

21**Digital Inclusion and Rural Women
Entrepreneurship: From Exclusion to
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Abstract

Digital inclusion is now emerging as an essential aspect in promoting women's entrepreneurship, specifically in rural women's entrepreneurship. Although research attention has been drawn towards the topic of women's entrepreneurship, little attention has been paid to the issue of digital exclusion of rural women entrepreneurs. This paper highlights some of the barriers to using digital technologies in rural women entrepreneurship and provides a comprehensive theoretical framework that explains the impact of the digital resource and capability gaps on the outcomes of entrepreneurship. In this paper, the role of social constraints, inadequate infrastructure, education limitations, economic problems and technology fear in hampering women from utilizing digital technologies for entrepreneurship purposes is highlighted. Based on literature review and secondary source analysis, the present paper draws attention towards the promising role of digital inclusion in enhancing market linkage, financial inclusion, performance and empowerment of rural women. Moreover, this paper presents some policy recommendations for improving digital capabilities.

Keywords: Rural Women Entrepreneurship, Digital Divide, Digital Capabilities, Women Empowerment.

Introduction

Women entrepreneurship has emerged as a potent means of inclusive development and social transformation in the developing countries like India. Although the share of women in the total population is almost fifty percent in India, their entrepreneurial capability has remained largely untapped, particularly in the rural parts of the nation. Historically, the rural women in India have participated in agriculture-related activities, ancillary activities, and domestic micro-enterprises. However, the role played by women in the economic sphere of the country has

remained informal and unrecognized, along with being constrained by many challenges (Datta & Gailey, 2012; Tulika, 2024). Women entrepreneurship has recently gained considerable significance in terms of promoting women empowerment and rural development.

Background of Women Entrepreneurship in India and Bihar

The process of women entrepreneurship development in India is slow and uneven across different areas. According to Singh (2017) and Tulika (2024), the rural women entrepreneurs face obstacles in the shape of illiteracy, poverty, low mobility, and inadequate market linkages. However, the measures in the shape of SHG models, microcredit programs, and livelihood mission programs have enabled rural women to pursue productive business activities. In Bihar, significant advancements have taken place in the area of women entrepreneurship due to the joint contributions of associations such as JEEVIKA. The empirical studies carried out in Bihar reveal that the rural women entrepreneurs are increasingly participating in small business enterprises in the areas of food processing, tailoring, dairy farming, and agriculture, yet their business activities are survival-oriented and local in character (Kumari et al., 2025; Prabhakar, 2021).

Importance of Digital Technologies for Modern Entrepreneurship

The emergence of digital technologies has transformed entrepreneurship in ways such that access to information, markets, finance, and networks can be achieved without being limited to local conditions. Digital technologies such as mobile Internet, digital payment system, online marketplaces, and social media marketing are crucial components in helping entrepreneurs become efficient, visible and competitive in their ventures. According to research done in India, digital technology has the ability to greatly improve the entrepreneurial skills of women through decreased dependency and limitations to mobility (Dale, 2020; Singh & Kaur, 2021).

Status of Digital Access in Rural Areas

While India continues to evolve technologically, there still exists a considerable digital divide in rural areas. According to one study, rural women continue to experience several levels of digital exclusion because of the lack of access to devices, poor connectivity, digital illiteracy, and patriarchal norms that prohibit their access to technology (Tulika, 2024; Singh, 2017). District-level studies conducted in Bihar indicate that while there is a growing rate of access to mobile phones among rural women, they have not been effectively utilizing the benefits of digitalization for entrepreneurship (Prabhakar, 2021; Kumari et al., 2025). Thus, there persists a digital divide that prevents rural women entrepreneurs from engaging in the digital market fully.

Problem Statement

While digital tools have provided multiple opportunities for promoting entrepreneurship among rural women, there are considerable differences concerning access, skills, and productivity. These differences have limited the development and sustainability of the business ventures of rural women.

Research Gap

Previous research covers rural women entrepreneurs and their socioeconomic problems. But no holistic theoretical and conceptual framework exists regarding digital exclusion problems in relation to rural women entrepreneurship. Previous research has been predominantly empirical and regional in nature without any conceptual analysis, especially in Indian states such as Bihar.

Objectives of the Study

The study aims to:

- To study the development of women entrepreneurship in rural areas in India and Bihar.
- To discuss the importance of digital technology in modern-day entrepreneurship.
- To understand the digital inclusion divide for rural women entrepreneurs.

Scope and Significance of the Study

This research is highly pertinent for policy making and practices in India, particularly within the ambit of Digital India and rural livelihood missions. It is important for policymakers to understand that digital inclusion is a long-term and continuous phenomenon which requires institutional support. The programs designed to enhance entrepreneurship among rural women require digital inclusion dimensions to be incorporated within it through access, skill development, confidence, and opportunity creation. This research will add value to an enhanced knowledge about digital inclusion gap among rural women entrepreneurs.

Literature Review

Kumari and Ghosh (2025) discuss women entrepreneurship as an important source of economic development across the globe but also stress that women underrate their entrepreneurship potential due to such challenges as gender bias, limited resources, and financial constraints. In Bihar, women face additional problems associated with gender policies, limited education, and deeply rooted patriarchy. Despite efforts made by the government and non-government organizations to promote women's entrepreneurship, proper execution still needs improvement. Economic motivation, family composition, age, and informational factors have a considerable impact on women's entrepreneurial activities.

Pundhir S and Gupta V (2025) The current literature shows an increasing trend towards rural women switching their employment status from working as employees to becoming entrepreneurs for sustainable development. Researchers have pointed out that although there are favourable policies from the government and the use of technology is increasing, there are still obstacles faced by rural women in terms of becoming entrepreneurs. They have pointed out the important role played by NGOs in supporting these women.

Kumari Deepali (2024), studies in the field of women entrepreneurship reveal several socio-economic, cultural, and structural barriers preventing women from actively participating in businesses. These include such problems as insufficient education, limited financial accessibility, lack of managerial skills, gender stereotypes, and expectations that women should play a housewife role. On the other hand, some studies point out new possibilities for women thanks to the government's initiatives, technological advancements, and greater awareness.

Kumar S.A. and Tripathi B.P. (2024) conducted a study on the impact of microfinancing, bank linkage program, and other government schemes on the economic empowerment of women, especially in rural areas of Bihar. The positive effects mentioned in previous studies include higher earnings, better access to financial services, and fewer loan defaults among women. Nevertheless, difficulties such as limited access to the market, lack of skills development, and problems due to gender discrimination in accessing credit facilities are also documented in the literature. Although there is enough national literature on this topic, there is very little on how Bihar women behave in the credit sector.

Chand S. and Sharma R. (2023) According to existing literature, entrepreneurship and technology play crucial roles in driving socio-economic transformations in the country. The existing literature shows that through access and digital literacy, women can start businesses, and this helps in acquiring information and markets. Literature stresses that women's entrepreneurial ventures are important in creating job opportunities and innovation and help bring about a change in gender stereotypes.

Kumar Suresh and Sobana D. (2023) examine the shifting status of women entrepreneurs in India by examining how they have moved from their traditional roles within the home to taking part in economic activities. It has been observed from prior research that societal barriers, lack of resources, and gender inequality hindered women's engagement in entrepreneurial activity. However, modern research highlights the constructive impact of government initiatives, education, and societal perceptions on promoting women entrepreneurship. Scholars additionally acknowledge women's contribution to job generation, economic development, and empowerment.

Saranya S. and Chandrasekar K. (2021) explained that women entrepreneurs have to equip themselves with necessary knowledge, skills, and competencies to overcome entrepreneurial challenges effectively. Motivation, leadership skills, and innovation have been identified by previous studies as important factors which determine the success of women entrepreneurs. It is widely argued in literature that businesses headed by women contribute considerably to socio-economic development and require digital competencies amid technological advancement. The use of digital platforms helps to open up new market opportunities for rural women entrepreneurs, even though lack of digital awareness still poses significant barriers.

Chintu A.K. (2019) highlighted the role played by women in entrepreneurship in Bihar where socio-economic factors such as scarcity of resources, illiteracy, and absence of freedom are some of the factors which pose a barrier. From an analysis of the existing literature, it can be seen that the problem of personality development for entrepreneurs, shortage of training institutions, as well as the lack of financial and institutional support, is still one of the most important problems facing the area. Despite the launch of national schemes aimed at empowering women, there are still some outstanding problems in Bihar.

Sinha S. (2018) Previous literature shows that digitalization and globalization have greatly impacted the structure of employment in India, as evidenced by programs like “Digital India,” “Aadhar” and digitized banking and other financial transactions. Yet, studies reveal that female workers continue to be mainly engaged in informal, low-skill jobs. It is posited that disparities in education, training, finance, and property ownership have widened the gender digital divide.

Rani J. and Sinha S.K. (2016), their studies conducted on entrepreneurship among women in India have found several problems associated with women who want to venture into businesses. For instance, lack of support from the family, patriarchal tendencies, low self-confidence, and poor education level pose difficulties for women when trying to develop businesses. In addition, lack of funding, lack of infrastructure, and poor training facilities are some of the problems faced by women entrepreneurs. Moreover, women encounter mobility issues, harassment, and strict laws.

Mishra V.K. (2014) acknowledges that women represent an important but untapped resource in the economic system, with their role often going unnoticed due to societal norms. There is significant emphasis on women entrepreneurship as one of the primary tools for empowerment in an economic setup dominated by men. Due to globalization, women are gradually moving out of the domestic sphere to engage in entrepreneurship as a means of financial independence. Yet, studies reveal various obstacles in this process, especially for states such as Bihar.

Research Methodology

- **Research Design**

This study utilizes the theoretical/conceptual research design framework in exploring the problem of the digital divide among rural women entrepreneurs. The reason for choosing this type of research design is that it is appropriate when the goal is conceptual rather than empirical.

- **Nature of the Study**

This research paper is qualitative in nature. The study intends to analyze the academic literature of women entrepreneurs and also provides an exploratory review for understanding the digital exclusion barriers faced by rural women entrepreneurs in the Bihar state.

- **Sources of Data**

The present study is wholly based on secondary data gathered from various research papers, articles, books, journals, government reports, websites and accessed through databases such as Google Scholar, INFLIBNET Centre and reputable Indian journals. Only those literatures that pertain to rural women entrepreneurship and digital inclusion were used in the study.

- **Method of Analysis**

The research methodology used for the study was that of qualitative analysis based on the examination of secondary data. The literature available along with the policy papers of the government was examined through the technique of content analysis and thematic analysis. The data was grouped under various categories like digital access, digital literacy, infrastructural challenges and policy measures.

- **Limitations of the Study**

The results obtained through this research are entirely based on the literature. The lack of primary field data has made it difficult to obtain information about how rural women use digital technologies.

Conceptual Understanding of Digital Inclusion Gaps

The term digital inclusion can be defined as an indication of how far individual people can make use of information technologies effectively to achieve socio-economic development. In India, the meaning of digital inclusion has changed from being based merely on infrastructure access to encompassing issues of skill development, usage and empowerment. In earlier days, digital policies and programs focused primarily on providing more widespread access to the internet in India, but according to the views of Indian scholars, access does not necessarily guarantee inclusion, especially when it comes to the case of rural women (Gurumurthy & Chami, 2014). The advent of mobile internet services in addition to government programs such as Digital India connected digital inclusion with governance, delivery

of services and entrepreneurship. Rural female entrepreneurs remain excluded because of their low level of digital literacy, sociocultural constraints and lack of supportive institutions (Nair & Prasad, 2020).

Digital inclusion is multi-faceted and can be defined based on several dimensions. Firstly, access refers to the availability of internet connectivity, devices and electricity supply. For rural women, access is restricted whereby they share access to digital tools, thus cannot independently utilize these tools (Sarkar & Pal, 2021). Secondly, it is the issue of digital skills and literacy. Rural women do not undergo formal education in utilizing digital resources, limiting their ability to conduct payments, marketing and business management using technological means. Lack of these skills prevents the efficient utilization of the resource (Bhatnagar & Jain, 2022). The third aspect pertains to digital usage that entails the effective use of digital technology within entrepreneurship activities. While simple communication through email and other online resources has been embraced, advanced application is hampered due to poor understanding. Lastly, there are institutional and cultural constraints that pertain to gender, mobility, time and digital distrust. Such non-technical constraints contribute immensely to digital exclusion. Based on these perspectives, digital inclusion for rural women entrepreneurs is:

The access, capacity, skills and institutional support that facilitate rural women to utilize digital technologies efficiently in their entrepreneurial decisions, market interactions, financial transactions and business growth.

The inclusion of digital technology helps significantly in improving the rural entrepreneurial ecosystem by helping female entrepreneurs access wider markets, digital finance services, government programs and networks. Research conducted in India indicates that digitally empowered women-owned businesses exhibit efficiency and resiliency (Bhatnagar & Jain, 2022).

Rural women entrepreneurs refer to women who live in rural areas and who are responsible for organizing economic activities in their communities, which include micro and small-scale businesses using available resources within their environment (Government of India, 2015).

Considering ecosystems, digital inclusion ensures collaboration among women entrepreneurs, banks, self-help groups and other supportive bodies. Yet, the problem of the digital divide persists, leading to the exclusion of women living in the countryside from digital marketplaces and ensuring economic inequality. Therefore, overcoming the issue becomes crucial for developing inclusivity among entrepreneurs and promoting rural sustainability in India (Nair & Prasad, 2020).

Conceptual Framework of Digital Inclusion Gaps

This theoretical framework is designed to show how different digital inclusion gaps impact rural women's entrepreneurship. Based on Indian literature regarding

digital inclusion gaps and gender, this framework utilizes a multidimensional perspective. Digital inclusion gaps are not seen as individual hindrances to entrepreneurship; instead, they are considered related constraints that affect entrepreneurship.

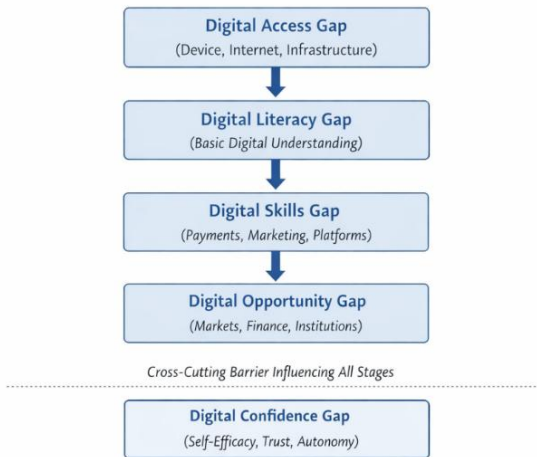
These are the different elements of this framework:

- **Digital Access Gap:** It can be defined as the unequal access and control of the digital instruments including internet connectivity, electrical power, cellular phones or smart phones. Female entrepreneurs from the countryside often experience secondary or shared access to digital devices which restricts them from being self-reliant and frequent usage of digital technology. While access is the cornerstone of digital inclusion but alone it is not enough for entrepreneurship (Gurumurthy & Chami, 2014).
- **Digital Literacy Gap:** Digital literacy gap implies low literacy regarding the usage or handling of the digital devices which include using smartphones, mobile applications and retrieving essential information from the internet. The female entrepreneurs from the countryside possess limited digital literacy as they rely more on informal education. This results in their inability to communicate on digital media platforms and makes them lack in confidence regarding the usage of technology (Sarkar & Pal, 2021).
- **Digital Skill Gap:** The digital skill gap is the unavailability of advanced digital skills of digital marketing, digital payment, digital commerce, and digital record keeping. Rural women may be digitally skilled but do not have digital entrepreneurial skills, which hinder the conversion of technology into business (Bhatnagar & Jain, 2022).
- **Digital Confidence Gap:** Digital confidence implies low self-confidence and fears regarding mistakes, cybersecurity threats and reliance on other people due to the absence of knowledge of digital technology. Various reasons, including gender bias and societal or cultural norms, reduce the confidence level of women entrepreneurs in rural areas (Gurumurthy & Chami, 2014).
- **Digital Opportunity Gap:** Digital opportunity gap means limited access to digital entrepreneurial opportunities like online trading, digital financial services, and governmental portals. Rural women face structural constraints and informational differences that limit their full potential to leverage digital spaces, despite adequate access and digital literacy (Nair & Prasad, 2020).

This model demonstrates that each of the five factors has a high level of interdependence. The digital access gap functions as a barrier to entry since there can be no digital literacy or digital skills if there is no digital access. Digital literacy enables initial interaction, but entrepreneurial gains are not realized without higher levels of digital skills. Digital confidence acts as the intermediary factor between skills

and use. The digital opportunity gap appears to be the result of the compounding impact of the other gaps. Despite efforts to fill any of the gaps individually, the lack of institutional support and market connections can make entrepreneurial integration difficult.

Digital Inclusion Gaps in Rural Women Entrepreneurship



Source: Author's conceptualization based on Gurumurthy & Chami (2014), Nair & Prasad (2020), Sarkar & Pal (2021); Bahtangar & Jain (2022).

Barriers to Digital Inclusion in Rural Women Entrepreneurship

India is progressing fast when it comes to digitization. However, digital inclusion for rural women entrepreneurship remains to face many barriers. It should be noted that such barriers consist not just of one type of issue. They comprise social, economic, educational and structural barriers as well (Gurumurthy & Chami, 2014).

- **Infrastructural and Access Barriers**

Lack of adequate digital infrastructure is still a major obstacle. Limited internet connectivity, power supply and poor network coverage in the countryside hamper regular digital use. Even if there is connectivity, the poor quality of networks impedes using digital applications required for entrepreneurship activities (Sarkar & Pal, 2021).

- **Digital Literacy and Education Barriers**

Inability to acquire education and digital knowledge limits digital inclusion greatly. Rural female entrepreneurs do not have basic digital literacy skills such as knowing how to use applications and obtain information from the Internet. Digital literacy initiatives tend to concentrate on generic skills that are inadequate for entrepreneurship (Bhatnagar & Jain, 2022).

- **Digital Skills Gap**

Apart from general literacy, rural women entrepreneurs are confronted with a dearth of digital business skills. Skills such as digital payment, digital marketing, digital platform management and digital documentation skills are usually lacking. This hampers the integration of technology into business (Sarkar & Pal, 2021).

- **Socio-Cultural and Gender Norm Barriers**

The patriarchal culture and traditional gender roles still serve as barriers to women's digital engagement. Low autonomy and social restrictions limit women's exploration of digital technologies (Gurumurthy & Chami, 2014).

- **Digital Confidence and Psychological Barriers**

Digital Confidence Shortage is a Significant Barrier. The fear of committing errors, the risk of online fraud, and poor self-efficacy hinder digital engagement. Reliance on intermediaries to conduct digital transactions hinders trust-building and increases vulnerability (Bhatnagar & Jain, 2022).

- **Institutional and Policy Barriers**

Institutional gaps also hinder digital inclusion. Despite government efforts to empower through digital means, awareness amongst the rural women entrepreneur is still low. Institutional inefficiencies such as excessive bureaucracy, poor local training facilities, and lack of coordination among institutions affect digital policies' efficacy (Nair & Prasad, 2020).

- **Market and Opportunity Constraints**

Digital market access and entrepreneurship opportunity is still uneven. The low exposure to digital marketplaces and poor infrastructure and lack of mentoring hinder women from benefiting from digital platforms to scale their businesses. In the absence of robust ecosystem connections, digital inclusion alone cannot guarantee successful entrepreneurship (Sarkar & Pal, 2021).

Impact of Digital Inclusion on Women Entrepreneurship

Digital inclusion is very instrumental in promoting women's entrepreneurship, especially for those living in rural settings, which have faced traditional constraints such as lack of mobility, limited market and financial inclusion. Through digital inclusion, rural women gain the capacity to conduct and grow their entrepreneurial activities in a manner that would otherwise not be possible without technology.

- **Efficiency in Business Processes:** Digital technology aids rural women entrepreneurs in managing their inventory, tracking their sales, maintaining record keeping, and communicating with their clients effectively.
- **Market Access and Networking:** Socialmedia, e-commerce websites, and mobile applications like WhatsApp can help rural women entrepreneurs

access the market outside their region and limit dependency on intermediary channels.

- **Financial Inclusion:** Digital financial transactions, online banking, digital loans and digital insurance provide easy access to finances for rural women entrepreneurs.
- **Access to Information and Supply Chains:** Digital inclusion can facilitate access to information about pricing, demand, raw material, training schemes, and other government schemes.
- **Empowerment and Independence:** Digital inclusion can make rural women entrepreneurs feel empowered and independent.

Secondary Data Insights and Mini Case Examples

Table A: Gender divide in mobile internet connectivity in India

Aspect	Value
Internet adoption by women on mobile phones	37%
Gender Gap in using mobile internet	Women 33% less likely

Source: Based on GSMA report 2024/25 ETGovernment.com

Interpretation: The above table indicates an enduring gender disparity with respect to the utilization of internet-based technology, with Indian women being far less connected online than their male counterparts, hence limiting their ability to connect with the global marketplace.

Table B: Gender gap in mobile and smartphone ownership

Aspect	Women	Men	Gap
Mobile ownership gap	Women 14% less likely	Men higher	14%
Smartphone ownership	Women 14% less likely	Men higher	14%

Source: GSMA Mobile Gender Gap Report 2025

Interpretation: A 14 percentage point gender gap in smartphone usage implies that despite the presence of the necessary infrastructure, there are fewer devices available for women who wish to engage in digital entrepreneurship.

Table C: Internet usage by rural women and rural men in India (2020-2024)

Year	Rural Women	Rural Men
2020	28%	48%
2021	31%	50%
2022	33%	51%
2023	36%	52%
2024	37%	52%

Source: Statifacts data summary statifacts.com

Interpretation: As illustrated in the table above, both rural men and women in India have recorded an increase in their usage of the internet between 2020 and

2024. Despite this improvement, however, women have always lagged behind men, thus making it difficult for women to effectively engage in digital activities.

Table D: Digital Inclusion and Literacy Scenario in Bihar

Aspect	Bihar
Internet Accessibility (approx.)	28%
Women who used internet ever (NFHS)	20.6% of women have ever used internet
Female Literacy (2011 census)	51.5%
Bihar rural digital divide	31%

Source: C3 India, Working Towards Bridging the Gender Digital Divide in Bihar (2021), NFHS-5 data analysed by India Spend, Census of India 2011 / MoSPI, State-level digital analysis (Manu Mayank, 2025)

Interpretation: In Bihar, digital exclusion is very high in that only one in five females have used the internet.

Table E: Digital Literacy Levels and Usage Patterns in India

Aspect	Value
Household smartphone ownership	59.2% (53% rural; 70% urban)
Internet Use: Rural vs Urban	53.6 rural; 74% urban
Gender & Youth digital usage gap	13% gap in rural areas

Source: NSSO CAMS data summary

Interpretation: At the national level, rural areas are far behind urban areas when it comes to devices and internet use, and rural women are even more marginalized than rural men.

Case 1: JEEVIKA Women Entrepreneurs in Bihar

The JEEViKA (Bihar Rural Livelihoods Promotion Society) has been instrumental in promoting women-owned microenterprises using SHGs. It has helped increase access of rural women to banking facilities, mobile phones, and digital infrastructure. Nonetheless, the inclusion of women in the use of digital facilities is inconsistent because most women do not have the required knowledge and skills necessary to use digital payment systems and accounting practices. The reason why only one person in the group handles digital activities on behalf of other members is due to the lack of knowledge and fear of making errors (Nair & Prasad, 2020).

Case 2: Digital Payment Adoption among Rural Women Micro-Entrepreneurs

The usage of digital payment modes like UPI and mobile wallets is contributing to financial inclusion amongst the rural women entrepreneurs of India. The increasing use of digital payments for receiving payments from customers is being seen amongst women running small businesses such as retail trade, dairy activities, and home-based activities. Yet, several women use help from either their

husbands or other third parties for using digital payment modes. Fear of frauds and low technical abilities limit the trust of women in making payments digitally. Thus, digital payments become dependent on the support of others (Bhatnagar & Jain, 2022; Gurumurthy & Chami, 2014).

Discussion

Rural women entrepreneurship has progressed from being an activity out of necessity to being an opportunity-based micro and small enterprise with the assistance provided through self-help groups and livelihood missions. Nevertheless, this has been unevenly achieved in backward states like Bihar.

As per the analysis, technology has emerged as an enabling factor for entrepreneurship as it facilitates the availability of financial services, market access, information and benefits from the government schemes. Mobile banking, digital payments and online tools can improve the performance of the business while reducing intermediaries. At the same time, many digital exclusion aspects exist which are limiting the participation of women entrepreneurs in rural India. The digital exclusion involves lack of awareness, skills, confidence, opportunities and access to information and digital devices (Gurumurthy & Chami, 2014; Nair & Prasad, 2020).

Based on the theory, it can be concluded that technology adoption is socially situated and not technology driven (Gurumurthy & Chami, 2014). Digital interventions need to consider the skills related to digital transactions, digital marketing and bookkeeping in addition to capacity building of women regarding their use. Additionally, self-help groups can be used as an effective platform for skill development and mentoring.

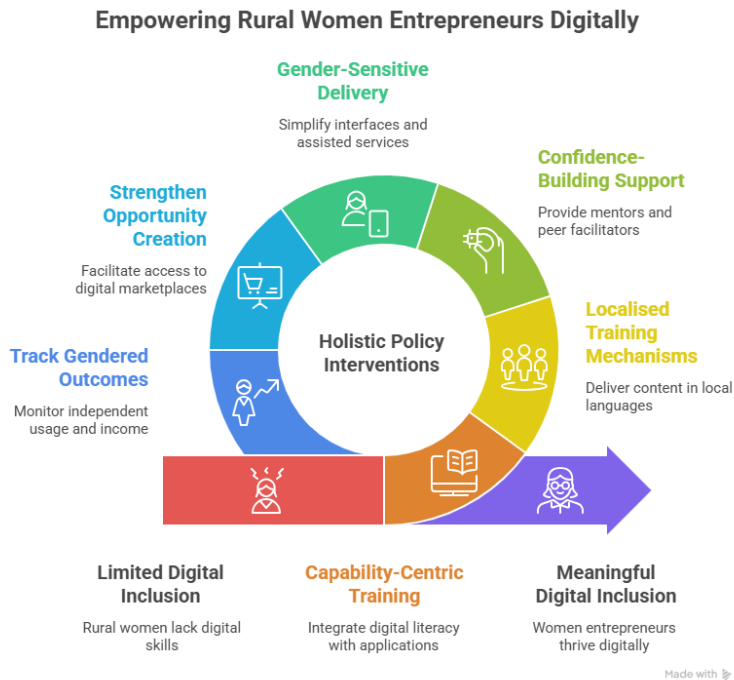
Policy Recommendations

Digital inclusion gaps in rural women entrepreneurship necessitate coordinated and gender-responsive policies. In light of the conceptualisation of digital inclusion gaps, the following policy suggestions are made to improve rural women entrepreneurship in India, particularly in states like Bihar.

- Digital policy needs to shift from access to capabilities by emphasizing digital literacy and enterprise-level skill sets for rural women entrepreneurs (Sarkar & Pal, 2021).
- Digital training programs should become institutionalized based on the literacy level of rural women (Nair & Prasad, 2020).
- Confidence-building mechanisms should be embedded in digital policies to help reduce the fear associated with technology and encourage its use (Gurumurthy & Chami, 2014).

- Gender-sensitive services should be promoted through simplified interface and assistive digital assistance from both the financial institutions and digital service providers.
- There is need for partnership between the financial institutions, digital platforms, and women livelihood projects for increased participation in digital financial activities.
- Policies should aim at generating opportunities through improved access to digital marketplaces, e-procurement, and e-business portals.
- Monitoring and evaluation of gender-sensitive digital outcomes should be part of the policy.

To conclude, effective policy interventions must adopt a comprehensive approach to include infrastructure, training, confidence building, institutional support as well as opportunities.



Conclusion

In this regard, the current study conceptually explored the changing dynamics of women entrepreneurship in rural India, particularly in relation to the state of Bihar, and the effect of digitalization of the process of entrepreneurship. The findings suggest that although digitalization of rural entrepreneurship in India has

provided rural women entrepreneurs with enhanced access to the markets, financing, and information channels, there exist critical digital inclusion issues among the group of female entrepreneurs. These issues go beyond mere lack of digital access facilities and encompass inadequate digital literacy, skills, confidence and opportunities.

Another finding of the current analysis is that digital inclusion issues among rural women entrepreneurs in India may be understood using a multi-dimensional conceptual framework, which views such gaps as interdependent and inter-related barriers to digitalization and not individual problems. Thus, this conceptual framework takes into consideration not only digital access gaps but also digital literacy gaps, skills gaps, confidence gaps and opportunities gaps. Such an approach allows for a better understanding of how digital initiatives in the field of entrepreneurship tend to achieve low levels of success among rural women in India.

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