Digital Technology and Women Empowerment in India

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Abstract

Women empowerment can be a significant driver of macro-economic growth and stability in the present and the future. This goal cannot be achieved without the progress of information and communication technologies. Women who are fundamental participants and critical players in all decision-making processes, have tremendous potential because of this advancement. It is imperative that we must include a gender equality viewpoint in all aspects of our work and effectively in digitalisation. Her and women should be given equal opportunity in high-tech education and training. We should collaborate to climate gender barriers in all sectors and promote equal opportunities in ICT related enterprises, among other things.

Keywords: Empowerment, driver, potential, enterprise, digitalisation.

Introduction

The digital revolution holds immense potential to enhance social and economic outcomes, improve productivity, and elevate overall well-being across the globe (World Bank, 2021). Within the commerce and development context, digital transformation serves as a critical driver of inclusive growth, fostering entrepreneurship, market access, and innovation. However, despite these benefits, a substantial digital gender divide continues to persist in developing economies, restricting women from fully participating in and benefiting from digital advancements (UNCTAD, 2022).

Several international and national initiatives—such as the Digital India Programme and UN Women's Empowerment Principles—have been launched to bridge this gap and promote women's participation in the digital economy. Yet, evidence suggests that women remain underrepresented in digital platforms and technology-oriented occupations, irrespective of their country's overall ICT penetration or economic status (OECD, 2020). The gender digital divide is not merely a technological issue but a reflection of broader socio-economic, political, and cultural constraints that influence access, skill acquisition, and employment opportunities in the digital era (Gillwald et al., 2021).

For sustainable and inclusive digital commerce, greater emphasis must be placed on integrating gender perspectives in digital policy frameworks, skill development programs, and data governance mechanisms. Addressing these structural barriers is vital to ensuring that emerging data-driven technologies—such as artificial intelligence (AI), machine learning (ML), and digital finance—contribute equitably to women's empowerment and national economic growth (ILO, 2022). Empowerment not only transforms women's daily lives but also catalyzes productivity, innovation, and long-term economic development, making it indispensable for a nation's overall progress (Kabeer, 2019). In India, rapid technological change and digital workplace transformations have significantly benefited women entrepreneurs, professionals, and workers by improving access to markets, information, and employment opportunities (NITI Aayog, 2021).

Objectives

The papers intends to analyse the different types of women empowerment and the role of digital technologies in achieving the benefits among female folk in order to reduce the gender inequality and accelerate the pace of socio-economic growth in India.

Digital Technologies and Women Empowerment

A number of changes have taken place in the way people communicate, conduct business, and connect because of Information and Technologies, job opportunities in the ICT sector are plentiful, and they include a variety of challenging opportunities of various types. Although intellectual resources are valued more highly than physical resources in the industry, this industry is non-discriminatory. Using ICTs, men and women, minorities, and disabled individuals have received equal work prospects.

Digitalisation can advance gender equality and women empowerment by providing with opportunities to find and share information, access health and educational services, generate income and collaborate with others while also having the ability to have their voices heard.

Economic Empowerment

ICTs contribute to women's economic empowerment by providing chances for women to own and operate ICT projects. Digitalisation enables women to work remotely from their homes while caring for their families ICTs foster an environment conducive to women participating in activities and initiatives to defend their demands and advance their goals. ICTs also provide economic opportunities in terms of finance and financial decision making. Digital financial services enable financial inclusion by bridging the gender divide in account ownership and increasing formal financial activities in terms of both volume and value of transactions. Digitalisation has the potential to create an enabling environment for women's financial products and services to be transparent, inexpensive, accessible, and qualified.

Political Empowerment

People are utilising ICTS in novel ways for networking and political activities. Women and their organisations have strategically employed ICTS to advance their rights. Women's networks are levering new technology to amplify marginalised women's voices. The advent of ICTS encouraged the formation of alternative organisations and non-government organisations (NGOs) to address topics that are not effectively addressed by traditional media. The internet has elevated women's perspectives to the forefront of public discourage, with various venues devoted exclusively to women. ICTS can assist in strengthening women's networks for social and political activism, expanding women's engagement in the political process, assisting women officials in their work, and increasing women's acess to government and its services.

Educational Empowerment

Every country is taking advantage of new technologies to assist and increase training for women and girls in education. This includes using computers, the internet and broadcast media such as radio and television Even though there are still many gender inequalities in education due to conventional domestic life, lack of mobility, and socio-cultural ways of thinking that downplay the importance of women's education, ICTS will be advantageous in promoting women's participation around the world.

Health Empowerment

Women's health programmes at the global, regional and national levels stand to benefit significantly from information and communication technologies. Health promoters in developing nations, such as India, have employed electronic gadgets to broadcast the public's health related information on sexual and reproductive rights. ICTS offer the ability to deliver locally adapted health information to women through community acess points.

Direct Benefit Transfers (DBT)

With the DBT programme, the government is reengineering current delivery processes to ensure better and more timely delivery of benefits through ICT. Benefits are transferred into accurately targeted beneficiaries, bank and postal accounts, preferably seeded with Aadhaar. The programme supports in-kind transfers from the government to individual beneficiaries. To simplify and expedite the flow of information and cash while reducing fraud, the DBT was established. Through DBT and other governance reforms, the government has been able to eliminate duplicate/fake beneficiaries and plug leakages, allowing it to focus on the genuine and deserving beneficiaries instead. The DBT has improved the government system's efficiency, effectiveness, transparency and accomtability and instilled citizens confidence in governance. To accomplish the objective of maximum governance, minimum governance, current technology and Information Technology instruments are utilised. In the government's view DBT is a high-priority and high-focus area.

DBT Government Schemes

- **Anganwadi Services-Honorarium to Anganwadi Workers (AWW) and Anganwadi Helper (AWH)**

Improved working conditions for Anganwadi workers have been made possible by revised joint guidelines issued by the Ministry of Women and Child Development, the Ministry of Rural Development and the Panchayati Raj for the construction of AWC buildings across the country as part of MGNREGS in collaboration with ICDS Scheme. Grants are available under the Swachta Action Plan for drinking water facilities and toilet facilities.

- **Supplementary Nutrition Programme**

The Programme is being run by the Ministry of Women and Child Development to improve women and children's nutritional status. It is a part of the Integrated Child Development Services (ICDS) Programme which is meant to help pregnant women, lactating mothers and out of school adolescent girls who are not in school get the food they need (11-14 years).

- **Scheme for Adolescent girls (AGI)**

The fundamental objective of the Project is to aid, educate, and empower AGS. Aims of the initiative include the following:

  o Students who have dropped out of school are assisted in making a smooth transition back to formal schooling or bridge learning/skill training.
  o They are informed and directed to existing public services such as primary health centres and rural hospitals.
  o Provide opportunities for self-development and empowerment for the AGS.
  o Increase the nutritional and health status of the participants.

- **National Creche Scheme**

It is being implemented as a centrally sponsored scheme by the Ministry of Women and Child Development to provide day care facilities to children (between the ages of 06 months and six years) of working mothers. The scheme provides the following services:

  o Sleeping Quarters in day-care centres
  o For children under the age of three, early stimulation is recommended, whereas pre-school education is recommended for children from three to six years.
  o Nutrients in addition to the primary food source (to be locally sourced)
  o Surveillance of growth
  o Examination of health and immunisation

- **The Integrated Child Protection Scheme (ICPS)**

The Integrated Child Protection Scheme (ICPS) is a centrally sponsored programme launched by the Government of India with the objective of establishing a comprehensive and sustainable protective environment for children, particularly those from disadvantaged and vulnerable backgrounds (Ministry of Women and Child Development, 2022). The scheme emphasizes institutional and community-based interventions through coordinated efforts between government agencies, non-governmental organizations (NGOs), and civil society institutions.

Functioning as an umbrella framework, ICPS integrates multiple existing child protection initiatives under a unified structure—such as the *Juvenile Justice (Care and Protection of Children) Act, 2015*, *Childline 1098 Services*, and *Adoption and Foster Care programmes*—to ensure holistic protection and rehabilitation of children in need of care. The scheme not only focuses on preventing abuse, neglect, and exploitation, but also promotes family-based care, social reintegration, and capacity-

building of stakeholders involved in child welfare.

From a commerce and policy perspective, ICPS contributes to social development and human capital formation by safeguarding children's rights and ensuring their inclusion in the socio-economic mainstream. By addressing child vulnerability through institutional support and community partnership, the scheme indirectly strengthens the foundations of a productive and equitable workforce, which is vital for inclusive economic growth and sustainable development (UNICEF, 2021).

- **Swadhar Greh**

Under the Scheme, Swadhar Grehs are established in every district with a capacity of 30 women to meet the primary needs of women in distress who are without any social or economic support, such as housing, food, clothes, medical treatment and care. The objectives of these Grehs are as follows:

- o To help people rebuild their emotional power, which their experience with unpleasant circumstances has impaired.
- o To offer them legal assistance and counselling for them to be able to take measures towards reintegrating into their families and communities.
- o To help women regain their financial and mental stability
- o To serve as a support system that is sensitive to and responsive to the needs of women in distress.
- o To provide women with the opportunity to begin their lives anew with dignity and conviction.

- **Ujjawala**

The Scheme aims to achieve the following objectives:

- o Preventing the trafficking of women and children for commercial sexual exploitation through social mobilisation and participation of local communities, awareness generation programmes, generating public discourse through workshops/seminars and other similar events, as well as any other innovative activity.
- o Rescue of victims and their placement in safe custody by making it easier to locate and rescue them from the location of their exploitation.
- o To aid victims with both immediate and long-term rehabilitation services, it is necessary to address their basic needs, including shelter, food, clothing, medical treatment, counselling, legal support and guidance, and vocational training.
- o Helping victims reintegrate with their families and society.
- o Victims of cross-border crimes to be recruited with their families.

- **Leveraging Digitalisation to achieve Gender Equality**

Despite the growing number of initiatives aimed at promoting gender equality in the digital era, there remains a pressing need for comprehensive and evidence-based policies to enhance women's participation in the digital economy (UNESCO, 2023). Digitalisation has the potential to serve as a transformative force for women's empowerment by expanding access to education, employment, entrepreneurship, and financial inclusion (World Bank, 2021). However, technology alone cannot resolve the structural and systemic barriers that underpin the digital gender divide. Persistent socio-economic inequalities, gender norms, and institutional biases continue to restrict women's opportunities in accessing, using, and benefiting from digital tools and platforms (OECD, 2020).

To effectively address these challenges, policy interventions must extend beyond digital access and focus on reforming the social and economic structures that perpetuate gender disparities. This involves creating gender-responsive digital policies, promoting equal representation of women in STEM and ICT sectors, ensuring online safety, and integrating digital literacy in national education systems (UN Women, 2022). Legislative measures should also safeguard women's digital rights and support their full participation in the innovation and knowledge economy.

Importantly, there is no universal solution to narrowing the digital divide between men and women.

The causes of gender inequality are multi-dimensional—spanning economic, social, political, and cultural domains. Therefore, context-specific strategies informed by empirical evidence and localized socio-economic conditions are essential for sustainable progress (Gillwald et al., 2021). By combining digital empowerment initiatives with institutional reforms, nations can not only bridge the gender digital gap but also enhance productivity, innovation, and inclusive economic growth.

Suggestions

- The Government should ensure that new technologies priorities, safeguard, and promote women's human rights.
- Ethical frameworks for AL auditing, monitoring, and governance must prioritise gender equality.
- The Government must address the gender data gap both in number and quality while retaining privacy and data safety as top priorities.
- Universities, schools and other educational institutions must equip women and girls for the digital revolution.
- Those who design, develop and use it in decision-making must be educated on women's rights compliant technology.
- Women role models and mentors in STEM must be promoted by policy makers who must address exclusionary policies and terminology
- For women and men to have equal acess to well-paying jobs and professions, companies, particularly in the technology sector, must adopt gender mainstreaming policies.
- Labour market rules that include paid maternity/parental leave and affordable child care must be developed.

Conclusion

India's rapidly changing advanced scene has enormous opportunities for women empowerment. The women empowerment programme promotes women's social and economic empowerment by establishing community-based reserve funds that assist individuals in saving money, obtaining credit, acquiring financial literacy and investing in income-generating enterprises. Additionally, the women empowerment initiatives promote ability development, confidence, acess to data and assets, and community action, all of which help women develop into confident decision makers and leaders in their homes and communities.

Women Empowerment can be a significant driver of macro-economic growth and stability in the present and the future. This goal cannot be achieved without the progress of information and communication technologies. Women, who are fundamental participants and critical players in all decision-making processes, have tremendous potential because of this advancement. Men and women should be given equal opportunity in high-tech education and gender barriers in these sectors and promote equal opportunities in ICT-related enterprises, among other things.

References

1. Anil, K. Rajvanshi (2001): Development of Technology in Rural Areas, Need for New Thinking, Published by CAPART, New Delhi.

2. Agrawal Bina (1995): The Gender and Environment Debate from India in N. Rao, L. Rurep and R. Sudharshan (eds), sites of change: The structural.

3. Gillwald, A., Mothobi, O., & Rademan, B. (2021). *The State of ICT in Africa: Gender and Digital Inequality*. Research ICT Africa.

4. International Labour Organization (ILO). (2022). *Digitalization and the Future of Work: Gender Implications in the Labour Market*. Geneva: ILO.

5. Kabeer, N. (2019). *Gender, Labour, and Development: Re-Examining the Pathways of Empowerment*. Routledge.

6. Mellor, J.W. (1997): Developing Rural India Plan and Practice.

7. Ministry of Women and Child Development. (2022). *Integrated Child Protection Scheme (ICPS): Framework for Implementation*. Government of India.

8. NITI Aayog. (2021). *Empowering Women Through Digital Inclusion: India's Strategy for Bridging the Gender Divide*. Government of India.

9. Organisation for Economic Co-operation and Development (OECD). (2020). *Bridging the Digital Gender Divide: Include, Upskill, Innovate*. OECD Publishing.

10. Saha, Chandana (2003): Gender Equity and Equality study of Girls in Rajasthan, Rawat Publications, Jaipur, PP 326-330.

11. Shariff, Abusaleh (1998) Indian Human Development Report, National Council of Applied Economic Research Oxford Univ. Press, New Delhi.

12. United Nations Conference on Trade and Development (UNCTAD). (2022). *Digital Economy Report 2022: Cross-Border Data Flows and Development*. United Nations.

13. World Bank. (2021). *World Development Report 2021: Data for Better Lives*. Washington, DC: World Bank.