Impact of ICT on Women Entrepreneurs: A Literature Review

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ABSTRACT

Women entrepreneurs are important contributors to Indian economy. At the same time, institutional and systemic barriers, gender inequalities, as well as socio-cultural norms and practices are creating problems for women entrepreneurs for easy access to finance, physical mobility, access to get education, and to improve their skills. Information and Communication Technology (ICT) can help to overcome some of them, and there are also business opportunities in the ICT sector itself. In today's competitive world the survival of many business organizations are largely depending on the effective and efficient use of ICTs.

ICT tools are helping women entrepreneurs with unique and vast opportunities to empower themselves in multifarious way. In this paper, we reviewthe literature on the impact of ICT and empowerment of women, focusing on case studies on how ICTs had been implemented successfully by women entrepreneurs.

Keyword-- ICT, ICT Tools, Empowerment, Women entrepreneurs.

I. INTRODUCTION

In today's technologically advanced world, Information and Communication Technology (ICT) is playing a major role for economic growth and social development. ICT has become a key solution for empowering women entrepreneurs for various business related tasks like preparing business plans, for marketing their products, preparing reports, for data storage and retrieval, Budgetary Planning, planning and for analyzing problems and alternatives solutions etc., Women have increasingly proven to be active and enthusiastic participants in a large variety of ICT-enabled projects, such as computer training and data entry facilities, call centers, billing, computer repair work, and e-enabled businesses. (Hafkin & Huyer, 2006).

ICT have the potential to digitally link each and every woman in the world. It opens up endless possibilities for information exchange. This mechanism could be used by women entrepreneur in creative ways, both to communicate with other people, expansion of market access, to adopt best managerial practices, to share information to people in the outside world through community emails, tele-centres, videos etc.., Apart from business activities ICT also helps women participation in political, social, and economic arenasand supports empowerment for themselves, their families, and their communities. There is a need for more effective policies and programmes to support women entrepreneurs in developing countries so that they can seize the emerging opportunities made possible by ICTs. There is also the need for greater skills and capacity development for women entrepreneurs", said Anne Miroux, Director of the Division on Technology and Logistics of UNCTAD.

The methodology we adopted for this study is to first review the literature and identify factors of ICT that facilitated successful implementation of business by women entrepreneurs. We then identified a set of few successful ICT projects by women entrepreneurs and we analyzed to understand to what extent ICT helps women entrepreneurs and also to learn best practices that underlie each project that is successfull in empowering women entrepreneurs.

II. LITERATURE REVIEW

ICTs are increasingly promoted as a key solution for comprehensive development, poverty eradication and the empowerment of backward groups, such as women and minorities in the Global South (Bhatnagar & Schware, 2000; Friedman, 2005). There are few studies involving women entrepreneurs such as factors that make women leave the corporate world to become entrepreneurs (Nguyen, 2005), limitations and boundaries faced by women entrepreneurs when they decided to start up their own businesses (Winn, 2005).According to Nguyen (2005) most women starts their own business to provide additional flexibility and life balance in managing their traditional responsibilities as wife and primary caretaker of children. A handful of women entrepreneurs measure success as and when they can see that they are an economically valuable resource (Dhaliwal, 2000). This is to say that once they feel that they are generating an income and contributing to their

family they will feel that they have attained some measure of success.

A study of McClelland et al. (2005) showed that the female entrepreneurs in Canada, Singapore and Ireland utilized networking as a means of business development. Innovation in the business through Information Communications Technology (ICT) played an important role in supporting their business by gaining a low cost structure and achieving higher returns per customer (Marlin & Wright, 2005).

A research entitled Entrepreneurship and Social Inclusion by Fielden and Dave (2004) suggested that socially constructed barriers are responsible for inhibiting women's progressions. Furthermore, study acknowledged that mentoring and network support, especially at the local level, are at least as crucial in boosting women's attitudes with respect to business leadership and new venture creation as financial support. The emergence of technology and the internet has brought about many changes to the way that businesses are now run. The relationship between technological skill and firm development particularly to entrepreneurs is crucial. According to Ndubisi and Kahraman (2011), the importance of ICT to women entrepreneurs cannot be undermined. If in the past women had to deal with men personally and face to face, business through the Internet does not require this aspect. Demographic factors like age, gender and background are not as obvious in cyberspace as in the real world (Marlin & Wright, 2005). Increased agency and self-confidence allow women to travel more and develop a wider network of contacts. Such travel and networking expose them to the availability of more economic opportunities (Rice, 2003). ICTs can be a valuable tool for the organization and mobilization of women's advocacy and interest groups (Nath, 2006). Sharma (2003) argues that "societies that discriminate by gender pay a high price in terms of their ability to develop and to reduce poverty", an assertion that has been supported by every annual United Nations Human Development Report since 2001 (UNDP, 2001– 2006). Women are often discouraged, both at the family and village levels, in their entrepreneurial efforts. Often the fear that it may change or shift the power structure creates hurdles in their path. Many women are also uncertain about their professional opportunities once they get married. Those women who started doing business to support their family financially found difficult to manage household responsibilities and work responsibilities and thus women opting out for the ICT-driven developmental efforts (Hafkin & Huyer, 2006).

ICT provides women entrepreneurs with access to worldwide e-business channels, which can be operated 24/7 from home in real -time (Hilbert,M. 2011). Tele-working, call centers, the software industry and offshore services all are facilitating for more IT education and training in all levels of education, which would enhance girls, and later women, to become active contributors to their economy's growth and development (Badran 2014).

2.1. How ICT helps women entrepreneurs?

Major problems faced by women entrepreneurs are problem of getting finance, searching for raw materials, stiff competition, limited mobility, family responsibilities, selling of their products/services. ICTs opened new avenues for education, communication and information sharing, sending emails, and improving marketable skills of women entrepreneurs with the help of internet. Factors of ICT that facilitated successful implementation of business by women entrepreneurs are explained below.

Getting education: Women entrepreneurs are getting educated in data entry, data processing, desktop publishing (DTP), and IT education. With the help of ICT women entrepreneurs are getting trained regarding latest production techniques, gaining knowledge about ownership norms, learning techniques regarding distribution and sales logistics which further helped them to take better decision-making authority leads to greater knowledge, income and empowerment. A best example we can discuss here is about the computer training centre Kasargod in kerela. In the Kasargod facility women members are getting trained in assembly and installation, marketing and service of the computers. ICT training definitely helps women entrepreneur to learn management and business practices, marketing, purchasing, how to analyze the data, personnel management, negotiation techniques, etc.

2.2. Greater market integration:

Greater access to ICT information helps to know well about pricesand enables producers to plan about their product mix and input purchases in an efficient manner. Access to ICTs allows producers to sell their products in the most profitable markets and determine the optimum timing of sale which helps to reduce middle men interventions. Today ICT based e-commerce websites are providing greater access to regional, national and global markets and helps women to reach markets far from home and sell their Products directly through online thus cutting out the middleman and maximizing profits. E-commerce also helps them for procuring their required raw materials through online once again reducing costs. Women entrepreneurs also started advertising their products in e-commerce websites for free. As it is easy for them to upload all the information related to their products including about special offers and discounts etc., A best example here we can discuss about the story of a woman weaver from Kancheepuram, India which is a famous place for silk sarees. These women weaver used to wove beautiful sarees but she was forced to sell at a very low price to a middleman as she had no access to other markets for her products. IndiaShop an e-commerce website posted photos of her sarees on their website and was able to procure orders for her at a very good price, thus preventing her being exploited by a middleman. Women also acquired more bargaining power for their products as they are exposed to ICT specially World Wide Web through mobile phone and computer.

2.3. Indigenous Knowledge:

ICT helps women entrepreneurs to learn many new and innovative things in doing their business. Now

women are able to learn about many things for doing their business like latest procedures to produce their products, about new machineries available in the market, how to store their raw material/products, latest techniques in packing, knowledge relating to food processing, preservation, growing of specific crop, nutrition, and health etc.., Much of the knowledge that women in rural areas possess are scientific. IT can help organize and transfer this knowledge to outside communities that might benefit from it.

2.4. Increase Social awareness:

Mass media have up righted the position of women entrepreneurs in ICT sector all the more by publishing successful projects through advertisements, newspapers and social media. This is creating a better social awareness and helping them to create new social relations in public at national and international level. Listening to these success stories many other women got motivated and started incorporating ICT into their business. Female no more lack in knowledge in fitting themselves in right places. This positively highlights the influence of ICT.

III. EXAMPLES OF SUCCESSFUL ICT PROJECTS BY WOMEN ENTREPRENEURS

3.1.E-Seva centres in Andhra Pradesh:

E-seva project was run by the West-Godavari District Administration in Andhra Pradesh State, India, has established ICT enabled rural e-Seva centres. These centres are run by self-help groups of women from the poorest segments of society. Considerable numbers of these centres are under the control of women Self help Group or youth Self Help Group (SHG) members. E-seva project helped for women empowerment and also developed them as role models in bringing change in their communities through the use of ICTs in establishing knowledge hubs in rural areas. The project delivers government services like issue of land/birth certificates, bill payments telemedicine, tele agriculture, access to online auctions, filing of complaints and grievances, matrimonial services and tax payments.

E-seva is also providing business services to enable poor women to get a better price for their products. In addition to the regular line of services, they also sell non-ICT- based goods and services such as spices, groceries or decorative items to augment their income. The actual number of computers availability at each e-Seva centre varies from place to place based on their local needs. For example in a small village an e-Seva centre will operate with one computer, a scanner, printer, Xerox machine and digital camera. In a town there would be more than one computers and provision of Web-cams etc. Each centre is provided with internet connection in villages they use dial-up and in towns they use a leased line connection. Apart from their financial success, there has been a change in the status of the entrepreneurs, who have moved from undertaking odd marketing jobs or working as agricultural laborers to

becoming owners for e-seva kiosk (Kendras). After the initial gossip about women's capacity to be IT kiosk operators, women's hard work and dedicated service ensured that the kiosk functioned and continued to function, in an effective manner.

(Source: Rural e-seva Kiosks IT for change (2008) available at: www.ITforChange.net Creative Common License: Attribution-Non Commercial-Share Alike 3.0)

3.2. Kudumbashree:

Kudumbashree is a project started in Kerala with mission of poverty eradication among poor women. Kudumbashree is sponsored by local self-government institutions in kerela. This project helps for income generating activities under individual and group initiatives to meet the livelihoods of the poor women. It initiated the efforts to form a group suitable for the microenterprise by linking with local women and trained them with desktop publishing (DTP) course. The main activities of the unit are training women related to PC assembly and installation, computer training, data entry operations, service and sales and steady stream of customers.

With the help of ICT training programme women started participating in various district- and state-level events exposed them to business opportunities, helped them make connections, and led to business deals. The unit uses one landline telephone, two mobiles, one PC and printer, an Internet connection, and software, including Windows98, Windows XP, Linux, Script Easy (Malayalam software), PageMaker, Photoshop, and Corel Draw and has uninterrupted power supply. Under Kudumbashreen poor women under taken many micro enterprises like IT related units, Canteens/ Catering units , Group farming units, Fruit Processing units, Foot ware units, Umbrella units, Building materials units ,Horticulture units, Electronics units ,Readymade garments units, Soap powder units, Toys units , Grocery shops etc.,

(Source: Dr V P Raghavan (2015) Social Action, Gender Equity and Empowerment: The case of Kudumbashree Projects in Kerela.)

3.3. India Shop:

FOOD (the Foundation of Occupational Development), a 20-year-old nonprofit organization based in Chennai promoted online shopping website called India Shop. This is a form of ICT based e-commerce website. This website is a successful online shop that sells indigenous products such as sarees, leather goods, sculptures, and other handicrafts made by rural artisans and women cooperatives in Tamil Nadu. This project seeks to encourage economic empowerment of the rural and urban poor women. India Shop enables rural artisan women to directly market their products to local, regional, and global customers, thus cutting out the middleman and ensuring higher profits. This project was so successful that the Council for Advancement of People's Action and Rural Technology (CAPART), a division of the Government of India, supported it for an additional 3 years. According to the annual report published by FOOD, in the initial stages of the project

drew an average of 8,000 visitors per month to its Web site, and the women cooperatives earned a profit of about 75,000Rp. Additionally, India Shop started providing job opportunities and is currently hiring 1,000 telecommuters through this Web site to sell India Shop products online from home, full- or part-time.

(**Source:** Empowering Women through ICT-Based Business Initiatives: An Overview of Best Practices in E-Commerce/E-Retailing Projects)

3.4. Divine Computers:

A team of six women have formed an IT based training programme called Divine Computers at Azhiyur Secondary School in Vadakara, Kerela. Divine Computers is the service provider for the Vidyasree IT @ School Programme. This training programme was launched with the support of kerela government, to deliver computer education to school students at subsidized rates. These team of six women spent about three months for mobilising the necessary resources and for setting up the infrastructure for the enterprise. They invested their own money of about US$220 and they received a loan of US$4,400 from the State Bank of Travancore, under a Federal Government scheme to help poor women. Apart from these they also received a subsidy of US$2,200 directly from Kudumbasree Mission and they also benefited from a US$700 subsidy via the Federal Government scheme.

This team provides computer training to school students as well as short courses to the students and also provides summer training programme for local citizens. The six members alternately teach theory classes on computer basics and also supervise lab sessions. As per 2004-2005 the overall monthly income from school and non-school training combined was US$261 which is 52% greater than income in 2003-2004, reflecting the growth in training activity. The group said the secret behind their success was their unity, collective decision-making, strong sense of togetherness and early resolution of interpersonal conflicts. They are very happy because they are able to manage both their family and their own enterprise. They are feeling highly motivated and now they can able to manage any situations with confidence. They formed a strong attachment with children which helped to develop a sense of personal self-reliance; and they have enjoyed greater personal freedom.

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