

Empowering Women Entrepreneurs in the Indian E-Commerce Sector: Strategies, Policy Support and Enabling Factors

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ABSTRACT

This study investigates the strategies, policy awareness, and enabling factors that drive the growth and success of women entrepreneurs in India's dynamic and rapidly expanding e-commerce sector. With increasing digital penetration and changing consumer behavior, women-led online businesses have gained momentum across urban and semi-urban areas. The research draws on primary data collected from women actively involved in e-commerce ventures to analyze key determinants of their entrepreneurial journeys. Findings indicate a strong reliance on digital marketing tools, particularly the strategic use of social media platforms such as Instagram, Facebook, and WhatsApp, which serve as primary channels for outreach, branding, and customer engagement. Networking and skill enhancement have emerged as essential tools in overcoming operational and market-related challenges. The study also reveals a moderate to high level of awareness among respondents regarding government initiatives that support women-led enterprises. Among these, the Pradhan Mantri Mudra Yojana (PMMY) and the Open Network for Digital Commerce (ONDC) are the most commonly known and accessed schemes. Additionally, the research underscores the significance of training programs, mentorship opportunities, and improved access to financial resources and technological infrastructure as crucial components of a supportive entrepreneurial ecosystem. These factors collectively enable women to overcome structural barriers and sustain their online business models. By combining strategic, institutional, and systemic viewpoints, this study offers a comprehensive insight into the evolving landscape of female entrepreneurship in Indian e-commerce. It also provides policy recommendations to further enhance women's participation and long-term success in the digital economy.

Index terms: Women Entrepreneurs, E-Commerce, Digital Marketing Strategies, Government Policy Awareness, Enabling Factors.

INTRODUCTION

Today, many female vendors use e-commerce platforms to sell their goods in a variety of industries, including fashion apparel, jewellery, handicrafts, health care, and home furnishings (Mahaboob Basha et al., 2013). The main factors contributing to the online marketplace's rise as a favourable venue for female entrepreneurs include low startup costs, the convenience of working from home, its worldwide reach, and the empowerment that comes with financial independence. In India, women in business are a relatively new phenomenon. Due to push and pull forces that support their desire for independence and self-sufficiency, women entrepreneurs are active in the business world (Sonia Justin Raj et al., 2018).

In India, e-commerce is expanding quickly, partly due to the country's rising adoption of social media and cutting-edge technologies. It has given Indian women entrepreneurs additional opportunities (Mehnaz Akhter, 2017). E-commerce is special because it allows a buyer and a seller to meet whenever and wherever they choose, without needing to get to know each other personally. This allows people to connect more easily and globally. Because of its flexibility and technological advancements, women entrepreneurs are able to operate their businesses exclusively online. It has helped women entrepreneurs expand tremendously by enabling them to penetrate foreign markets, opening up new avenues of opportunity for them. Women now feel much more financially independent and satisfied with their level of self-reliance thanks to the e-commerce boom. Flexibility, safety while working from home, and the ability to work in part during pregnancy are among the advantages of e-commerce for women. Due to the ongoing expansion of e-commerce worldwide, prominent female players have entered the Indian market in an effort to promote the growth and development of e-commerce platforms. The widespread use of social media and the internet have a significant impact on how their firm is run by lowering obstacles to cross-border collaboration and enabling schedule flexibility through the introduction of virtual workplaces and digital lifestyles. Thus, e-commerce is experiencing significant growth thanks to the culture of niche company.

Women-owned businesses are creating new opportunities to reduce unemployment and increase the GDP of our country. The e-commerce industry in India is empowering small manufacturers because many e-commerce enterprises employ talented artisans who, in many cases, were not previously officially employed but instead worked with their families on an informal basis (Bhatt, S. 2001). E-commerce has made it possible for businesses to function even in the absence of a warehouse or other storage facility, despite the complexity of warehouse administration. Orders are frequently placed directly with the wholesalers, and third-party logistics are then utilized to deliver the merchandise to the clients. This lowers expenses while also saving businesses a great deal of time and work when handling and transporting goods. Mass customization is one of e-commerce's additional advantages. Customization has proven to be a highly important and helpful factor for businesses. By doing this, companies provide their clients the chance to select and customize products based on their needs. E-commerce has fundamentally altered and revolutionized how customers purchase goods and services. (Schmitz, A. J, 2016).

Women now have the much-needed flexibility to work from home thanks to the advancements in information technology (IT) (Arun, S., & Arun, T. 2002). With telecommunication networks, e-commerce is spicing up the business scene across the nation. Through the use of technological gadgets, consumers, marketers, manufacturers, and intermediaries interact to meet their requirements without the need for direct personal enrichment (K. Pushpam et al., 2020).

LITERATURE REVIEW

Baral, R et. al. 2023

The objective of this study is to provide prospects for future research, emphasize the research topics that have not received enough attention, and organize the empirical research that has already been done on women entrepreneurs (WEs) in India. A comprehensive literature review (SLR) was conducted on seventy-four academic publications published between 1993 and 2020 that addressed women entrepreneurs in India. The 4W framework from earlier SLRs serves as the foundation for this review's structure. The following foci serve as the review's direction: What is known about Indian academic study on WEs?

How were these investigations carried out? In what location were these investigations carried out? Why should practitioners and academics take WE research into consideration? The four primary topics that the authors identified as underpinning the empirical research on WEs are: performance metrics for WEs, variables that attract and drive WEs, obstacles faced by WEs, and success factors for WEs. Scholars have focused on obstacles and success factors, but there is a glaring dearth of research on what drives or draws in WE and performance metrics. The primary deficiencies were the absence of a theoretical foundation in the studies, the reliance on methodology based on surveys and interviews, and the dearth of studies that were context-specific.

Maqbool et. al., 2023

This study aims to investigate the impact of the COVID-19 lockdown on small and medium-sized businesses as reported by female mortgagors of microfinance institutions and provides guidance on strategies to support female entrepreneurs. This study examines different approaches small business owners should use during financial crisis to minimize the impact on their employees and customers. The researcher will carry out a case study of entrepreneurs who use various strategies and methods to sustain their modest home-based firms using a qualitative research methodology. The researcher attempts to elucidate how entrepreneurs weather the pandemic using semi-structured interviews. Additionally, this report makes some recommendations for how small and medium-sized firms can survive. The results offer valuable insights into the impact of the COVID-19 pandemic on female entrepreneurs by considering factors such as family income, company transactions, lifestyle choices, and mental health.

Bhakuni et. al., 2023

By examining the opportunities and challenges faced by female entrepreneurs, this review research study seeks to provide a thorough analysis of the state of female entrepreneurship. It explores the profound effects of female entrepreneurship on international economies, highlighting the revolutionary potential of this phenomenon. The study's theoretical foundation is a multifaceted theoretical framework that blends ideas from economics, gender studies, and entrepreneurship.

The study examines how gender dynamics interact with entrepreneurial attempts, influencing the experiences and results of female entrepreneurs in a variety of contexts, by utilizing an intersectional approach. The report provides a detailed picture of the obstacles that female entrepreneurs face, which vary from cultural limitations to societal prejudices and a lack of financial resources. This research is unique because it takes a complete approach, integrating economics, gender studies, and entrepreneurship to provide a thorough knowledge of the effects of female

entrepreneurship. Through revealing the complex interactions among opportunities, impediments, and global economies, this research offers a distinctive viewpoint that advances both theory and practice.

Özdemir, Kadir & NACAR, Ramazan, 2022

Over the past ten years, there has been a rise in scholarly publications on e-commerce in tandem with the rising rates of e-commerce usage globally. In light of this, the study's analysis and discussion of the e-commerce publications indexed in the Web of Science (WOS) database between 2010 and 2020 takes into account the journals, publication years, nations, sample size, primary goals, theories, variables, and primary findings. As a result, 70 carefully chosen research publications were looked over. These articles must meet two requirements in order to be selected: they must be research articles that use e-commerce websites to gather customer data. As a result, the content analysis method was applied to study and assess 70 selected articles. A summary of a few publications is included in Appendix 1 as a consequence of the analysis. The chosen articles share a few common conclusions, including the following: consumers' perceived trust and intention to purchase are positively influenced by website reputation, size, familiarity, perceived ease of use, recommendations, design, convenience, perceived usefulness, system quality, service quality, and information quality in e-commerce. Additionally, customers' perceptions of trust have a beneficial impact on their buy and repurchase intentions. Aside from that, significant factors influencing consumers' propensity to buy and repurchase in e-commerce include perceived value, perceived usefulness, perceived ease of use, and perceived risk. Finally, customers' perceptions and intentions to purchase are adversely affected by perceived risk.

R. Shibana on 2021

The author's research led her to the conclusion that personal obstacles would limit the chances for female entrepreneurs to advance in the field of e-commerce development. Instead of being solely motivated by financial gain, the majority of women are self-motivated and drawn to entrepreneurship by a need for challenge and achievement. According to the survey, 56% of participants were very strong entrepreneurs. The results show that women possess a wealth of these attributes, which are necessary for starting their own businesses where they may successfully balance their personal and professional lives. The majority of respondents (53%) to the survey stated that juggling work and home obligations was not a significant obstacle for female e-commerce entrepreneurs.

Sabri et. al. 2021

The purpose of this article was to explore the opportunities and difficulties that women entrepreneurs are facing in the present digital transformation landscape. The current paper gave a synthesis of academic studies and discussed some significant discoveries based on the central issue. The analysis's main goal was to clarify the function of social media, the most significant digital business solution. The main obstacles to embracing digital alternatives were also covered, ranging from new digital pressures to gender issues that have long existed. The fundamental conditions for producing successful female entrepreneurs in the digital economy are explained in this study in a way that is pertinent to academia, and the dangers that are indicated can assist them in averting unintentional business failures.

RESEARCH METHODOLOGY

Research Design

Following an exploratory study and the formulation of clear objectives, a descriptive research design was selected for this study. The purpose of this design is to systematically describe the characteristics of the variables relevant to the research topic. While the research design provides the overall framework for the methodology, the research methodology itself outlines the detailed approach for data collection and subsequent analysis. This study utilizes both primary and secondary data. Primary data were gathered through a structured questionnaire administered to women entrepreneurs, while secondary data were sourced from books, journals, websites, and relevant articles related to e-commerce and women entrepreneurship. The sample comprised 200 women entrepreneurs from Maharashtra, specifically from Mumbai, Thane, and Nashik, actively engaged in the e-commerce sector. Data collection involved administering structured questionnaires and conducting interviews—both face-to-face and telephonic—to gain insights into the impact of e-commerce on women entrepreneurs, challenges they face, and factors that could encourage greater participation of women in this sector, ultimately benefiting the Indian economy.

Sample Design

The sample design for the study was developed considering the following key parameters:

- **Sample size**
- **Sample area**
- **Sampling technique**
- **Sampling instrument**
- **Sampling unit**

Sample Size

To determine an appropriate sample size, a statistical formula for descriptive research was used:

$$SS = \frac{Z^2 \times p \times (1-p)}{C^2 \times SS} = \frac{Z^2 \times p \times (1-p)}{C^2}$$

Where:

- **SS** = Sample size
- **Z** = Z-value (1.96 for 95% confidence level)
- **p** = Estimated proportion of the population choosing a specific response
- **C** = Confidence interval (margin of error), here set at 0.05 (5%)

The total rural population of women entrepreneurs engaged in e-commerce during the data collection period was 412. Using the above formula and an online sample size calculator (SurveyMonkey), with a 95% confidence level and a 5% margin of error, the sample size was calculated as **200 respondents**.



Figure 1- Image Showing Sample Size

Sample Area

The study focused on the Maharashtra region, encompassing the districts of Mumbai, Thane, and Nashik.

Sampling Technique

Due to the challenge of tracking women entrepreneurs operating in e-commerce, who often lack a fixed physical location, **convenience sampling** was employed. This approach facilitated the selection of respondents based on their availability and accessibility during the data collection phase.

Sampling Unit

The primary sampling units were women entrepreneurs actively engaged in e-commerce businesses across Mumbai, Thane, and Nashik.

Sampling Instrument

A structured questionnaire, designed as a schedule, was used to collect primary data from the selected respondents.

Data Collection and Analysis

Primary data were collected using personally administered structured questionnaires through schedule techniques. This method ensured that respondents clearly understood the questions, enabling accurate and relevant responses aligned with the study objectives. The researcher selected respondents based on convenience; however, deliberate efforts were made to ensure that the sample was as representative as possible of the broader population of women entrepreneurs in the e-commerce sector within the chosen geographic area.

Data analysis involved organizing and interpreting the collected responses to identify key patterns and insights related to the strategies adopted, awareness of government policies, and enabling factors influencing women entrepreneurs in e-commerce.

DATA ANALYSIS AND INTERPRETATION

Strategies, Government Policy Awareness, And Enabling Factors For Women Entrepreneurs In E-Commerce Business In India

Table 1: Integrated Overview of Strategies, Policy Awareness, and Enabling Factors Adopted by Women Entrepreneurs in the E-Commerce Sector

Category	Specific Strategy/Policy/Factor	Number of Women
Strategies Implemented	Building a strong online presence	46
	Continuous learning and skill development	45
	Leveraging social media for marketing	55
	Networking with other entrepreneurs	54
Government Policies Awareness	Women Entrepreneurship Platform (WEP)	20
	Draft National E-Commerce Policy	28
	Pradhan Mantri Mudra Yojana (PMMY)	55
	Open Network for Digital Commerce (ONDC)	48
	Stand Up India	39
Enabling Factors	Investment	40
	Training	65
	Resources	45
	Mentorship	50

Table 1 encapsulates a comprehensive synthesis of the strategic initiatives, policy cognizance, and enabling determinants that collectively facilitate the advancement of women entrepreneurs within India's burgeoning e-commerce landscape. The strategic dimension reveals a pronounced emphasis on digital engagement, wherein leveraging social media platforms for marketing purposes (55 respondents) and cultivating entrepreneurial networks (54 respondents) emerge as the most prevalently adopted practices. These are closely followed by efforts to establish a robust online presence (46) and a commitment to continuous learning and skill enhancement (45), underscoring the adaptive and proactive orientation of women-led ventures.

In the realm of policy awareness, the Pradhan Mantri Mudra Yojana (PMMY) registers the highest recognition among participants (55), indicating its critical role in fostering financial inclusion and entrepreneurial empowerment. This is complemented by notable awareness of the Open Network for Digital Commerce (ONDC) (48), Stand Up India (39), and the Draft National E-Commerce Policy (28), while the Women Entrepreneurship Platform (WEP), though impactful, reflects comparatively limited awareness (20), suggesting potential for broader outreach and dissemination.

Furthermore, the analysis of enabling factors delineates training as the most pivotal facilitator (65 respondents), reflecting the indispensable value of capacity-building initiatives. Mentorship (50), resources (45), and investment access (40) also surface as critical enablers, collectively highlighting the multifactorial ecosystem required to bolster women's participation and sustained success in digital commerce.

The table thus provides a nuanced portrayal of the interplay between personal initiative, institutional support, and systemic enablers in shaping the trajectory of women entrepreneurs in India's e-commerce domain.

FINDINGS

Strategic Approaches to Success

Women entrepreneurs in the e-commerce sector predominantly employ a range of strategic practices to ensure business growth and sustainability. The most frequently adopted strategies include leveraging social media platforms for marketing and customer engagement (28%), fostering professional networks for support and collaboration (27%), establishing a robust online presence to enhance visibility and credibility (23%), and engaging in continuous learning to stay abreast of industry trends and digital tools (22%). These approaches collectively reflect a proactive and dynamic mindset essential for success in the digital marketplace.

Awareness of Government Policies

The study reveals a high level of awareness among participants (95%) regarding government initiatives designed to support women entrepreneurs in the e-commerce domain. Among these, the Pradhan Mantri Mudra Yojana (PMMY) is the most widely recognized (55 respondents), followed closely by the Open Network for Digital Commerce (ONDC) (48 respondents). This awareness signifies an encouraging level of engagement with institutional support mechanisms aimed at promoting women's economic empowerment.

Critical Enabling Factors

Several enabling factors have been identified as pivotal in facilitating women's participation and success in e-commerce. Education (33%) and professional training (32.5%) emerge as key drivers, equipping women with essential knowledge and skills. Supportive networks (28%) and mentorship opportunities (25%) are also seen as vital for confidence-building and strategic guidance. Additionally, access to funding (19.5%) is recognized as a foundational element in overcoming financial barriers and scaling business operations. Together, these factors create a conducive ecosystem that fosters inclusive growth and entrepreneurial resilience among women in the digital economy.

CONCLUSION

The data analysis clearly underscores the multifaceted ecosystem that supports the rise of women entrepreneurs in India's e-commerce sector. The strategic behaviors adopted by these entrepreneurs—particularly leveraging social media, building entrepreneurial networks, and committing to continuous skill development—demonstrate a forward-looking and adaptive approach that is essential for thriving in a competitive digital economy. These strategies not only reflect individual initiative but also a broader cultural shift toward digital entrepreneurship among women.

Equally significant is the level of awareness and engagement with government policies. The widespread recognition of the Pradhan Mantri Mudra Yojana (PMMY) and the Open Network for Digital Commerce (ONDC) indicates that well-publicized and accessible schemes can have a meaningful impact on women's entrepreneurial journeys. However, the relatively limited awareness of initiatives like the Women Entrepreneurship Platform (WEP) highlights the need for more inclusive outreach and targeted communication strategies to ensure that valuable resources reach a wider demographic of aspiring entrepreneurs.

Enabling factors such as training, mentorship, access to resources, and investment opportunities are revealed as critical pillars in fostering successful women-led e-commerce enterprises. Among these, training stands out as the most influential, emphasizing the necessity of ongoing capacity building and skill enhancement to navigate the evolving digital marketplace.

In conclusion, the success of women entrepreneurs in e-commerce is shaped by the synergy between personal drive, institutional support, and systemic enablers. Strengthening this ecosystem through targeted policy implementation, increased awareness campaigns, and investment in training and mentorship programs will be key to unlocking the full potential of women-led digital enterprises in India.

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