforce was women. In 1998, 18% of IT workforce was women which was higher than the national average of 12%. In 2003, the proportion increased to 21%. The participation of women in IT is rapidly growing and is expected to go up to 35% in 2005. Hence, women are now occupying a prominent position in the labour force.

Women are employed in IT companies located mainly in cities as Bangalore, Poona, Chennai, Delhi, Hyderabad and Bombay. More women are employed are employed in Southern regions of the country, where hiring of professionals was 41 percent as compared to Eastern region at 6 percent (Nasscom 2003). The women employed in IT belong to the younger age group. The overall median age of software professionals was about 25.6 years. 44 percent of software professionals possessed over 3 years of work experience (Nasscom 2003).

There are several employment opportunities in IT for young women who have had education and training in urban, English medium schools. The IT enabled services centres offer several opportunities to women. The IT enabled services require excellent verbal communication skills and pleasing personality. Data entry/data conversion needs typing conversion and strong written English communication skills. Medical transcription requires a good understanding of medical terminology, ability to understand English with different accents and good typing speed. Entry-level salaries range from Rs.3,000-10,000 a month. After four to five years of experience, medical transcriptionists can look forward to Rs.14,000-20,000 a month. The same is true for other jobs in this field. The age of entry is between 19-24 years. The minimum qualifications required is class 12. Call centres prefer women as they feel that women are better suited to voice-based projects.

A large number of women are joining the IT enabled services sector (Ramani, S. 2000). A large number of companies as GE, American Express, Standard Chartered Bank, CitiBank, British Airways, Microsoft, AOL time Warner, HP, Dell Computers, Prudential Insurance, Morgan Stanley, Mark & Spencer have call centres where a sizeable number of women are employed ranging from 35 to 65% (www.express it people.com). GE capital had 40 to 55% women employees in their various centres (Sandhya Sule, 2002). A study of an international call centre at Pune (Dutta, 2003) showed that 59% of employees were women.

Due to IT, women have employment options as flexitiming and work at home concept. Tele-tech India, a joint venture BPO company between Tele-tech and the Bharti

Group, gives its employees a choice of four-day weeks instead of the normal five, hourly rates with a minimum number of work hours in a week. There are incentives for housewives and other part-time workers for 30-hour weeks.

Mumbai-based Datamatics Technologies, a BPO which processes data, women to work from home, 20 hours a week. This facilitates employment for married women, especially with small children. The employee strength is over 800 part-time workers as compared to only 500 permanent employees.

Tracmail, a Mumbai-based business process outsourcing (BPO) company employs 2,000 people of which roughly 45 per cent of them are women who work 8.5-hour shifts, attending calls from clients across the world. A BPO company, Infowavz International, has one third of its 800 employees as women. 24X7 Customer Service, a company based in Bangalore employs women in large numbers where the share of women employees increased from 25 per cent to 40 per cent in the last two years.

ICICI OneSource, a company based in Mumbai has 2,400 employees, of which 60 per cent are women, in the age group of 22 to 27 years. There are more women employees in call centres in north and western India.

Section 3 Benefits of digital technology

Apart from direct employment, ICT has benefited women in a number of ways. It is a viable tool of information and communication which goes a long way in empowerment of women. Immense amount of information is obtained through the internet. The number of IT users as well as IT professionals have been increasing over the years. The number of Internet users have been rising over the years. It was estimated that there were .01 million internet users in 1995 which increased to 18 million Internet users in March 2003 and their number was expected to increase upto 23 million in Dec 2003. Internet usage was most widespread in 18-24 yrs age group. Men constituted 77% of users while women users were around 23% (sify news, 2003). Women are expected to emerge as a large segment on the internet in the next 20 years.

Effective and efficient use of information technology like internet can help in assimilating information about variety, range and quality of products, publicity and marketing of products and services. Apart from being used as a tool of information and communication and employment, application of ICT has created avenues for women empowerment. Noteworthy examples are that of Gyandoot, Embalam, SEWA, Datamation and Smile.

SEWA (Self Employed Women's Association), uses ICT for women empowerment. The main goal of SEWA is to promote local income generating opportunities among women. The Self-Employed Women's Association SEWA, with 200,000 membership is spread over 800 villages in Gujarat. It uses an interactive satellite communication and Internet-based training programme to develop a cadre of barefoot managers among the poor women workers, focusing on women in panchayats, forests,

water conservation and so on. Through ICT, training is provided on issues as disaster management, leadership building, health and education, child development etc.

Gyandoot is a project started in Madhya Pradesh to fund rural networked cyberkiosks through panchayats. The project was started in Dhar district, to offer villages multiple services through internet based project. Through this project, information is available about rural life and agricultural projects. The internet gives information which was earlier available through middlemen. Information is available about education and employment opportunities. Complaints can be lodged on the internet which is of great help to men and women.

M.S. Swaminathan research project in Pondicherry in Embalam district has led to creation of information villages. Ten villages are connected by a hybrid wired and wireless network, consisting of PCs, telephones, VHF duplex radio devices, and email connectivity through dial-up telephone lines that facilitates both voice and data transfer. This has enabled villagers to obtain the information that they need and use this information to make improvements. Local volunteers gather the information, feed it into an Intranet, and provide access through nodes in different villages. There is Value addition to raw information, use of the local language (Tamil), multimedia (to facilitate illiterate users), and participation by local people. Most of the operators and volunteers, providing primary information, are women more than 50%, thus giving them status and influence.

Smile (Savitri Marketing Institution for Ladies Empowerment) is a voluntary organisation in Pune. This project has increased literacy level of underprivileged women through the usage of ICT. Internet has also helped them market their various products like soft toys, candles, bags, utility items, etc. Through Internet, there is greater awareness and exposure and market reach for the products. Internet generated debates

Datamation Foundation started a project in 2003 in Seelampur area of Delhi for muslim women. The project localised appropriate communication and information networks by setting up an ICT centre at a Madarsa. This helped link resource-poor women to the information and tools for knowledge management. It also helped establish buyer-seller linkages towards eradication of absolute poverty. It has established its standing in the community and became a big attraction for the women of Seelampur. People drop in to consult on matters other than computer training. The ICT centre has created self confidence in women and creating awareness about their interest and helped them take collective decisions.

Dairy Information Services Kiosk (DISK) is a project which uses Information and Communication Technology (ICT) in the dairy sector in Gujarat. ICT enables the creation of cost effective solutions that strengthen the exchange of useful information between farmers and the union. ICT facilitates dairy farmers with timely messages and education to manage their milch cattle and enhance the production of quality milk. It is also assisting dairy unions in effectively scheduling and organizing the veterinary,

artificial insemination, cattle feed and other related services. Usage of ICT goes a long way in empowering men and women.

Aamagaon Soochna Kendra (My village's information centre) is a project started by Government of Orissa by setting up 73 Information and Communication Technology (ICT) kiosks in the rural areas of 12 districts of Orissa. These kiosks are run by Women SHGs/ Panchayats/ NGOs / CBOs / Youth Clubs and managed by the Community IT volunteers paid through user charges collected and managed by the local hosts. Under a partnetship with Mission *Shakti*, women SHG members are being trained on computer fundamentals and Internet basics at the IT Kiosks on payment of an affordable fee. Access to IT training goes a long way in empowerment of women.

The usage of ICT is prevalent in several villages in Maharashtra. In **Warana Project**, in a VSAT-and-RF-based computer-communication network, a highly user-friendly information system in Marathi was developed. This was used for marketing of agriculture produce with a number of online features for selling the produce of the 70 villages to wholesale outlets in Pune and other cities and towns in Maharashtra. Information is updated daily with the help of the villagers themselves. Internet thus provides suitable opportunities to men and women.

Conclusions and policy implications of study

Women form a significant portion of labour force. To help women, policies should be undertaken as to increase women's access to computers and internet. There should be provisions for setting up of more women's only access sites. Efforts should be directed towards improving women's skills and usage of new technology.

It is also noted that there is a wide gap between computer education and absorption in the labour market. This is due to the fact there is restricted mobility for women. Timings of work is also a problem for women. Factors as Marriage, Childbirth, childrearing and household responsibilities may prevent women from working fulltime. Policies should be made to subsidise childcare. Transport facilities should be provided to women. If women had a break from work, there should be provisions for retraining in industry.

Steps should be taken to encourage women employees. Noteworthy examples are companies as Infosys, Wipro and I- flex. The Infosys Women Inclusivity Network (IWIN), conducts networking and mentoring sessions along with initiating policies, benefits and training via the group and there is a similar initiative within Wipro, called Women of Wipro (WOW). i-flex Solutions ensures that women are encouraged to join i-flex by having a woman representative on most its employment panels and has also run women-focused recruitment advertising campaigns. This policies go a long way in encouraging women.

The advent of IT can change the concept of work, especially for women. It is expected that more women will enter this sector as the new emerging trend could allow women to work from home with internet and telecom connectivity. Flexitimings and work at home would enable more women to join the labour force. It has been observed that companies like Datamatics have adopted this policy and it has proved to be a graet success. Similarly, other companies should also use this policy. The concept of part time work will also go a long way in helping women. There should be provision of child care support as day care centres and crèches also. All these factors will go a long way in benefiting women.

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