ICT AND EMPLOYMENT AMONG WOMEN: A CASE STUDY OF KUDUMBASREE ICT PROJECT

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Abstract

The Kudumbashree project from Kerala (a state in the southern part of India) has been a much discussed case for the community of practitioners, policy makers, researchers working on technology, empowerment and development. It is built around three pillars of economic, social and women's empowerment. Its formation was the culmination of a process of community mobilization taken up by the State Government. But this article is focusing on the inclusion of gender in policies relating to information and communication technology with the aim of empowering socially excluded women as users and producers of this technology. The prominent part of this investigation is the case study of Kudumbashree ICT enterprises in the State of Kerala to understand the factors that resulted in the working of the enterprises and performance of them. Data were collected from Northern part of Kerala. Focus group discussions and interviews were the method employed to gather information.

Keywords: Women, Employment, Kudumbashree, ICT (Information and Communication Technology)

Introduction

Progress made in the field of information and communication technology has triggered the world economy due to its rapid growth and efficiency. The adoption and diffusion of information and communication technologies (ICT) has been the most radical technological change of recent decades (Chadha & Kapoor, 2012).While the developed countries are already taking advantage of this revolution, many developing countries have pegged high hopes in this field. Recent developments in this field increasingly dominate the explanations of contemporary change. The Internet is now a part of the globalization process that is evidently sweeping away old realities and certainties, creating new opportunities and challenges associated with living in a "compact" world (Shrivastav & Ekata, 2013).

Hundreds of billions of dollars are spent on information and communication technologies, reflecting a powerful global belief in the transformatory nature of these technologies (Nath, 2001). ICTs are increasingly promoted as a key solution for comprehensive development, poverty eradication and the empowerment of historically disadvantaged groups, such as women and minorities in the Global South (Hafkin & Huyer, 2006; Freidman, 2005; International Telecommunication Union, 2005; Huyer & Mitter, 2003; UNCTAD, 2002; Hafkin & Taggert, 2001; Bhatnagar & Schware, 2000; Heeks, 1999). While there is recognition of the potential of ICT as a tool for the promotion of gender equality and the empowerment of women, a "gender divide" has also been identified, reflected in the lower numbers of women accessing and using ICT compared with men (Dalal, 2006).

The Declaration of Agreement in Support of Girls and Women in information and communication technology, introduced at the United Nations World Summit on the Information Society in Tunis, Tunisia on November 16, 2005, stresses that "ICT allows women increased participation in political, social, and economic arenas and supports empowerment for themselves, their families, and their communities." In recent years, therefore, development agencies, such as the World Bank, USAID and the Canadian International Development Research Centre (IDRC) have substantially increased funding for ICT projects that specifically aim to empower women, such as e-commerce, e-government, business development and networking projects. 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 and Huyer, 2006). Many e-commerce projects have become famous in the Global market due to their ability to exploit and use the potentials and skills of women at least in the initial stage. The Georgetown-initiated Cottage Industry, Tortas Peru, the India Shop, Women Entrepreneurs and Handicrafts producers in Bhutan are examples of (at least, initially) successful e-commerce projects. Projects like those by the Delhi based Datamation Foundation, the Information village project in Pondicherry, India and the Grameen Phone Project in Bangladesh serve as models of the potential of the ICT based projects (Maier & Reichert, 2008).

In recent years special emhasis has been given to the significance, relevance and inclusion of gender issues in the policies concerned with information and communication technologies in developing countries. Such assessments highlighted the importance of integrating gender equality considerations in such policies (Walby, 2000). In this context it is difficult to understand how at the same time this technology can establish gender equality and also empower socially excluded women as consumers and producers of this technology. We have to recognise the fact that along with

the digital divide between men and women, on which serious research work has been done, a divide is also emerging between rich and poor women and more and less educated women. There exists an ICT access and use gap among women of various social categories, households with different levels of income and assets, education and occupations, different/ racial ethnic groups and ages (Saith, 2001).

However, there is a view that the labor component of the ICT labor process that involves lower-value-added jobs (data entry, accounting, book-keeping services) may be production-friendly for the relatively better-off among the poor, but moving up demands at higher levels of skills may be rare among poorer women (ILO, 2001).

India gives a significant priority to ICTs both on the production side (as seen, for instance, in the development of its software industry) and on the consumption side (with significant investments in e-government applications, and attempts to push ICTs out into rural areas) (Heeks, 1996; Bhatnagar and Schware, 2000). Application of ICTs has taken place through a variety of different models; for example, from pure market to pure state, and from gender-blind to gender-focused (Singall and Rogers, 2001). Spurred on by this, many governments in the individual Indian states have initiated micro reforms to attract more investment in the ICT sector to their respective regions. The Government of Kerala state (GOK) in South India is no exception and it has developed policies that emphasize ICTs as an engine for industrial growth and employment. The state's ICT policy in this domain articulates a three-fold strategy: (1) establishment of a vibrant ICT industry; (2) building up a robust infrastructure; and (3) up gradation of the quality of human resources (Government of Kerala, 2003). Kerala is known for its high social indicators like health and education , but still a major portion of women are unemployed. The female work participation rate is also low (21.54 in 2011 census).

In the past, to generate employment among women, the state extended training and education schemes, promoted women-preferred industries, set up industrial cooperatives, and so on. An experiment was tried out by the Kerala State Electronics Development Corporation (KELTRON), which undertook to promote ancillary industries for the assembling of radios by women's cooperatives for a fee. A detailed study of the scheme revealed that the economic viability of the units was weak as most of the units incurred heavy losses. The units enjoyed only restricted autonomy with regard to prices, delivery of supplies and collection of assembled radios controlled by the parent firm (Pillai and Shanta, 2011). This contributed to erratic production and poor work organization (Sen and Gulati, 1987). Another major initiative at the governmental level was the implementation of the Women's Industries Programme (WIP) aimed at providing employment

opportunities to poor women. The programme has resulted in the proliferation of tiny units in low technology areas such as spices, curry masala production and readymade garments. However, the infrastructure and supports for procurement of raw materials, marketing and credit have been inadequate, resulting in very high levels of sickness and closure (Pillai and Shanta, 1998). Numerous factors can impact the success of an ICT based project. While many papers have addressed the gender perspectives related to this topic and there are case studies examining the impact of ICT on the empowerment of women, but this study focusses on the Kudumbashree ICT emterprises situated in the northern part of Kerala and includes mainly five districts which are Kozhikode, Malappuram, Kannur, Wayanad and Kasargode.

Kudumbashree Mission

Its formation was the culmination of a process of community mobilization taken up by the Government of Kerala. This started with the community led poverty identification in Alappuzha Municipality in the early nineties followed by a district level CBNP effort in Malappuram district in 1994. The decentralization process initiated in 1996 gave a fillip to the process of strengthening women's participation in governance structures. The Kudumbashree Mission was launched in 1998, to create a State wide base of community organizations of women that would work in tandem with the local self governments for poverty eradication and women's empowerment. Hence, initiatives for women's empowerment, micro-finance operations, micro enterprise promotion and community action constitute the core activities of Kudumbashree carried out through organizations of women below the poverty line (BPL). These enterprises are all owned, managed and operated by women from such families. Micro enterprise promotion is the prime thrust of the Community Development's Model for Urban Poverty Alleviation. However, these enterprises are more suited to women with lower levels of education (Pilllai and Shanta, 2011). ICT microenterprises initiatives are the first among the Kudumbashree activities. They mainly intend to eradicate poverty and empower women through self help groups. In the context of the new innovative organizational structure, success depends on the ability to transform technical learning into opportunities (Pillai and Shanta, 2011). If four or more from a set of nine criteria apply, families are treated as poor or at high risk of poverty by Kudumbashree.

The criteria are:

1. Lack of a proper dwelling;
2. Inaccessibility of safe drinking water;
3. Inaccessibility of sanitary latrines;
4. Not having more than one earning member;

5. Eating less than two meals a day;
6. Presence of children below the age of five;
7. Presence of illiterate adult members;
8. Presence of an alcoholic/drug addict;
9. Socially disadvantaged status.

This study focuses on the factors that lead to the sustainability of these enterprises as well as their performance. The analysis of the article can be broadly divided into two parts, first part deals with the performance of the enterprises and the second part highlights the major factors that are responsible for the sustainability of these units.

Methodology

Various information such as demand and supply of work, structure of support and working conditions etc. was obtained through focus group discussions and interviews of ICT enterprise members and officials who have played a key role in Kudumbashree ICT enterprises. These enterprises are scattered all over the State. Through the data obtained from Kudumbashree office there are over 63 units situated in 14 districts of Kerala as on 2014. Northern Kerala has 20 units in total. All the units were covered for the purpose of the study and around 92 active members were interviewed. For the in depth study, the microenterprises of Kozhikode and Wayanad were purposefully selected as they were found to have opposite experiences with regard to their performance. Kozhikode microenterprise is one of the best functioning unit whereas Wayanad units are at the merge of collapsing. All of them had more than ten years of experience. Analysis of the regional spread shows that most of them were situated in urban regions than in rural areas since the programme was initiated in urban areas. Regarding capital investment, each unit possessed around ten computers and two printers. Out of 20 units, all of them had internet as well as telephone connection. On an average, each unit was given a subsidy of 125,000. In addition, these units took loans with the help of Kudumbashree. The average loan came to around ₹290,000 (more than twice the subsidy amount). As far as their own contribution was concerned, only a few units reported it. Based on the available data, on an average this would come to about 10,000 per unit. Thus, an initial investment of around ₹425,000 was undertaken in each unit.

On average, each Kudumbashree unit was started with 10 women. In some units, for various reasons like marriage, lack of permanent income, employment in other offices, family issues made some members to drop out from these units. On an average, dropouts were around five. Today, the average strength is five members. Depending on the work load other women were employed as and when required. It ranged from 40 in one unit to a minimum of four in another.

The study provided some insights on the sources and type of work. Out of 20 units, 18 units did data entry jobs where as the rest did IT training and hardware jobs. All of them found work on their own as they faced lack in sources of work provided by the Kudumbashree State Office.

Performance

Through the field visits it was found that these members do not maintain a proper record of their transactions. The reason identified was that, there was no authority to check these matters which made them irresponsible. Hence, an important point to be discussed here is the unavailability and failure in the systematic maintenance of records on the volume of business handled by them. This fact hindered certain areas on the analysis of the performance of these units. The study revealed that around 50 percent of the units don't have a proper record that could be used as a reference material. Even the working environment of more than 60 percent of these units was not found to be systematic and professional. The reason can also be that some of the members went to work in panchayaths, hospitals and other Government institutes. As part of the constitution of Unnathi Consortium in 2012, it paved way for these units to function on their own as complete support from the Head Office was withdrawn. The issues examined under this topic include business input output and wage levels.

It has to be noted that most of the units have taken loans and all of them ensured the repayment of these loans. This is indicative of the fact that all of them received enough work to cover their debts. The average wage of each member was found to be around 2560 per month which also deferred based on the volume of work done by them. Loan repayment behavior can be an indicator of the financial condition of these units. 50 percent of the units spoke on the financial instability they faced due to lack of proper support from higher officials. A study of Pillai and Shanta (2011) also revealed the sales of these units showing that actual output (19 percent) when compared to the potential per PC (81 percent) was very less. The reason for the steady increase in the income and employment of certain units can be identified as their social and economic cohesion. These women even demonstrated high standards of leadership and unity. It was also found that these units have emphasized quality improvement through better use of technology, upgrading of skills and good business networking with local companies, influential individuals and consultants. Another factor which helped these enterprises was logistical advantage. Such units also happened to be located in places where there was scope for getting work orders from sources other than Kudumbasree. The units also developed business strategies for expanding their customer base (Pillai and Shanta, 2011). This was evident in case of Kudumbashree ICT enterprises of Kozhikode district.

Whereas, in case of Wayanad district, a steep decrease in the number and volume of works was found. Several factors seem to have contributed to the failure of this unit, one being insufficient liquidity to tide over the delay in payment to their staff. In the time of crisis, the units were forced to borrow from moneylenders. Not only did they not try for outside work to resolve the problem, there were also internal conflicts among members. Poor managerial skills, lack of motivation and good leadership can be reason for their decline. The prime cause of failure can also be the subsequent drop-out of members.

Accumulation of property as assets also contributes to the performance of these units because if the units perform better, they become financially more secure. 91 percent of the families held land and among the women members around 80 percent of them had acquired land of their own along with assets like gold and houses. 3 percent of them live in rented houses which limit them from raising resources for their welfare. The introduction of poor women to the ICT sector seems to have addressed both the social and economic digital divide; the Kudumbashree rendering financial, technical, and managerial assistance and training in both hardware and software (Pillai and Shanta, 2011).

Government and Institutional Support

This part focusses on the business/work training provided by the government, or the institutional support delivered to the Kudumbashree ICT enterprise members along with the initial help offered to them. Interview, focus group discussion were the methods used to get information under this topic. All of them positively responded to this enquiry. It was found that 90 percent of them were a part of their respective Kudumbashree ICT unit from the initial stage itself. Either members of the '*Ayalkootam*'(Neighborhood group) or their educated daughters with SSLC as minimum qualification were allowed to be a member of this venture. They were then sent for training continued by a test. During the beginning stage, the Kudumabashree officials provided all sorts of support to them ranging from initial training like EDP (Electronic Data Processing) workshop, technical, management, business practices, negotiation techniques, marketing support etc. Data entry, data processing and DTP works are some of the major projects handled by them. This shows the attention received by the Kudumbashree micro enterprises during initiation. It again demonstrates that with the world, the Government of Kerala hopes to reduce the gender inequalities and finds ICT project interventions at the micro level to the designing of macro level gender sensitized policies (Jorge, 2002). An executive committee member's meeting is held every month and a general meeting ones every year. The learning from these trainings become important only when they are transformed into performance as learning is of little value to organizations

unless it is transferred in some way to performance (Holton, Bates, Seyler, and Carvalho, 1997). Learning is an internal behavior, whereas performance is usually a more external one.

During the initial stage, works were given by the headquarters itself and all the necessary data like the required software CDs, technical training and contact details were also taken care by them. It is clear that the instrumental and the informational support from the officials have helped these micro enterprises to flourish upto some extent. On the basis of the conceptual evaluation model of training proposed by Holton (1996) on individual performance it was found that there are three primary outcomes of training intervention: learning, individual performance, and organizational results which clearly proves the above described finding. If the first two factors are obtained then the result will be better leading to productive organizational outcome.

As part of monitoring, evaluation and corrective action a state level consortium of IT units called 'Unnathi' to boost the entrepreneurial acumen of women in the IT sector (*The Hindu*, 2012) was formed. All the respondents spoke on the consortium saying that it focuses on the upgrade of IT infrastructure and skills development in addition to facilitating access to expert assistance for the units and it also aims at creating jobs for women in the IT sector, developing new welfare schemes in the fields of education and health as well as boosting collaboration with the IT industry at large.

90 percent of the members said that the training and the institutional supports offered to them also focused on creating a sense of unity and harmony amongst them which they found as another reason for their sustenance. The state of cohesion that group members share also puts light on Emile Durkheim's (1893) concepts of mechanical and organic solidarity. The members represent cohesion and integration due to the homogeneity of these individuals as they feel connected through similar work, educational and religious training, and lifestyle. Although individuals perform different tasks and often have different values and interest, the order and very solidarity of their association depends on their reliance on each other to perform their specified tasks.

Societal Involvement

Societal involvement refers to the participation of community elders, officials and the support from the family members. Interview, focus group discussion was used to collect data. All of them said that they received a lot of support in the form of providing infrastructure, tools, and training practices from the officials. Local bodies were hand in hand with the Kerala Government to jointly launch this poverty eradication project. This thrust from the government side can also be the reason for the reduction in gender

disparity in the usage of ICT. It was observed in a study by Prasad and Sreedevi (2007) that contrary to the opinion (or rather misconception) of the common people of Kerala and the political leadership, the officials tried to tap the potentials of ICT for poverty eradication and employment generation. 95 percent of them came to know about this project through the neighborhood groups. Such organized and systematic effort from both the sides of women and the officials can also be the reason of the success of this project. Looking at the study by Nath (2001) he argued that women over time have learned the advantages offered by ICT and its potential in opening up windows to the outside world. This has put them in a greater control over the activities performed by them laying the foundation for entrepreneurship development. As a backup they also require immediate care from their family as well. 95 percent members were married and had children. Amongst them 60 percent of them have either their mother or their mother in law to help them with their household activities which again shows the acceptance they get in their home as employed women. This proves the findings of Castells (2010) on the degendering of social institutions where women's communes, and the spaces of freedom of sexual identity, project themselves into society at large by undermining patriarchalism, and by reconstructing the family on a new, egalitarian basis that implies the degendering of social institutions, in opposition to patriarchal capitalism and to the patriarchal state. This is also a proof of the fact that now women (rural and urban) do not suppor the division of labor followed during the times of their mothers and grandmothers. Castells (2001) has argued that more women have conquered their autonomy, and the more new generations of women can no longer relate to the conditions under which their mothers and grandmothers used to live, the more feminism diversifies and transforms gender relations by shifting from emancipation to liberation, ultimately dissolving gender as a cultural category and a material institution that uses biological differences to construct the sexual division of labor.

Empowerment of women would mean equipping women to be economically independent, self-reliant, have positive esteem to enable them to face any difficult situation and they should be able to participate in development activities. The empowered women should be able to participate in the process of decision making (Hazarika, 2011). 90 percent of them experienced a lot of change in their behavior and the behavior of their family members. Now they are more confident, know their desires and have recognized their capability of achieving objectives. This observation explains that potentials of ICT include the capacity to neutralize gender distinctions as in digitized sectors, women as professionals have experienced new opportunities and they may fight for greater equality with men in these economic sectors. But they do so largely within the confines of existing

hierarchies of economic power. Also, a generalized beneficial effect of social support could occur because large social networks provide persons with regular positive experiences and a set of stable, socially rewarded roles in the community. This kind of support could be related to overall well-being because it provides positive affect, a sense of predictability and stability in one's life situation, and recognition of self-worth. Integration in a social network may also help one to avoid negative experiences (e.g., economic or legal problems) (Cohen and Wills, 1985). Also as these women became economically independent, the resistance towards their job got reduced. The power developed by them may be the outcome of their economic independence. Marx's comments and debates on technology had shown that one's relationship to science and technology becomes ever more symbolic of one's relationship to power (Wendling, 2009). A very major problem identified by them was the lack of attention they could give to childcare and household work. Sometimes it had become difficult for them to balance their dual responsibilities while getting loads of work. This is again the proof of the contrasts in domestic responsibilities between men and women in developing countries, as well as to how, as a result of this, the time of women is more constrained than that of men (see, for example, Gibbons, 2004; Hafkin & Taggart, 2001).

Managerial Practices

80 percent of them have observed a good interpersonal communication between the members as a reason that can lead to better management of the micro enterprise. They also said that they come together and discuss their problems together to find a common solution. This particular social action can be linked to 'communicative action' , the famous concept of Jurgen Habermas (1984), in which actors in society seek to reach common understanding and to coordinate actions by reasoned argument, consensus, and cooperation rather than strategic action strictly in pursuit of their own goals. Participatory approach can also be a good managerial practice as all the women members have to invest in the initial stage which puts responsibility on everybody. As part of this approach they even helped other members in their work and also covered the tasks during each other's absence. All these members took training seriously which have also helped them to learn more from the experts which showed their dedication towards their own initiative. On their motivation, almost 90 percent of them opined that they wanted to do something for themselves and gave this project a try.

Another factor providing support for them was their public relation. They had very good relation with panchayath, municipality and corporation officials as at this stage they are able to get maximum jobs from public organisations.

One of the member said "*Due to these public contacts we get our works done in panchayaths much faster than other people. We get our work done in one day while others may take three or more days."*

And through these contacts which they have developed over time now they are trying to get private sector jobs, for example, two of the units have worked as hospital kiosk to enter death` and birth details. Through the training they have even learned market strategies. As discussed previously on the closing down of some IT units, these findings explains the reason for the sustenance of certain IT units as the other units might have lacked some of these characteristics. All the members interviewed exhibited strong commitment to stay in this field despite several hurdles faced by them. Limitation on mobility didn't cause much concern for them as most of them got their work from the urban area itself.

Conclusion

Sen (1990b) hypothesizes that women's participation in paid work tends to enhance their well-being. There are various approaches to well being. The capability approach can be applied here. Their earning's through their work can lead to increased independence and higher contribution in the economic position of their family. Physical mobility and interaction with the outside world can also lead to increased perseverance and decision making power in their household matters. As for benefits from work 92 percent said they benefitted by improving their technical skills, 94 percent opted for improvement in their communication and 50 percent found enhancement in leadership skills. These factors have greatly influenced their outlook towards themselves, self-confidence and general awareness on society. In short, ICT work gave the women a reasonably good income, familiarity with modern technology, more exposure and knowledge of the working of offices. It increased their social status as a whole. These achievements spilled over to their families in the form of better education, health and other basic amenities (Pillai and Shanta, 2011). Many literatures have proved that gender empowerment and economic development go hand in hand (Elson 1995; Nussbaum 2001; Sen 2000; Prasad & Sreedevi, 2007; Hazarika, 2011).

Other dimension of these ICT enterprises has to be mentioned as they face instability in income due to the nature of work and the support withdrawn from the Kudumbashree Head Office. These can also be the reason for the shutting down of some units. Through the interviews it was identified that around 80 percent were despondent as they received low benefits and income. Literature studies, interviews and field visits on these ICT initiatives under the umbrella of Kudumbashree indicate a vast potential for the empowerment of poor women. The programme marks the opening up of opportunities in the ICT sector to poor and socially backward women with

adequate organisational support. Poor women through this programme have made an entry into the lowest spectrum of IT enabled jobs (Pillai and Shanta, 2011). The declining number of these units show that the current state of training and support provided by the officials need to be reassessed. There were 236 units in the year of 2006 and now it has reduced to 63. With the help of the officials, a stable and continuous linking of customers can be done which in turn results in the stability and solidity of income. ICTs not only allow access to information and knowledge, they also enable and facilitate technologies that can be used to save time and money, and can improve the quality of both work and home life (Rice, 2003).Hence, ICT sector if implemented properly after need assessment and planning can lead to the empowerment of poor women to enable them to participate in the process of development.

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