

## Skill Development for Women in the Gig Economy: Emerging Trends in India

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### Abstract

The world economy has shifted its paradigm to all-inclusive, digital and gig economy. This study seeks to investigate the development of skills among women in the gig economy with the aim of identifying emerging trends in the field. Using the descriptive-analytical research design and recent secondary data, this study identifies five dominant trends in the field. These trends include the proliferation of platform-specific micro-credentialing and short-cycle digital training, the convergence of digital, entrepreneurial, and financial skills into hybrid competency clusters, the rapid expansion of remote, home-based, and cloud-enabled gig work, the rise of social commerce, content creation, and influencer-led micro-enterprises as alternative income streams, and the growing incorporation of AI-enabled tools and algorithm-driven work allocation systems. It is found that these trends contribute to the polarization of skills, with those with digital adaptability being the main beneficiaries. Though the efforts being made to ensure the sustainable inclusion of women in the gig economy, disparities still exist. It is concluded that the future development of skills in the field should be informed by the trends in the field to ensure the sustainable inclusion of women in the gig economy.

**Keywords:** *Gig Economy, Women Empowerment, Skill Development, Employment, Gender Inequality, Workforce, Economic Inclusion, Sustainable Livelihoods*

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### 1. Introduction

The rapid expansion of the gig economy has significantly reshaped employment patterns in India, offering flexible, technology-enabled work opportunities across diverse sectors such as ride-sharing, food delivery, and digital freelancing. This transformation is closely linked with the growth of digital platforms, smartphone penetration, and changing labour market preferences toward non-traditional employment structures. In the Indian context, the gig economy is increasingly viewed as a viable avenue for employment generation, particularly for populations that face barriers in accessing formal jobs (Choudhury et al, 2024). There is a key role of education in empowering women through the various skill development initiatives. Women are gradually entering this ecosystem due to the flexibility it offers in balancing work and domestic responsibilities. However, the extent of their participation remains limited due to persistent socio-economic constraints and skill deficits. The lack of digital literacy, excessive use of social media lead to digital stress at time losing the focus on jobs and careers (Gaikwad and Bhattacharya, 2024). The need to examine women's inclusion in this emerging labour market has gained scholarly attention, especially in relation to empowerment and economic independence. As highlighted by NITI Aayog (2022), the gig workforce in India is expected to expand significantly, creating new opportunities for women workers. This shift necessitates a deeper understanding of how structural changes in employment can support inclusive growth. Consequently, the role of skill development becomes central to enabling women's meaningful participation in the gig economy.

The skill development plays a crucial role in enhancing women's employability and productivity within the gig economy particularly in a digital-first work environment where competencies determine

access to opportunities. The gig economy relies heavily on skills such as digital literacy, communication, problem-solving, and platform-specific technical expertise, making it essential for women to acquire and upgrade these capabilities. It is necessary to learn and adopt new technologies such as artificial intelligence, machine learning to upgrade and grow. Despite the increasing availability of gig opportunities, many women face barriers due to inadequate training, lack of awareness, and limited access to skill-building resources. Government initiatives such as Skill India and Digital India have aimed to bridge this gap by promoting inclusive skill development programs targeted at marginalized groups. In addition, private sector interventions and online learning platforms have contributed to the expansion of accessible training opportunities. According to Kannan and Raveendran (2019), the informal nature of employment in India often limits the scope of skill acquisition, thereby affecting income stability and career progression. The integration of structured training with gig platforms can significantly improve women's participation and outcomes. The study highlights the importance of aligning skill initiatives with the evolving demands of digital labour markets. The gig economy, while offering flexibility, often reinforces existing inequalities if adequate policy support and institutional safeguards are not in place (Sundararajan, 2020). A comprehensive approach that integrates skill development, policy support, and gender-sensitive strategies is necessary to empower women in the gig economy. This study seeks to explore these dimensions by analysing emerging trends and identifying pathways for sustainable inclusion.

## **2. Background of Study**

The emergence of the gig economy in India represents a structural transformation in labour markets characterized by short-term, flexible, and platform-mediated employment opportunities. This transformation has been driven by rapid digitalization, increasing internet accessibility, and the proliferation of mobile-based applications that connect workers to demand-driven tasks across sectors. The gig economy has gained prominence as a significant contributor to employment generation, particularly in urban and semi-urban areas where platform-based services are expanding rapidly. The background of this study is rooted in understanding how this emerging employment model intersects with gender dynamics in India. As highlighted by Bhandari and Sahu (2022), the expansion of gig work in India has opened new employment pathways but also raised concerns regarding inclusivity. This growth creates a compelling context to examine the preparedness of women to engage in such work. Government initiatives such as Skill India and Digital India have attempted to bridge this divide by promoting inclusive training programs and digital empowerment strategies. However, disparities in education, access to technology, and socio-cultural norms continue to influence the extent of women's engagement in skill development programs.

According to Srivastava (2021), labour market inequalities significantly affect women's employment opportunities and skill acquisition in emerging sectors. This highlights the importance of examining the background conditions that shape women's access to skills and employment opportunities. The integration of skill development with gig economy platforms thus forms a critical area of study. While gig work offers flexibility that can accommodate domestic responsibilities, it also exposes women to risks such as income instability, lack of social security, and occupational insecurity. The informal nature of gig employment often limits access to benefits such as health insurance, job security, and career progression. As noted by Deshpande (2020), gender-based inequalities in labour markets continue to shape women's economic participation and outcomes in India. It becomes essential to examine how skill development can mitigate these challenges and enhance women's participation. This study aims to build upon this background to explore emerging trends and identify pathways for sustainable inclusion of women in India's gig economy.

## **3. Problem Statement**

The rapid expansion of the gig economy in India has created new employment opportunities characterized by flexibility, autonomy, and platform-based engagement; however, women's participation in this sector remains significantly constrained due to persistent structural and skill-related barriers. While gig work has the potential to empower women by offering income-generating opportunities that can be balanced with domestic responsibilities, the lack of adequate digital literacy, technical competencies, and access to relevant training programs limits their effective entry and progression within this ecosystem. Moreover, socio-cultural norms, gender biases, and unequal access to resources further exacerbate these challenges, resulting in lower representation of women in high-value and skill-intensive gig roles. As observed by Gupta and Kapoor (2023), the gig economy in India presents uneven opportunities, with gender disparities influencing participation patterns and income outcomes. There is a pressing need to examine how skill development initiatives can address these barriers and enhance women's participation in the gig economy. The evolving digital labour market in India reflects increasing precarity, which disproportionately affects women workers and limits their economic stability. These challenges highlight a significant gap between the potential of the gig economy as an inclusive employment model and the actual experiences of women workers (Chakraborty, 2022). Consequently, it becomes essential to critically analyse the role of skill development in mitigating these challenges and promoting equitable participation. As highlighted by Bhattacharya and Sarkar (2021), gender inequalities in emerging labour markets persist despite technological advancements, indicating the need for targeted and context-specific interventions. This study seeks to bridge this gap by analysing the relationship between skill development and women's engagement in the gig economy, while identifying emerging trends, challenges, and opportunities.

#### **4. Objectives of Study**

- To examine the structure and growth of the gig economy in India with specific reference to women's participation
- To explore emerging trends and opportunities for women in the gig economy in India
- To assess the impact of skill development on income generation, job performance, and career progression of women in the gig economy
- To suggest suitable solutions and policy measures for strengthening skill development and promoting inclusive participation of women in the gig economy.

#### **5. Research Methodology**

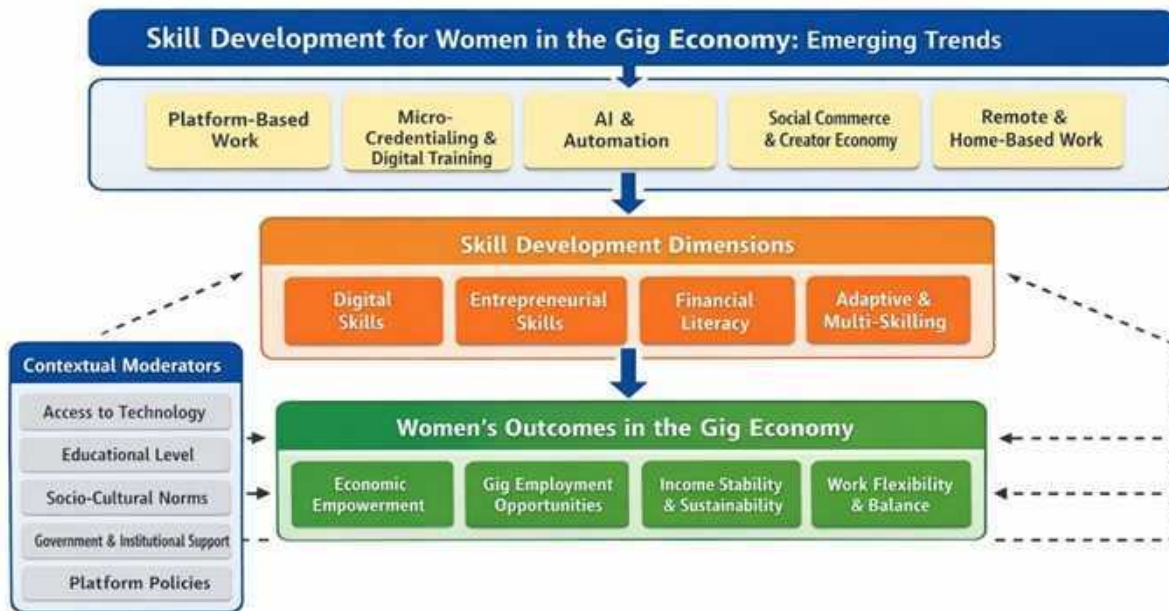
The study adopts a descriptive and explanatory research design to examine the emerging trends in skill development for women in the gig economy. The descriptive component is used to systematically outline the evolving nature of gig work, key skill requirements, and participation patterns, while the explanatory approach helps in analyzing the relationships between emerging trends and women's economic outcomes. This methodological approach ensures a comprehensive understanding of the structural, technological, and socio-economic factors influencing women's engagement and empowerment in the gig economy.

#### **6. Discussion and Analysis**

The conceptual framework explains how emerging trends in the gig economy act as primary drivers influencing skill development among women, which in turn determines their economic and employment outcomes. Specifically, trends such as platform-based work expansion, micro-credentialing, AI integration, social commerce growth, and remote work models create new skill demands that necessitate the development of digital, entrepreneurial, financial, and adaptive multi-skilling capabilities. These skill dimensions function as a mediating mechanism through which women are able to access gig opportunities, enhance income potential, and achieve economic empowerment and work flexibility. However, the strength and effectiveness of these relationships are shaped by

moderating factors such as access to technology, education level, socio-cultural norms, government support, and platform governance structures. Thus, the framework establishes a structured causal pathway where emerging trends influence skill development, which subsequently impacts women's participation and sustainability in the gig economy, while contextual conditions determine the extent of these outcomes.

Figure 1: Conceptual Framework



The discussion reveals that while the gig economy provides a pathway for financial inclusion, it does not automatically ensure equitable participation. The role of digital infrastructure, access to technology, and awareness about gig platforms significantly influences women's engagement. Thus, the gig economy reflects both inclusivity and exclusion, depending on the availability of enabling conditions. These findings align with the broader discourse that flexibility alone is insufficient without supportive ecosystems. Therefore, enhancing accessibility and awareness becomes crucial for expanding women's participation. The explanatory results demonstrate a positive relationship between skill acquisition particularly digital literacy, communication skills, and platform-specific competencies and improved employment outcomes such as higher income, better task allocation, and increased job satisfaction. Women with access to structured training programs and continuous upskilling opportunities are found to perform better and secure more stable gig assignments. However, the study also identifies a significant skill gap among a large segment of women, especially those from economically weaker and less-educated backgrounds. This gap restricts their entry into high-value gig roles and confines them to low-paying, repetitive tasks. The discussion further suggests that existing government and private training initiatives, although beneficial, are not adequately aligned with the dynamic requirements of gig platforms. Consequently, there is a need for targeted, market-driven skill development programs that address both technical and soft skill requirements. Strengthening this linkage between skills and gig opportunities is essential for improving women's economic outcomes.

Despite the opportunities presented by the gig economy, the study identifies several structural and institutional challenges that limit women's long-term growth and security. Issues such as income instability, absence of social security benefits, safety concerns, and lack of career progression pathways continue to affect women disproportionately. The informal nature of gig work exacerbates these challenges, as workers are often excluded from labour protections and welfare schemes. Additionally, socio-cultural factors such as gender norms and caregiving responsibilities further constrain women's ability to fully engage in gig work. The discussion reveals that without adequate policy interventions

and institutional support, the gig economy may reinforce existing inequalities rather than reduce them. Emerging trends suggest the need for gender-sensitive policies, including social protection measures, digital inclusion initiatives, and safe working environments. Moreover, collaboration between government, gig platforms, and training institutions is essential to create an enabling ecosystem for women workers. Overall, the discussion underscores that while the gig economy holds transformative potential, its benefits for women depend largely on effective skill development, supportive policies, and inclusive practices.

## **7. Findings of Study**

- The study finds that emerging trends such as platform-based work expansion, micro-credentialing, and the rise of social commerce have significantly lowered entry barriers for women, enabling greater participation in the gig economy.
- The study reveals that the gig economy has created a flexible and accessible employment platform for women, particularly in urban and semi-urban regions. Women are increasingly engaging in gig-based activities such as freelancing, online services, and platform-mediated work due to the convenience of flexible working hours and the ability to balance domestic responsibilities. However, the findings indicate that participation is not uniformly distributed, as women from higher educational and socio-economic backgrounds demonstrate greater involvement compared to those from marginalized sections.
- The limited digital access and awareness continue to restrict entry for many women, especially in rural areas. The study also finds that the gig economy offers an alternative pathway for income generation, but it does not fully replace the stability of traditional employment. Furthermore, women are more likely to be concentrated in low-skill and low-paying gig roles. This highlights the need for targeted interventions to ensure equitable participation.
- Another key finding of the study is the significant influence of skill development on women's employability and performance in the gig economy. Women possessing higher levels of digital literacy, communication skills, and technical competencies are found to have better access to diverse and higher-paying gig opportunities.
- The analysis demonstrates a positive relationship between skill acquisition and income levels, job satisfaction, and work efficiency. Conversely, a lack of relevant skills restricts women to repetitive and low-value tasks, limiting their earning potential and growth prospects. The study also finds that while various government and private training programs exist, their reach and effectiveness remain uneven.
- The study further identifies several challenges that hinder women's long-term sustainability in the gig economy. Income instability, lack of social security, and absence of formal employment benefits are major concerns reported by respondents. Safety issues, particularly for women engaged in location-based gig work, also emerged as a significant barrier. The findings highlight that socio-cultural factors such as family responsibilities and gender norms continue to influence women's work choices and availability. The findings suggest that a combination of skill development, policy support, and technological inclusion is necessary to enhance women's empowerment. Therefore, addressing these challenges is crucial for ensuring sustainable and inclusive growth in the gig economy.

## **8. Conclusion**

The study concludes that emerging trends such as micro-credentialing, hybrid digital skill integration, remote gig expansion, social commerce participation, and AI-enabled work systems are fundamentally transforming women's engagement in the gig economy. While these trends create flexible and accessible livelihood opportunities, they also demand continuous upskilling, digital adaptability, and entrepreneurial competence. Persistent challenges related to income

insecurity, limited social protection, and unequal access to advanced skills constrain long-term sustainability. Therefore, a coordinated approach involving policy support, platform accountability, and targeted skill development interventions is essential to enhance inclusive, equitable, and sustainable participation of women in the evolving gig economy landscape.

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