



# Women as Catalysts of Digital Transformation: A Roadmap Towards Sustainable and Inclusive Global Future.

(With reference to the gender digital divide in Tamil Nadu, India)

**Aneesha Babu**

**Research Scholar, Department of Economics, Loyola College (Autonomous), Chennai**

Abstract

The digital backdrop of India has been showcasing commendable capabilities for a developing economy. However, the gender inclusivity in digitalization has been underwhelming given the rapid growth of the sector. In various parts of the world, when given non-discriminatory access to the digital resources, women have manifested praiseworthy rendition of maneuvering tech-driven growth in the economy, fostering efficiency and inclusive growth. This can be propitiously administered to the Indian economy as well to harness the untapped productive segments of the population which unfortunately is dominated by the female echelon. AI-driven tools, fintech solutions and digital trading platforms have all have emerged as pivotal enablers of global market access, particularly for women entrepreneurs in India. By leveraging digital tools and e-commerce solutions, these entrepreneurs can surpass traditional barriers i.e., limited access to capital, market information, and distribution networks.

This paper is effort to understand how women can become catalysts of digital transformation which will not only impact the holistic growth of the economy but also ensure equal opportunities for women to partake in the technological remodelling through targeted technical interventions. The novelty of the study is its attempt to not barely identify women as beneficiaries of the digital revamping but to recognise them as leaders and innovators who are equipped to enhance its possibilities.

The major objectives of the study would be to analyse how AI-driven technology and digital platforms will reshape the job setting for the Indian women and to recommend suggestions to enable them to steer through AI-powered economy. The research will undertake a quantitative approach focusing on the group of women working in the IT and tech industries, entrepreneurs running businesses through e-commerce platforms and gig workers.

**Keywords:** digital, women, sustainable, fintech, AI, Tamil Nadu

## INTRODUCTION

It has not been too long since commerce and trade transposed into an assimilative environment for women. Breaking the social norms and stepping into the global territories of trade were the least concerns when women were being denied basic rights such as equality and freedom. But now that women have been given equal representation in the society through years of struggle and hardships, the next phase would be to revitalize the female strata through targeted efforts making them liberated and self-made.

There have been multitudinous initiatives implemented and still in the execution stages all across the world aiming at equal women participation and building a world for everyone to live in consonance. The aim is not to surpass men and reach the zenith but to ensure the basics such as access to resources are not denied so that no one is left behind. The digital scene across the world is pretty much a clamour when it comes to female participation especially in the developing nations.<sup>1</sup>

The factors repressing the full-fledged integration of technology with people in general may marginally differ from those factors hindering digital growth specifically among the female population. In a country like India, where social stigmas and religious blemishes still hold a pivotal role in certain rural areas, digital literacy of the women might not be their overriding concern. Swiped aside as a secondary component, only after achieving equality, education, freedom and security can the technological upskilling be undertaken.

As per a report published by the World Economic Forum on how women in developing countries can harness e-commerce, a major share of the respondents lacked the technical know-how to use the digital tools or gadgets. This is the primary obstacle in a developing country like India- ‘the lack of digital knowledge’.<sup>2</sup>

Only 4% of the respondents lacked the infrastructural requirements. This means that a vast share of the sample had access to broadband connectivity, but were ignorant or uninterested in e-commerce. There were respondents who even reverted that they weren’t allowed to use it or was told that it was bad/inappropriate for them to use it. These are the types of ignominy that needs to be swiped off from the economy so as to achieve maximum efficiency. Digital literacy

<sup>1</sup> Based on the recommendations of 67<sup>th</sup> session of Commission on the status of women

<sup>2</sup> “How women in developing countries can harness e-commerce”, World Economic Forum

<https://www.weforum.org/stories/2020/03/women-e-commerce-developing-countries/> Accessed January 31<sup>st</sup>, 2025

should be taken seriously when it comes to women empowerment and provision of livelihood. All the initiatives will go in vain if the target respondents lack the skill set required in order to

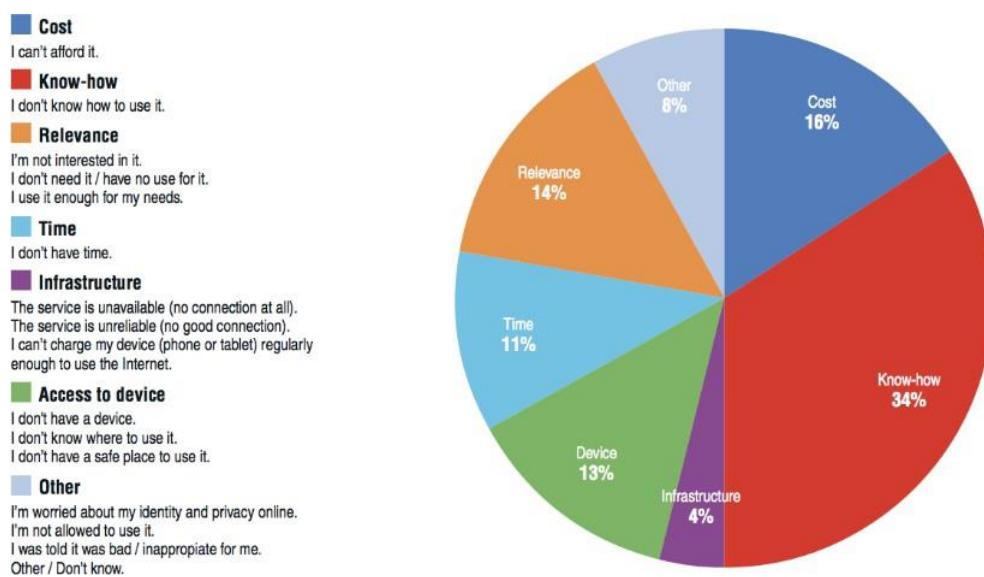


Figure 1: Reasons for lack of digital knowledge

Source: Article in World economic Forum, 2020

If still there is a major setback in terms of technical know-how the educational institutions and current curriculum would be at blame. There is a need for a substantial revolutionising in the educational sector so as to integrate digital technologies with the traditional standards of learning. This was effectuated to an extend with the pandemic which brought to light the indispensable need for digitalisation in the education sector.<sup>3</sup> Women have been victims of social inequality and gender biases for an unfathomable period of time now. Various targeted mediations have been implemented at central and local levels which seems to have not fully been able to render the coveted results. India's structural norms evidently forbid active involvement of women in the labour force due to a variety of reasons such as domain of work, family interference, education, religious beliefs, social stigmas etc.

<sup>3</sup> Based on the reference document prepared for the special regional consultation prior to the sixty-seventh session of the Commission on the Status of Women.

<https://repositorio.cepal.org/server/api/core/bitstreams/417df610-b112-4254-a69f-d6282b3b1f2f/content>

## SYSTEMATIC LITERATURE REVIEW

**Kabeer, N. (2012)**, in his book “Women’s Economic Empowerment and inclusive growth” highlights how the cultural and mobilisation barriers act as an impediment to empowering the women community when it comes to labour force participation. He further goes on to suggest that such hinderances can be overcome by digitally enabling the women and ascertaining access to remote work through the digital platforms.

**The International Labor Organisation’s “World Employment and Social Outlook” (2021)** states that

the gig economy has been showing promising outcomes for increasing the female labour force participation as it offers more flexibility in the work culture.

**Demirgüç-Kunt et al. (2018)** suggests that increased access to digital tools and online e-commerce platforms can help rejuvenate the workforce participation of women mainly in the developing nations where the female labour force patterns are staggering. He further goes on to explain that in various developing economies the ratio of men to women in regard with access to basic internet facilities and mobile phone is 43:37 and in some of the economies such as India and Bangladesh men are twice as likely as women to have access to these technologies. **Goldfarb & Tucker (2019)** gave a detailed analysis on how digital markets drastically reduce the structural norms and biases in women entering the global markets and opens up a vast array of opportunities for female entrepreneurs by eliminating the market entry barriers.

**Russo, N. & Renee (2024)**, explained how digital networking and community building are essential for opening gateways to international trade for the women community. Adequate representation of women entrepreneurs' needs and increased involvement of women in the policy making can have multitudinous effects on the global market access for women.

**Gurumurthy, Anitha et. al., (2019)**, in her paper elaborates how a digital restructuring of the economy can open up economic opportunities for the female population. The agricultural sector employs the largest number of female employees in India. And there has been a pool of measures mobilised for their upliftment. However, these initiatives have not been monumental in bridging the digital gender divide or to ensure that women are given access to technological and financial resources.

**Mishra, Deepak (2024)**, explains how merely having access to digital tools would go in vain if the target group is not fully aware of how to put it into use. There are international level discussions and consultations taking place to help improve the status of women across the globe especially taking into account the sustainable development goals.

**The Ministry of Labor and Employment**, India published an article on Female labour utilization in India (2023) which stated that for 44.5 % of the women,<sup>4</sup> child care and household commitments is the main reason why women are pulled back from the labour market. Assuming the traditional care roles as women's responsibility has decelerated the inclusive and sustainable growth patterns among women, especially in developing nations

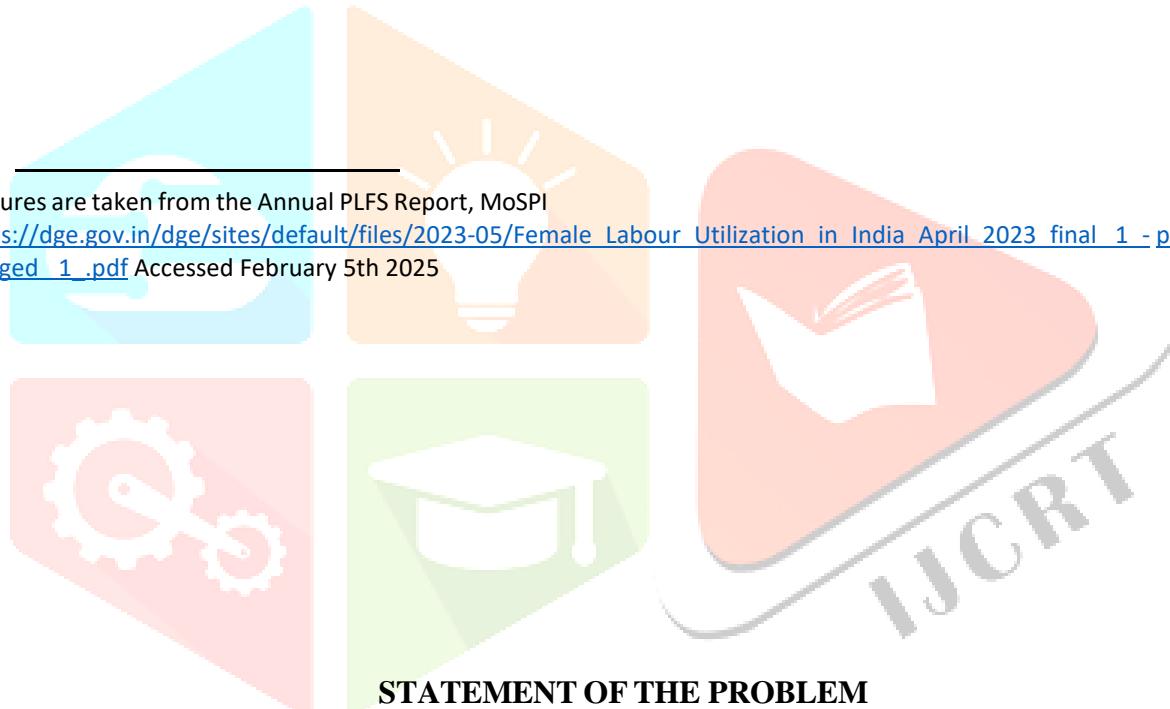
**Kaur, Kawaljeet & Singh, Jaswinder (2016)** highlights how knowledge divide and digital divide are correlated. Among the other determinants, education plays a pivotal role in the sense that literate people have higher chances of acquiring digital knowledge in comparison with the illiterate.

**Maharana, Narayana (2024)**, in his article, laid out that the primary motive if the institutions and the policymakers should be to ascertain that all women are sufficiently equipped to sustain themselves in a digital economy. The pandemic coerced people to seek innovative ideas to continue businesses and this was to a very large extend carried out through the digital platforms. One of the **OECD public governance policy papers** published in 2024 elucidates how women are under-represented in the ICT job platforms and how the digital platforms are shaped by AI biases constraining women to the care givers' figure in

the society and portraying men as the breadwinners and dominant. The paper ponders deep into the issues of gender-based violences (GBV) and marginalisation in the digital platforms discouraging women to actively take part in the digital transformation.

**Rohilla, Amit (2024)** discusses how alignment with the United Nation's Sustainable Development Goals (SDGs) has been a key player in expanding the digital space in India. It discusses the various schemes adopted by the Indian Government such as the Digital India scheme, digital locker, smart cities, digital inclusion etc.

<sup>4</sup> Figures are taken from the Annual PLFS Report, MoSPI  
[https://dge.gov.in/dge/sites/default/files/2023-05/Female\\_Labour\\_Utilization\\_in\\_India\\_April\\_2023\\_final\\_1 - pages-1-2-merged\\_1\\_.pdf](https://dge.gov.in/dge/sites/default/files/2023-05/Female_Labour_Utilization_in_India_April_2023_final_1 - pages-1-2-merged_1_.pdf) Accessed February 5th 2025



### STATEMENT OF THE PROBLEM

Currently an estimated 5.4 billion people, which is approximately 67% of the world's total population have access to digital technologies and tools.<sup>5</sup> This means that over the past 10 years the number of people having access to technology has widely expanded (almost double-fold) from what was before. This data provides statistical evidence on the scope of augmenting digital trade with a greater number of people gaining access over technology day by day. Hence this study plays a central role in analysing how such initiatives may be effectuated.

There is a dire gap in literature that amalgamates gender perspectives into the digital trade and sustainability. This study is an empirical analysis to fill the aforementioned gap in the research field. Moreover, the study holds its novelty by utilising Digital trade as a platform to overcome the structural barriers impeding women to actively contribute to the economy. Digital microfinancing tools, AI driven technology, gig economy are all left largely unexplored which will be scrutinized through this research. The aim of the study also includes to propose suggestions to policymakers and government and social

advocates to construct inclusive digital economy models to ensure equal gender participation in the online platforms.

## OBJECTIVES

1. To examine the degree of gender digital divide in Tamil Nadu and to identify the prime roadblocks limiting the active engagement of women in the same.
2. To present framework and proposals to policy makers and to lay groundwork for further studies on the topic.

## METHODOLOGY

The study is an attempt to analyse the extend of women participation in the digital space including education, workplace and business and to peruse the different strategies that can be adopted to revamp technological built of the nation through increased participation of the female community. A quantitative perspective was adopted to gather ideas and deduce results. A well- structured questionnaire was circulated through both online and offline modes of data collection. Google Docs was used for the online mode whereas the other modes included face-

<sup>5</sup>“Digital Trade for Development”

Figures refer to an official article prepared by the staffs of the International Monetary Fund (IMF), the Organisation for Economic Co-operation and Development (OECD), the United Nations Conference on Trade and Development (UNCTAD), The World Bank, and the World Trade Organization (WTO), 2023.



to- face interviews and telephonic interviews. Data was collected from 118 women residing and working in Chennai over a period of 25 days. The respondents were carefully chosen so as to only include women studying in the STEM fields and working in the IT arena. The secondary sources of data used included journals, peer reviewed research papers, Tamil Nadu official government website, statistical data from international databases, policy reports etc.

The study also includes a qualitative perspective by analysing case studies of women leaders who have emerged successful through digital platforms and technological progress, showcasing a perfect example to the other women.

## MODEL DESCRIPTION

Digital inclusion can have limitless possibilities not just from a technological viewpoint but as a catalyst for many social, economic and cultural affairs. The women in India are habitually accustomed to various cultural and social barriers restricting them from achieving their true potential. In India, merely

the tag of being a ‘woman’ are inciting them to live an inferior lifestyle, when in theory they are entitled to equal constitutional rights (**Nussbaum, Martha C., 2012**). With the world pacing at lightspeed digital literacy plays an inevitable role in uplifting women.

The digital transformation should start at the grass root levels where schoolkids are educated on the various digital tools and enlightened about the future that technology holds. India has secured a global second rank in the number of women graduating in STEM fields<sup>6</sup> yet the IT career trajectory in India is unfavourable and drooping for a number of reasons. **Bhattacharyya, Asmita & Ghosh, Bhola Nath (2012)** stated that gender relations and stereotypical imagery of women often lead to glass ceiling at the IT workplaces, compressing them to lower levels in the job ladder. The stress often exposes them to risks of divorces, societal alienation and troubled family lives, the fear of which pulls back women to pursue career in IT.

However, digital entrepreneurship or self- employment has produced admirable results for Indian women by remodelling the traditional gender roles and socially empowering them (**Verma, Shelly et al., 2024**). Women are now able to reach a wider target audience and pursue

<sup>6</sup>Oliss, Brendan et al., “The Global Distribution of STEM Graduates: Which Countries Lead the Way?” (Center for security and emerging technology, November 27, 2023)

<<https://cset.georgetown.edu/article/the-global-distribution-of-stem-graduates-which-countries-lead-the-way/>> Accessed March 20, 2025.

their passion by exploring the various digital platforms and fintech solutions. This is further validated through a qualitative analysis of various case studies.

### **CASE STUDY 1- CHINU KALA (FOUNDER- RUBANS ACCESSORIES)**

Chinu Kala left behind her home and family at an early age of 15 with nothing but Rs. 300 and a day’s clothing. The tenacity and perseverance of a 15-year-old girl has now landed her as the founder of the 10-crore worth jewellery brand ‘Ruban’s’.

Her initial investment of Rs. 3 lakhs and digital knowledge helped an awe- inspiring growth of the company through the online channels. Facebook, Instagram and Amazon were the primary platforms where the products were familiarised to the customers. She is an exemplar of how leveraging e-commerce and technology can help struggling women to break the social stigmas and pursue their dreams.

### **CASE STUDY 2- MEESHO (AN E- COMMERCE PLATFORM)**

Meesho with its early growth in 2015-16, started off as a platform to boost online sales in India. But today it is burgeoning with major investors such as Facebook, SoftBank Vision Fund etc. and accommodates more than 15 million empowered women entrepreneurs.

Meesho revolutionised internet commerce by enabling people to become self- reliant through the digital

tools. With almost 80% of the sellers being women, it has become synonymous to a business model moulding women to a greater purpose than being entwined in their conventional home making and caregiving responsibilities. It has also taken up a CSR initiative of providing digital upskilling training to create a tech savvy era of women entrepreneurs.

### **CASE STUDY 3- ROSHNI NADAR MALHOTRA (CHAIRPERSON, HCL)**

Roshni Nadar Malhotra has created history by becoming the first woman ever to lead a listed IT company in India- HCL technologies. Since she became the chairperson in 2020, the annual turnover of the company has spiked to over \$10 billion primarily focusing on digital solutions through Artificial intelligence and cloud computing.

She is an ideal role model who inspires women across the world who seeks to pursue a career in the digital field. Moreover, Roshni has also invested in many initiatives to encourage STEM education for girls and to increase digital opportunities for women in India's IT industry. Shattering all the stereotypes, she has risen up to the zenith, strengthening the company's position as an international tech leader.

### **CASE STUDY 4- BAREFOOT COLLEGE- INDIA (SOLAR MAMAS)**

The Solar Mamas scheme under the umbrella program of Barefoot India is a sustainable technology driven initiative led by women. The program trains every interested woman, including those with no or minimal education or technical knowledge. Once the training period is completed, the women will return back to their villages where they will be installing solar energy powered appliances such as lamps, water heaters etc. Women from over ninety countries across the world have been reaping the benefits of the scheme and becoming financially independent and at the same strengthening the renewable energy source of the nation.

These are case studies from four different paths of life, one where a woman manoeuvres her life towards success by making the best use of her digital skills and tools, the other where technology has provided a safe space for women to put their entrepreneurial skills into action, another, where being educated and digital literacy has equipped a woman to be financially independent and valued at workplace and finally a scheme that has ensured digital and financial inclusion to the rural underprivileged women community. Though these are chapters from different walks of life, it all leads to the coveted output of 'women being catalysts of digital transformation'.

### **RESULT ANALYSIS**

The primary data for the study was collected through a well-structured questionnaire and the information thus received was analysed and classified to make informed decisions regarding the digital transformation in Tamil Nadu. Furthermore face- to- face interviews with home- makers and professional experts in technological field were conducted to gather deep qualitative insights on the topic.

The respondents were classified into 4 major categories based on the primary data collected through online questionnaires:

1. Students
2. Working professionals (IT/ Corporate)
3. Entrepreneurs
4. Freelancer/ Gig worker

Home makers were specifically excluded from the online data collection process since their digital footprints may highly vary from that of the working-class framework. Including them might increase the skewness of the findings. However, interviews were carried out with such home makers to gather insights about their ideology of digital transformation.

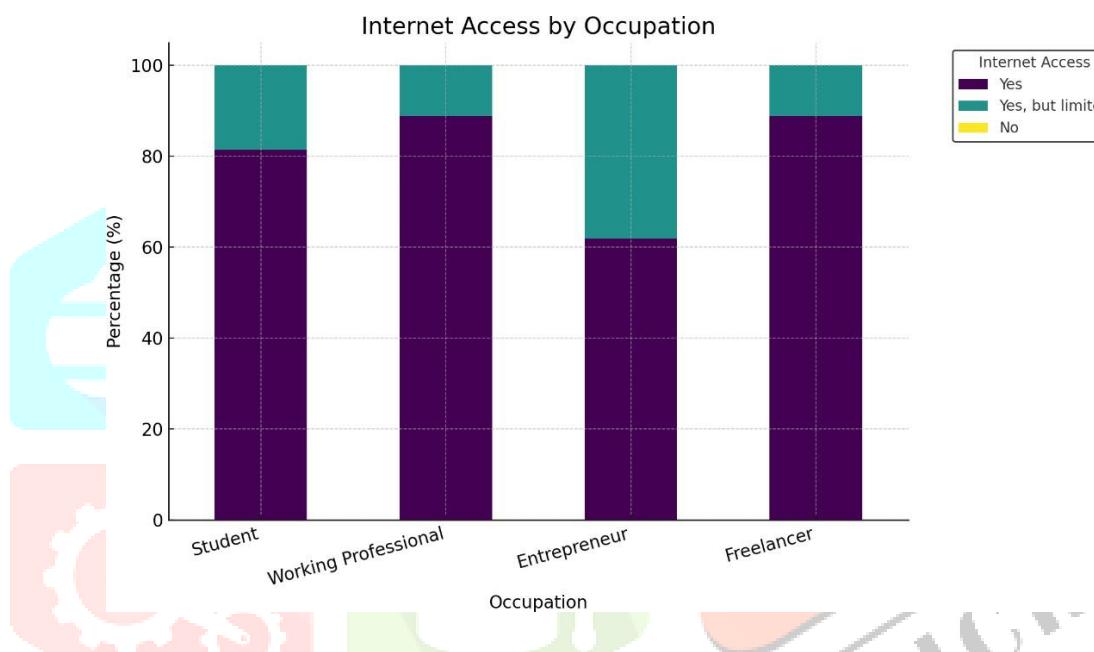


Figure 2: Internet access by occupation

Source: Primary Data, 2025

The above diagram shows access to internet based on the occupation of the respondents. It was a comforting to see that out of the entire data all the respondents had access to internet although it was limited due to connectivity issues for some of them. Figure 2 shows that working professionals have the highest levels of full access to internet followed by freelancers, students and entrepreneurs respectively.

The entrepreneurs had the most issues with the network connectivity when it came to digital transformation. Such connectivity issues can discourage them from adopting digital platforms to establish their businesses which can hugely impact the technological transformation that the economy is looking forward to.

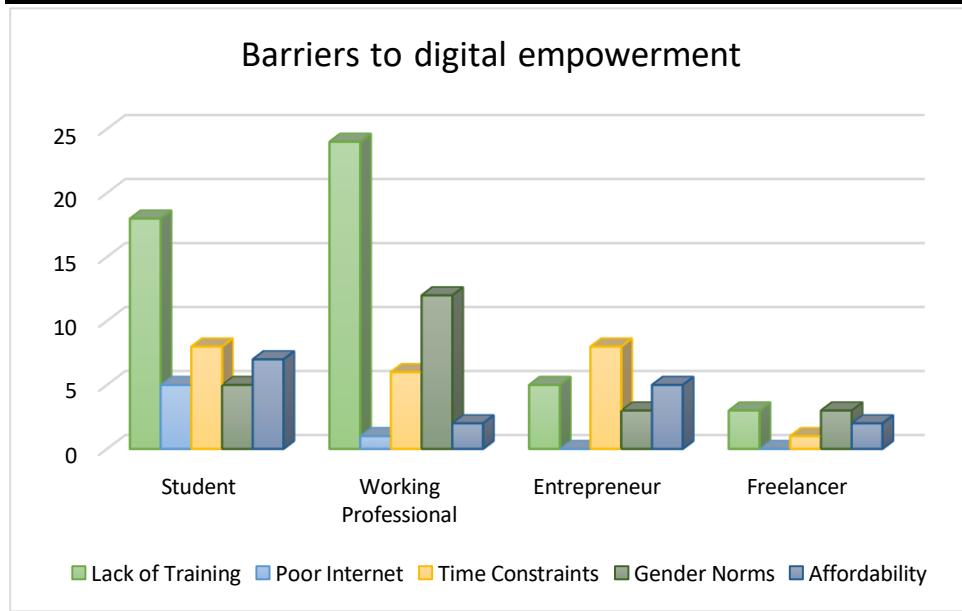


Figure 3: Barriers to digital empowerment

Source: Primary Data, 2025

Figure 3 shows the major barriers interdicting active digital participation of women. For both students and working professionals, it is the lack of training that inhibits them from expanding their digital prowess. A major share of the entrepreneurs felt that it was the lack of time to acquire digital knowledge that is acting as a constraint to digital empowerment whereas most of the freelancers and the gig workers felt that the gender norms act as glass ceiling that restricts opportunities to exhibit their digital capabilities.

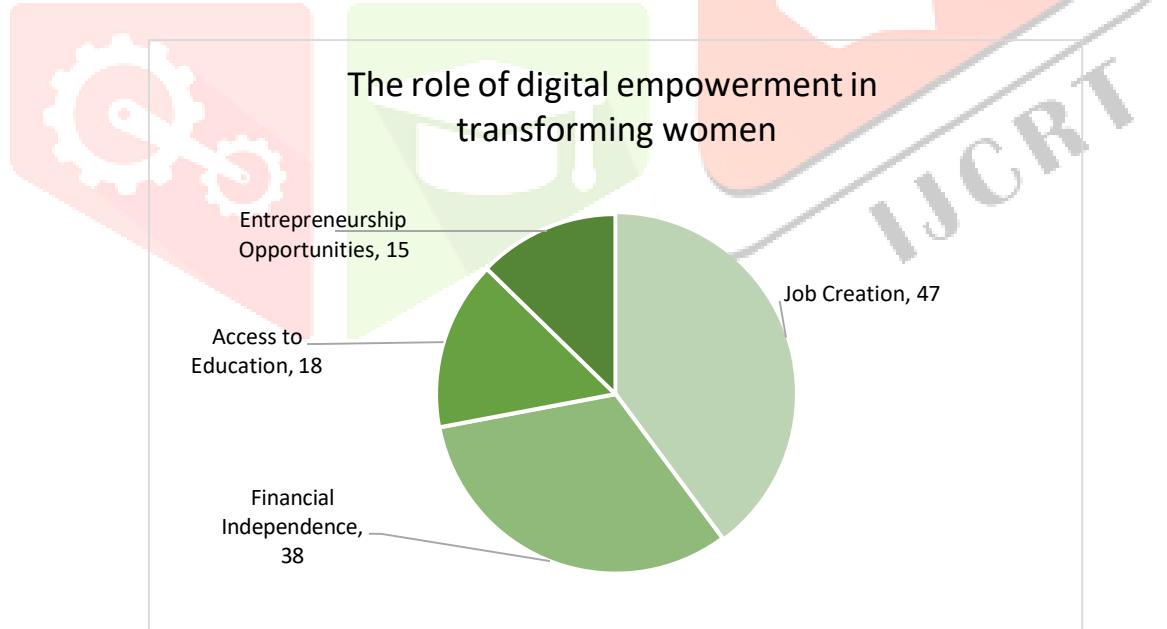


Figure 4: The role of digital empowerment in transforming women

Source: Primary Data, 2025

Figure 4 shows that a major proportion of the respondents felt that digital empowerment would help in the creation of employment opportunities and give them financial independence.

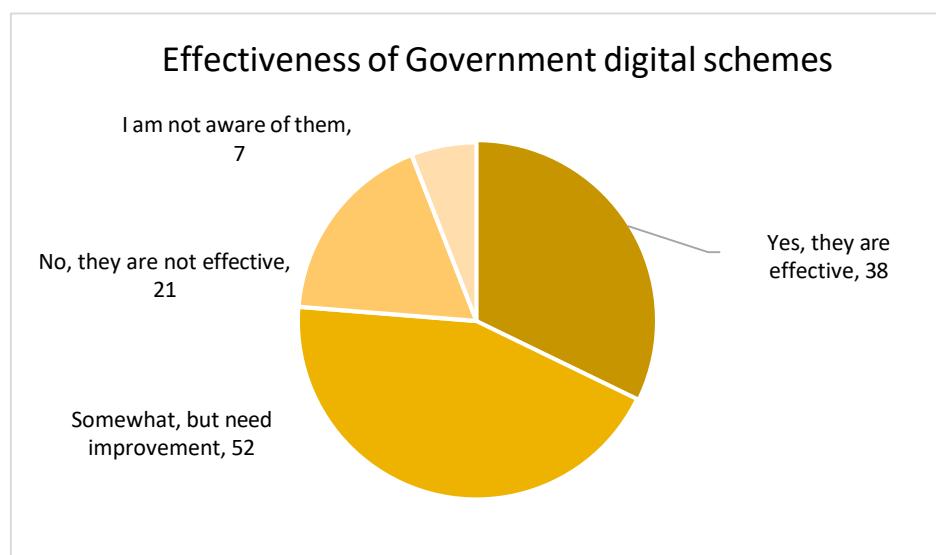


Figure 5: The role of digital empowerment in transforming women

Source: Primary Data, 2025

When asked about the effectiveness of the Tamil Nadu government's digital initiatives such as Naan Mudhalvan, Free laptop scheme, Startup TN etc. most of them responded that they somewhat knew about the initiatives but felt like it still needed certain improvement as shown in Figure 5. This means that the resources are not fully tapped at the government level to explore the full potential of digital transformation.

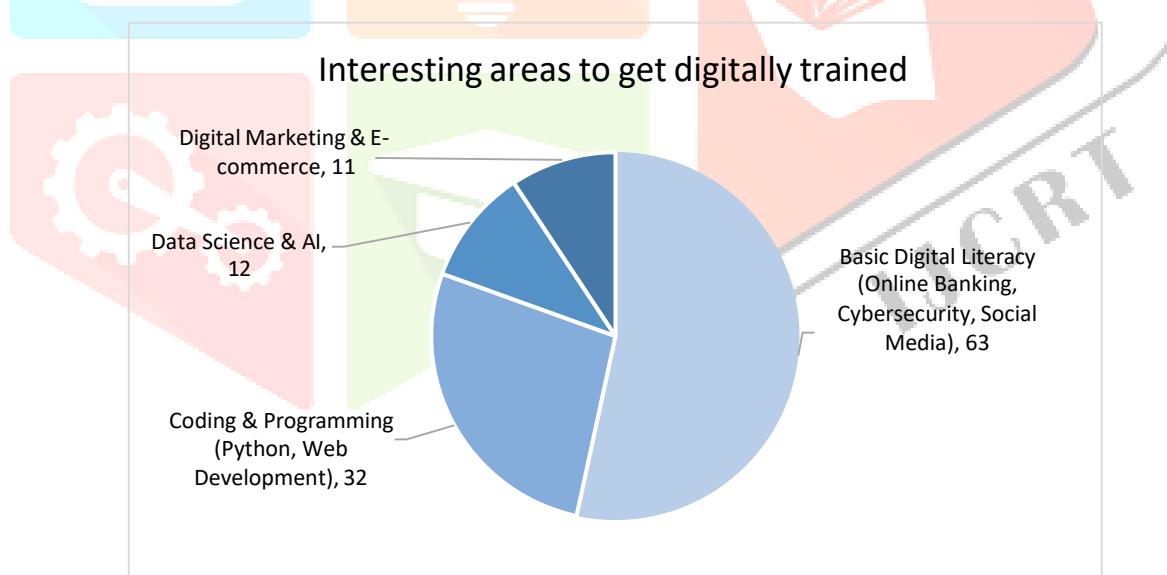


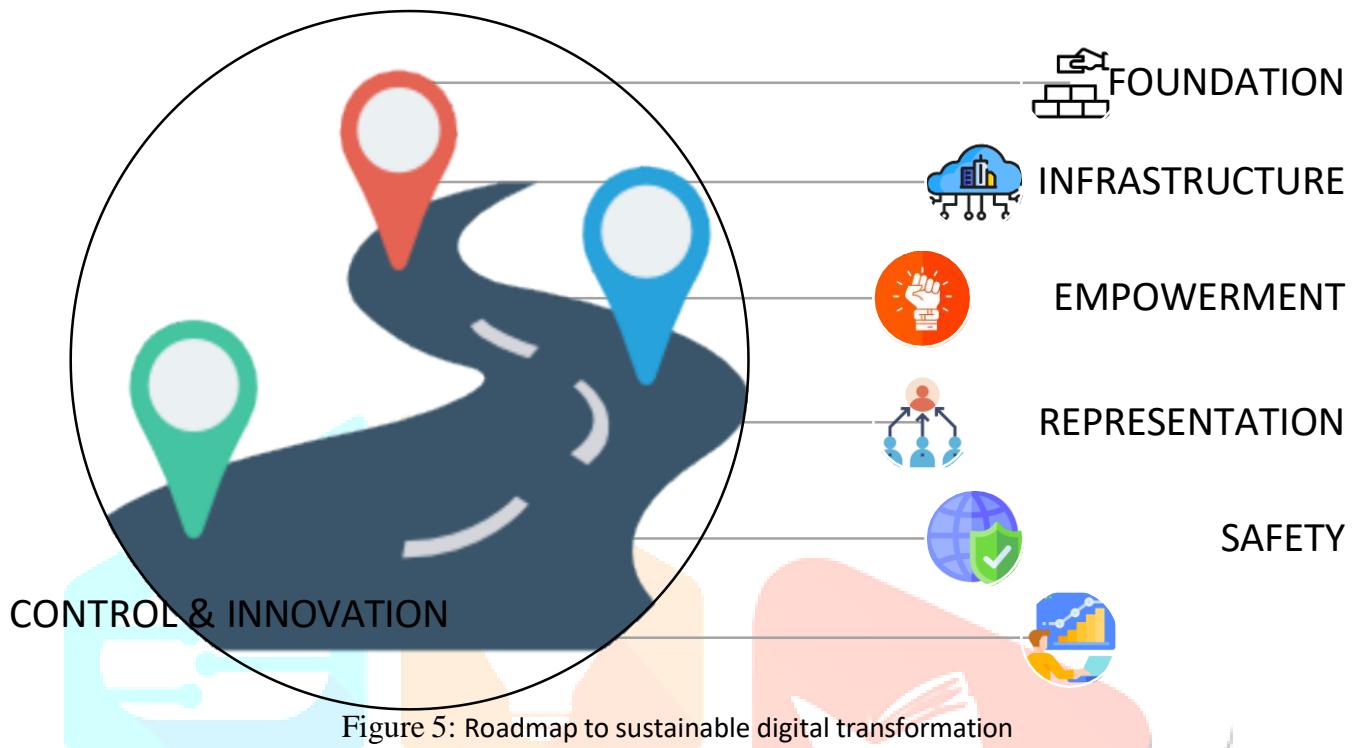
Figure 5: The role of digital empowerment in transforming women

Source: Primary Data, 2025

The respondents were asked if at all free digital training session were to be arranged which topics would they be interested in learning. 63 of the total 118 responded that they are interested in learning the basics of digital studies. It throws light into the fact that most of the women aren't still confident to adopt the digital tools and doesn't feel fully equipped to take part in the digital transformation process.

## POLICY SUGGESTIONS

There is a dire need to understand the current digital stance of the nation especially in the rural and semi-urban areas. Though basic digital infrastructure such as faster network, smartphones, laptops etc. are readily available, meagre possession of these have been confused as complete digital sovereignty and technical adeptness. It is important to understand how this infrastructure can be used efficiently to extract its full utility. The following roadmap may serve as a keystone to achieve the same.



It is a six-step process that finally helps in the creation of a long-term plan to achieve the goal of sustainable digitalisation with women as catalysts. The foundation is the key step towards preparing women and girls to become digitally empowered through education. The target group for this can be broadly divided into 2 with differentiated set of curriculum and syllabus for undertaking the same.

1. School/ college going students who already have access to attaining knowledge from trained professionals.
2. Elderly women lacking institutional infrastructure or formal systematic learning system.

Training for the former group may be easy going and nonchalant whereas the latter group might be demanding or challenging when it comes to acquiring digital literacy. This calls for 2 sets of training pattern and structure that would educate both the groups focusing in their potential and capabilities. While students may be trained professionally with a more rigorous syllabus, the elderly need to be educated so as to empower them to survive in a digitally transformed society. Though the ultimate goal is 'technological empowerment' the paths for reaching them might be different for different groups and that success comes with acknowledging it.

Infrastructure refers to setting up of a digital base to ease the transformation. This can be in the form of easy and remote access of network or equipment that fosters digital transition. These resources must be

equi-accessible to prevent the digital divide. Provision of digital accessories and tools at subsidised rates to women and on the spot training to equip them to use it can help elevate the digital impoverishment.

Empowerment is the next step towards digital transformation. This is the most crucial step as it liberates women from the illusion of technical proficiency. It calls for analysing where are the policy reforms and targeted interventions lagging in terms of technological upgradation. The government can form public private partnerships (PPPs) to facilitate fintech solutions to the innovative business needs of women entrepreneurs to encourage grass root level adoption of digital tools. Freelancers and gig workers can be provided opportunities to showcase their unique technological ideas through exhibitions and digital conventions.

There are numerous government schemes such as Naan Mudhalvan, Startup TN etc that can help women to reap the benefits of digital upgradation. But such schemes are still in the dark to a major proportion of women. Strategies should be framed to educate women about such schemes for them to benefit from it. This may be done with the help of various offline methods such as mobile units announcing such schemes to various targeted areas, pamphlets explaining the same to be distributed along with the newspapers etc. These methods will help those strata of the society who aren't still connected to the digital grid.

After empowerment comes representation. Once the women are digitally equipped or empowered it is important to give them the space to be represented. Years of oppression has crippled women from attaining their full potential. This step can be completed only with the help of government and other regulatory bodies ensuring equal representation of capable women in all fields including technology by employing stringent policies and regulatory framework restricting any gender-based distinction in workplaces or educational institutes. Companies being incentivized for adopting gender inclusive hiring practices, scholarships for increased enrolment of girls to the STEM fields etc. are all initiatives to ensure representation.

Safety in the digital space is yet another roadblock in digital transformation. The increased cases of bullying and cyber attacks has created a sense of fear among the women community often destructing their trust in the digital platforms. Moreover, the AI algorithms that uses historical data can be prone to gender biases which may lead to misrepresentation of women in certain areas. The redressal of this issue can be done through awareness drives and seminars, proper enforcement of law for cyber criminals and an effortless redressal system.

Without innovation the digital growth can remain stagnant. Hence development necessarily comes with a need for innovation. Dr. Tessy Thomas (the missile woman of India), Nidhi Pant (Co-founder, Science for Society (S4S) are few of the many living examples of extraordinary women who innovated the science field. It is as important to analyse the benefits or downfalls of the schemes and the performance in digital era while being appreciative of the accomplishments. Periodical surveys and field work can help for the same.

## CONCLUSION

Digital transformation is a long and challenging process that requires all available resources to be put to the best possible use. Imagine all these days only a little higher than half of the resources were used to achieve a tech savvy economy. Women who constitute almost half the Indian population were knowingly or unknowingly left behind from achieving this transformation. Even with the oppression and seclusion, there are many powerful women who have proved that technology is not just for some but for all. With the correct targeted interventions and curtailing of the societal prejudices it is possible that women can create a more digitally connected community as leaders, creators, gamechangers and not just merely remaining as beneficiaries of the mediations.

## BIBLIOGRAPHY

1. Basu, K. (2020). Digital literacy and the gender gap in India. *Economic & Political Weekly*, 55(12), 34–41.
2. Bhattacharyya, A., & Ghosh, B. N. (2012). Women in Indian information technology (IT) sector: A sociological analysis. *IOSR Journal of Humanities and Social Science*, 3(6), 45–52. <https://www.iosrjournals.org>
3. Cambridge University Press. (2012). Women and human development. <https://doi.org/10.1017/CBO9780511841286.002>
4. Chaudhary, R., Gupta, A., & Agarwal, A. (2020). E-commerce and women empowerment: A study of Amazon and Etsy platforms in India. *Journal of Business Research*, 112, 319–331.
5. Chen, G., & Jayadeva, V. (2020). The impact of digital financial services on women's economic empowerment. Center for Financial Inclusion.
6. Demirgüç-Kunt, A., Klapper, L., Singer, D., Ansar, S., & Hess, J. (2018). The Global Findex Database 2017: Measuring financial inclusion and the fintech revolution. World Bank Group.
7. Economic Commission for Latin America and the Caribbean (ECLAC). (2023). Gender equality and women's and girls' autonomy in the digital era: Contributions of education and digital transformation in Latin America and the Caribbean (LC/MDM.64/DDR/1/Rev.1). Santiago.
8. Ganguly, S. (2023). A review of women's engagement with digital labour market platforms. Ideas for India. <https://www.ideasforindia.in/topics/productivity-innovation/a-review-of-women-s-engagement-with-digital-labour-market-platforms.html>
9. Goldfarb, A., & Tucker, C. (2019). Digital economics. *Journal of Economic Literature*, 57(1), 3–43.
10. International Labour Organization (ILO). (2021). World employment and social outlook 2021: The role of digital labour platforms in transforming the world of work. International Labour Office.
11. Kabeer, N. (2012). Women's economic empowerment and inclusive growth: Labour markets and enterprise development. International Development Research Centre.
12. Kumar, V., Bhaskaran, S., Mirchandani, D., & Shah, M. (2021). The impact of social media on women entrepreneurs: A study of Instagram and Facebook. *Digital Business Review*, 8(3), 211–228.

13. Maharana, N., Das, G. P., & Bh, B. U. (2024). The role of digital technologies in supporting women entrepreneurs during and after the pandemic: A case approach. *Journal of Risk and Financial Management*, 17(10), 468. <https://doi.org/10.3390/jrfm17100468>

14. McKinsey Global Institute. (2018). The power of parity: Advancing women's equality in the United States. McKinsey & Company.

15. Organisation for Economic Co-operation and Development (OECD). (2021). Bridging the digital gender divide: Include, upskill, innovate. OECD Publishing.

16. Organisation for Economic Co-operation and Development (OECD). (2024). Harnessing the green and digital transitions for gender equality: Insights from the 2024 OECD Forum on Gender Equality (Public Governance Policy Paper No. 61).

17. UN Women. (2022). Gender equality and the digital economy: Opportunities and challenges. United Nations Women.

18. UN Women. (2024). Placing gender equality at the heart of the Global Digital Compact: Taking forward the recommendations of the sixty-seventh session of the Commission on the Status of Women (H. Molinier, Lead Author). <https://www.unwomen.org>

19. United Nations Conference on Trade and Development (UNCTAD). (2021). Trade and development report 2021. UNCTAD.

20. Verma, S., Pandey, D., Kaur, H., & Appasaba, L. V. (2024). Role of digital entrepreneurship in social empowerment of women entrepreneurs in India: An empirical study. *Journal of Informatics Education and Research*, 4(3), 4172. <http://jier.org>

