



WOMEN AT THE DIGITAL FRONTIER: BUILDING WOMEN'S CAPABILITIES THROUGH CSC-ENABLED ENTREPRENEURSHIP

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RESEARCH ARTICLE



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Abstract

In human societies, lamps not only provide illumination but also transform everyday living standards by extending opportunities for learning, mobility, and security after sunset. In a similar vein, in the era of digitalisation, online platforms can serve as important instruments for women to improve their quality of life by expanding what they are able to do and to become. In this context, the Common Service Centres (CSCs) are envisaged as grassroots institutions of social transformation in rural areas, designed to provide a wide range of digital services and information at the doorstep of rural citizens. Beyond mere service delivery, CSCs have also emerged as significant platforms for ICT-enabled rural entrepreneurship, offering sustainable livelihood opportunities for women. However, existing scholarship on CSCs has largely concentrated on their operational and infrastructural dimensions, while a gendered perspective remains largely absent in such analyses. Drawing on a case study that employs both qualitative and quantitative methods, this paper examines how these transformative online platform-based entrepreneurial initiatives empower rural women by expanding their real opportunities and enhancing their agency in the Malda district of West Bengal.

Keywords: *Information and Communication Technology, Common Service Centre (CSCs), Women Empowerment, Entrepreneurship, Capability Approach*

Introduction

In our world, change is a natural and inevitable phenomenon in human society, so, with the passage of time, the world continues to evolve. What was new and modern yesterday became old and outdated today. The contemporary period is often characterized as an “information society” or “network society.” In this context, the perspective of Pardhasaradhi becomes particularly relevant. He describes information as the “lifeblood of public governance,” emphasizing its central role in understanding the structures, functions, processes, and policy frameworks that shape governance systems (Pardhasaradhi, 2004). To illustrate the importance of information, the context of the Mahabharata may be considered. In this epic narrative, both Arjuna and Duryodhana approached Krishna seeking his support just before the war of Kurukshetra. In response, Krishna offered them a choice: on one side were his vast army, wealth, and material resources, and on the other side stood Krishna himself, who would not participate in the war but would offer guidance. Duryodhana, delighted to have the first choice, selected Krishna’s army and resources. Arjuna, however, chose Krishna himself, seeking his wisdom, knowledge, and personal guidance.

Ultimately, Krishna’s counsel proved to be the decisive factor between victory and defeat, glory and destruction. This raises an important question: why was Krishna’s presence more valuable than material resources? The answer lies in the knowledge and strategic insight he possessed, which enabled Arjuna to defeat his adversaries and ultimately secure victory in the great war of the Mahabharata (Babu, 2019). From this interpretation, it can be argued that resources alone are insufficient if individuals lack the knowledge and capability to utilize them effectively. Information and knowledge are therefore not merely resources; rather, they constitute a pivotal means of transforming human life.

In the contemporary world, information and communication technology (ICT) increasingly performs a role analogous to that played by Krishna for Arjuna—facilitating the dissemination of information, knowledge, and services to people and thereby contributing to the creation of an empowered, knowledge-based society. Recognizing this transformative potential, the United Nations has emphasized, through the Sustainable Development Goals, the critical role of ICT in accelerating human development, bridging the digital divide, and fostering knowledge societies (United Nations, 2015).

Moreover, ICT provides diverse opportunities and choices for livelihood generation and income creation, particularly for women. Women’s participation in income-generating activities has been shown to reduce gender-based inequalities (Asian Development

Bank [ADB], 2013). Encouraging women's entrepreneurship offers multiple benefits: it contributes to women's empowerment, reduces gender disparities in the labour market, expands livelihood opportunities, alleviates poverty, and promotes sustainable economic development. Nevertheless, women entrepreneurs remain a minority in many developing countries and often encounter significant social and familial constraints (ADB, 2018; Panda, 2018). Patriarchal norms and gender-based taboos frequently restrict women's capabilities, confining them primarily to domestic responsibilities such as household management, childcare, and caring for the elderly. These expectations create additional barriers that hinder women's participation in income-generating activities (Esther Duflo, 2012; Yu & Cui, 2019).

Within such constraints, online platforms offer women a meaningful opportunity and greater freedom to engage in income-generating activities from their homes. In this regard, one such transformative initiative undertaken by the Government of India under the broader framework of Digital India is the Common Service Centres 2.0 scheme. The Common Service Centres (CSCs) are envisioned as grassroots institutions of social transformation in rural areas, designed to deliver a wide range of digital services and information at the doorstep of rural citizens. Beyond service delivery, CSCs have emerged as important platforms for ICT-enabled rural entrepreneurship, offering sustainable livelihood opportunities for women while simultaneously promoting digital literacy. The scheme operates through a public-private partnership (PPP) model structured across a three-tier institutional framework. At the village level, Village Level Entrepreneurs (VLEs) operate CSCs and provide digital services and information to citizens. At the district level, Service Centre Agencies (SCAs) are responsible for managing, supporting, and expanding the network of VLEs and associated business operations. Finally, at the state level, State Designated Agencies (SDAs) oversee, monitor, and supervise the implementation of the CSC project.

Drawing upon the Capability Approach proposed by Amartya Sen, this paper examines the functioning of this programme in rural India, focusing on how women utilize digital platforms for livelihood generation through the Village Level Entrepreneur (VLE) scheme, as well as the achievements and challenges they encounter in the process. The CSC-VLE programme, implemented under the Digital India campaign by the Ministry of Electronics and Information Technology, represents a significant initiative aimed at expanding digital access and entrepreneurship in rural areas. However, despite its growing importance, the existing scholarship on CSCs has largely concentrated on their operational and infrastructural dimensions, while a gendered perspective remains largely absent in such analyses. Drawing on a case study that employs both qualitative and quantitative methods, this paper examines how these transformative online platform-based entrepreneurial initiatives empower rural women by expanding their real opportunities and enhancing their agency in the Malda district of West Bengal.

Methodological Approach

This study adopts a mixed-methods approach, integrating both qualitative and quantitative techniques. Data has been collected from both primary and secondary sources. Primary data were gathered through in-depth interviews, structured questionnaires, and observational methods. These tools enabled the researcher to capture both qualitative insights and quantitative responses from women participating in the e-governance ecosystem, particularly those engaged in CSC-enabled entrepreneurial activities. Secondary data were collected from books, academic journals, online resources, relevant scholarly articles, and official government websites.

The study was conducted in the Malda district of West Bengal, which are relatively less developed regions. A total of ten women Village Level Entrepreneurs (VLEs) were selected for the study.

For the selection of respondents, a purposive sampling technique was employed. This approach was considered appropriate because, according to government records and existing literature, not all Common Service Centres operate regularly or remain active. Therefore, only those CSC women entrepreneurs who consistently and actively operate their centres were included in the sample in order to ensure the reliability and relevance of the collected data.

Results and Discussion

Empowerment can be understood as the process through which individuals acquire the capabilities or abilities necessary to perform social, political, and economic activities that contribute to improving their living conditions and overall well-being (Lord & Hutchison, 1993). In this regard, information may be considered a crucial enabler of empowerment. Information and knowledge are not merely resources; rather, they function as pivotal instruments for transforming human life. Access to information enables women to achieve beneficial outcomes in areas such as finance, health, education, and employment, while also strengthening their ability to exercise their rights and enhance their autonomy in decision-making.

However, several studies have pointed out that women are often excluded from equal access to information and opportunities when compared with men. This disparity arises due to a wide range of socio-economic constraints, including low levels of education and digital skills, limited freedom of mobility, lack of financial independence, and restricted decision-making authority within households and communities (Acılar, 2011)

In the twenty-first century, Information and Communication Technology (ICT) has emerged as one of the most transformative mechanisms for promoting women's empowerment through entrepreneurial development. Recognizing the growing significance of ICT in entrepreneurship and rural development, the Government of India launched the Common Service Centres 2.0 scheme under the broader framework of Digital India. This initiative aims to expand opportunities and life choices for rural populations by enabling individuals—particularly women—to establish and operate Common Service Centres (CSCs) as Village Level Entrepreneurs (VLEs).

In this context, the present study seeks to understand how this initiative contributes to empowering rural women VLEs, particularly in relation to their complex functioning of “doing” and “being.” Within the capability framework, these concepts refer to the ability of individuals to perform certain activities (“doing”) and to achieve valued states of existence (“being”). These two dimensions constitute the core components of human functioning and are central to the process of empowerment.

Based on fieldwork data, women VLEs can be broadly classified into three categories. First, there are women VLEs who proactively manage the day-to-day operations of their centres independently. Second, there are women who assist their husbands in running the CSC when necessary, often playing a supportive role in the operation of the centre. Third, there are women whose CSCs are formally registered in their names but are primarily managed by male family members—usually husbands or sons—while the women themselves possess limited knowledge or involvement in the centre’s activities. The following sections present the analysis of these categories based on field observations and interviews.

CSC-Enabled Entrepreneurship and Women’s Empowerment:

1. Economic Activities and Impacts

In recent years, entrepreneurship has increasingly been understood as the process of transforming innovative ideas into profitable ventures through individual initiative. It plays a significant role in socio-economic development by generating employment opportunities, encouraging innovation, and fostering economic dynamism (Banny & Kazie, 2007).

In the context of CSCs, field observations indicate that the initiative has created new opportunities for rural entrepreneurship, particularly for women. When a woman becomes an entrepreneur at the village level through a CSC, it not only provides her with a livelihood but also contributes to broader social and economic development within rural communities.

On average, three out of five women respondents stated that CSCs offer meaningful career opportunities through entrepreneurship. In addition to career prospects, most respondents reported that their involvement as VLEs has helped improve their communication abilities, public interaction skills, and problem-solving capacities.

For instance, Rita Dutta (28 years old) shared her experience:

“The Common Service Centre operates as a public and interactive workspace where it is necessary to communicate with a wide range of people. In the beginning, I felt uncomfortable speaking openly with others. However, after several years of working in this environment, I gradually overcame this hesitation, as interacting with rural customers and government officials became a regular part of my daily responsibilities. Working at the CSC has also provided me with an opportunity to establish myself as an independent individual and recognize my own abilities. Earlier, I never imagined that I would be able to work successfully as a Village Level Entrepreneur or manage customer interactions and official procedures independently. At present, I feel encouraged to continue this venture in the long term and expand it by introducing additional services, particularly in areas such as health and education.”

Field observations further reveal that the economic impact of CSC-enabled entrepreneurship is substantial. First, it provides women with an independent source of income, thereby enhancing their financial autonomy. Second, it contributes to the development of new skills and capabilities. Managing a CSC requires digital literacy, communication skills, managerial competence, and administrative abilities. Third, engagement in entrepreneurial activities encourages women to make independent decisions and expands their life choices.

2. Social Impacts

In addition to economic benefits, CSC participation also generates significant social impacts that contribute to the development of women’s capabilities. More than seventy percent of respondents reported that becoming a Village Level Entrepreneur enhanced their social recognition within both family and community contexts. Many participants stated that their role as VLEs increased their dignity, self-confidence, and respect within society. Furthermore, income generated through online business activities enabled them to support their daughters’ education and assert their rights within the family.

Samina Khatun (32 years old), for example, described her experience as follows:

“I have gained social recognition because of this business, which I might not have received otherwise. My villagers benefit greatly from my Centre, particularly women who feel more comfortable visiting my Centre to access various e-services. They address me as ‘madam’ and treat me with respect. It feels very good.”

3. Political Impacts

Political empowerment refers to the process through which power and authority are extended to marginalized and previously excluded groups, enabling them to participate in decision-making processes within families, communities, and governance structures (Khan, 2011; Mandal, 2013). It includes not only voting or contesting elections but also participating in community meetings, remaining informed about public policies, and interacting with governmental institutions.

Women’s participation in such processes is considered an important step toward achieving gender equality. However, the findings of this study suggest that most respondents did not actively engage in political participation. Only a small number of women VLEs reported attending meetings such as the Gram Sabha or interacting with local governance institutions like the Panchayat.

Many respondents explained that they have limited time to participate in such activities due to the responsibilities associated with managing their CSC centres along with other household duties. For example, Urmila Sarkar (28 years old) stated:

“The CSC is a business venture run by individuals; it does not have any direct connection with political parties. Therefore, I have chosen not to engage in political activities, as it is difficult to balance such involvement while managing a business.”

Conclusion

The study highlights that CSC-enabled entrepreneurship has the potential to expand women’s capabilities by creating new economic opportunities and enhancing their agency in rural contexts. Drawing on the Capability Approach, the findings indicate that CSCs not only provide income-generating avenues but also strengthen women’s skills, confidence, and social recognition within their communities. Many women entrepreneurs reported improvements in communication abilities, decision-making capacity, and financial independence, which collectively contribute to broader processes of empowerment. However, the study also reveals certain limitations. Not all women VLEs exercise full control over the centres, as patriarchal norms and family dynamics often shape their level of participation. Moreover, while economic and social empowerment is visible, political participation among women VLEs remains limited. Therefore, for CSCs to function as truly transformative institutions, policy efforts must focus on strengthening women’s digital skills, ensuring greater autonomy in entrepreneurship, and creating supportive institutional and social environments that enable women to fully realize their capabilities and leadership potential.

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