

Enhancing Women Entrepreneurship through Sustainable Supply Chains in Rural Karnataka – A Study of the Malnad Region

Srilalitha M.K.

Ph.D. Research Scholar, Department of Commerce, Srinivas University, Mangalore, Karnataka, India

Abstract

Women entrepreneurship is a vital catalyst for inclusive and sustainable rural development. However, in regions like Malnad in Karnataka, despite the abundance of natural resources and local talent, women entrepreneurs face multiple challenges—especially in accessing and managing efficient supply chains. This conceptual study aims to explore how sustainable supply chain models can help bridge critical gaps that hinder women's participation and success in entrepreneurship. Drawing from secondary sources and national-level data, the paper emphasizes the intersection of gender, supply chain dynamics, and rural enterprise development. The study advocates for integrated approaches, policy reforms, and digital empowerment strategies to uplift women entrepreneurs in the Malnad region.

Keywords: *Women Entrepreneurship, Supply Chain Management, Rural Karnataka, Malnad Region, Sustainable Development, Empowerment, Digital Inclusion, SHG, MSME.*

Introduction

India's growth narrative has increasingly recognized the role of women entrepreneurs in socio-economic development. In rural regions like Karnataka's Malnad belt, which includes districts like Shivamogga, Chikkamagaluru, and parts of Uttara Kannada, women often manage micro-enterprises in agriculture, food processing, and handicrafts. Yet, their ventures rarely scale or sustain due to inadequate supply chain infrastructure, market access issues, and social limitations.

A **sustainable supply chain** is not just environmentally sound but also inclusive, participative, and supportive of marginalized groups like rural women. By integrating local resources, digital tools, and cooperative models, the supply chain can become a powerful enabler for women-led businesses.

Statement of the Problem

Despite targeted government schemes (like PMEGP, MUDRA, and Startup India), **women entrepreneurship in the Malnad region remains underdeveloped**. The lack of access to reliable markets, inefficient logistics, limited knowledge of packaging and branding, and gender-based barriers continue to stifle entrepreneurial initiatives.

Moreover, rural women are **underrepresented in formal supply chain networks**, which further restricts their ability to scale, compete, and sustain enterprises. There exists a pressing need to explore how these **supply chain gaps can be bridged** to foster sustainable women-led development in Malnad.

Objectives of the Study

1. To understand the current status of women entrepreneurship in the Malnad region.
2. To analyse the gaps in supply chain participation among rural women entrepreneurs.
3. To explore sustainable supply chain models applicable to rural enterprises.
4. To suggest strategic interventions for integrating women entrepreneurs into efficient and inclusive supply chains.

Women Entrepreneurship and Supply Chain Development: A Contextual Exploration in India and Malnad Region of Karnataka

Women Entrepreneurship in India:

Women entrepreneurship in India has gradually evolved over the years, with increasing recognition of its role in national economic development. However, the overall representation of women in the entrepreneurial ecosystem remains significantly low. According to the 6th Economic Census, only around 14% of Indian businesses are owned or operated by women. These enterprises are predominantly micro or small-scale in nature and often lack formal registration. Most women entrepreneurs in the country engage in sectors such as food processing, tailoring, retail trade, and home-based manufacturing. Despite government schemes like MUDRA Yojana, Stand-Up India, and the Women Entrepreneurship Platform, structural issues such as gender discrimination, financial illiteracy, poor access to technology, and limited market exposure continue to hinder the growth of women-led businesses. The potential of women as contributors to the national economy remains underutilized unless these systemic challenges are addressed through integrated policy and ecosystem support.

Women Entrepreneurship in Karnataka

Karnataka stands out as one of the leading states in promoting entrepreneurship, with a relatively better ecosystem for women entrepreneurs compared to many other states. As per data from the Ministry of MSME, Karnataka hosts over 1.6 lakh women-owned enterprises. Cities like Bengaluru, Mysuru, and Hubballi-Dharwad have emerged as supportive hubs for women-led businesses, primarily due to access to resources, education, and institutional networks. Several initiatives at the state level, including those by the Karnataka State Women Development Corporation (KSWDC), Elevate Women Entrepreneurship Scheme, and NGO-led capacity-building programs, have contributed to enhancing women's participation in economic activities. However, the urban-rural divide remains wide, with limited support mechanisms and outreach in interior and hilly regions like Malnad. There is a pressing need to decentralize support infrastructure and create location-specific policies that empower women entrepreneurs in the less developed areas of the state.

Women Entrepreneurship in Rural Karnataka

Rural Karnataka, characterized by a diverse cultural and agro-climatic profile, presents both opportunities and constraints for women entrepreneurs. Many rural women are engaged in small-scale ventures such as dairy farming, food processing, areca nut trading, tailoring, and handicrafts. These businesses are generally informal, and most women rely on self-help groups (SHGs) or community cooperatives for financial and operational support. While such arrangements offer a basic entry point into entrepreneurship, the absence of structured training, mentorship, and market linkages severely limits growth potential. Infrastructure bottlenecks such as lack of roads, internet access, and transport facilities further restrict rural women's ability to expand their businesses. Additionally, socio-cultural factors such as traditional gender roles, early marriage, and household responsibilities continue to deter many women from actively pursuing entrepreneurial careers. Addressing these challenges requires a multifaceted approach involving government, civil society, and the private sector.

Women Entrepreneurship in the Malnad Region

The Malnad region, covering districts like Shivamogga, Chikkamagaluru, and parts of Uttara Kannada and Hassan, holds significant potential for women entrepreneurship due to its rich biodiversity and agro-based economy. Women in this region are actively engaged in producing goods such as areca plates, jackfruit products, herbal items, honey, spices, and home-cooked foods. However, the terrain of the region, marked by dense forests and hilly landscapes, poses serious logistical and connectivity challenges. Most women operate at the grassroots level through SHGs or informal networks, which lack access to formal finance, proper packaging methods, and market intelligence. Despite high involvement in value-added agricultural and forest-based products, women entrepreneurs in Malnad are often

excluded from mainstream trade due to weak integration with supply chains. The potential for organic, eco-friendly, and niche market products remains untapped due to a lack of structured support in branding, certification, and marketing.

Supply Chain and Women Entrepreneurship

Supply chain management is a crucial element in the success of any entrepreneurial venture, particularly for those engaged in production-based and agro-processing activities. For women entrepreneurs, especially in rural and hilly regions, supply chain integration can be transformative. It enables them to procure quality inputs, adopt efficient production methods, ensure timely delivery, and access wider markets. However, women face multiple barriers in participating fully in supply chains. These include mobility restrictions, low technological awareness, absence of storage and logistics facilities, and exclusion from market networks. The lack of digital literacy and absence of e-commerce training further alienate rural women from mainstream business platforms. Bridging these gaps requires the development of inclusive and decentralized supply chains that are tailored to the specific needs of rural women. SHG-driven procurement centers, mobile logistics units, women-run collection hubs, and partnerships with digital marketplaces can significantly enhance women's participation in supply chains.

Importance of Supply Chain Integration for Women Entrepreneur

Supply chain integration is not only a business enabler but also a tool for social empowerment when applied in the context of women entrepreneurship. By connecting women entrepreneurs to the supply chain, we enhance their capacity to scale operations, negotiate better prices, and reach distant markets without depending solely on intermediaries. A well-integrated supply chain system improves access to credit, reduces wastage, enhances quality control, and facilitates timely delivery. Most importantly, it boosts the confidence and decision-making power of women by enabling them to participate in end-to-end business processes. In the context of regions like Malnad, supply chain integration can also lead to the formalization of many unorganized women-led enterprises and allow their unique local products to gain visibility in national and international markets. Therefore, bridging the supply chain gap is not merely a commercial intervention—it is a step towards gender equity, inclusive rural development, and sustainable livelihood creation.

Challenges of Integrating Supply Chain and Women Entrepreneurship

Integrating women entrepreneurs into mainstream supply chains in rural regions such as Malnad presents a complex set of challenges. One of the most significant barriers is the lack of access to infrastructure—including transportation, storage, packaging facilities, and cold chains—which are critical components of an efficient supply chain. Most women-run enterprises in rural Karnataka operate at a micro or informal scale, without the technical know-how or financial resources to invest in such infrastructure. As a result, their products often suffer from low shelf life, poor packaging, and irregular distribution, which hampers their marketability.

Another major challenge is limited digital and financial literacy, which restricts women entrepreneurs from using digital platforms for procurement, inventory management, and online sales. In the age of digital commerce and supply chain automation, this digital divide excludes many rural women from accessing wider markets or leveraging tools that could streamline their operations. Additionally, women often lack exposure to branding, quality standards, certifications, and pricing strategies, which are essential for successful integration into organized supply networks.

Social and cultural norms also act as invisible barriers. In many rural settings, women face mobility restrictions and are expected to prioritize household responsibilities over business activities. These gendered expectations limit their ability to travel for business purposes, attend supply chain training programs, or engage with logistics providers. Moreover, male-dominated procurement and distribution

networks often overlook or undervalue women entrepreneurs, further marginalizing them in business ecosystems.

Access to credit and working capital poses another significant challenge. Even when supply chain opportunities exist, women entrepreneurs may struggle to scale production or fulfill bulk orders due to lack of funds. Many financial institutions perceive women-led rural businesses as high-risk, especially when collateral is not available. This lack of financial inclusion hinders their ability to participate in supply chains that require consistency, timely delivery, and quality assurance.

Lastly, there is often a disconnect between policy frameworks and grassroots implementation. While numerous schemes and training programs exist on paper to support women entrepreneurship and supply chain development, they are rarely tailored to local needs or translated into actionable outcomes at the village or taluk level. The absence of localized support mechanisms, including field-level facilitators or supply chain mentors, means that many women are unaware of these opportunities or unable to access them effectively.

In summary, integrating women entrepreneurs into supply chains is not simply a logistical or financial issue—it is a multifaceted challenge that requires addressing infrastructural gaps, digital inequity, social norms, institutional biases, and policy-practice mismatches. A holistic and gender-sensitive approach is essential to overcome these barriers and create a truly inclusive entrepreneurial ecosystem.

Policies Promoting Supply Chain and Women Entrepreneurship in India

The Government of India has recognized the strategic importance of women entrepreneurship in fostering inclusive economic growth, especially in rural and semi-urban areas. To promote women's participation in business and ensure their integration into value chains, several national-level policies and schemes have been launched over the past two decades. One of the flagship initiatives is the **Stand-Up India Scheme**, which facilitates bank loans ranging from ₹10 lakh to ₹1 crore to women and SC/ST entrepreneurs for setting up new enterprises. This policy is particularly helpful for women looking to start production or service-based ventures that can later be linked to local and regional supply chains.

Similarly, the **Pradhan Mantri MUDRA Yojana (PMMY)** offers micro-financing solutions through MUDRA (Micro Units Development and Refinance Agency) banks to small women entrepreneurs, particularly those associated with informal enterprises like tailoring, food processing, and home-based businesses. Under this scheme, many women entrepreneurs have received loans under Shishu, Kishore, and Tarun categories based on their stage of business development. Access to finance directly impacts the ability of women to participate in and contribute to supply chains, particularly in procurement and distribution segments.

Another important initiative is **Mahila e-Haat**, launched by the Ministry of Women and Child Development. This is an online marketing platform designed to support women entrepreneurs, SHGs, and NGOs to showcase their products and services. By providing a virtual marketplace, it creates direct market linkages, thereby integrating women more effectively into supply chains without the need for intermediaries. Complementing this is **Amazon Saheli** and **Flipkart Samarth**, private sector-led digital platforms that onboard rural women producers, providing them training, cataloguing support, and access to national-level markets.

To encourage participation of rural women in the agricultural supply chain, the **National Rural Livelihood Mission (NRLM)** has played a pivotal role. Through its SHG-based model, NRLM facilitates capacity building, financial inclusion, and value chain development for women-led micro-enterprises. Various state-level programs under NRLM, such as **Kudumbashree in Kerala**, have shown the power of

collective women-led enterprise in building resilient and localized supply chains. In Karnataka, NRLM has helped build and finance women-led producer groups and federations in agriculture and non-farm sectors, fostering backward and forward linkages.

Furthermore, the **Startup India and Atal Innovation Mission (AIM)** encourage women-led startups through incubation, mentoring, and funding support. These initiatives promote innovative women entrepreneurs working in logistics, agritech, packaging, and digital platforms—all vital components of the modern supply chain. Also, the **Public Procurement Policy for MSEs (2012)** mandates that 3% of all government procurement should be sourced from women-owned micro and small enterprises. This policy offers a substantial opportunity for women entrepreneurs to supply goods and services to government departments, encouraging them to professionalize and scale their supply chain operations.

In the agricultural sector, the **Formation and Promotion of 10,000 Farmer Producer Organizations (FPOs)** scheme under the Ministry of Agriculture encourages the creation of women-led FPOs. These FPOs are designed to strengthen production, aggregation, processing, and marketing capacities of women farmers and agri-entrepreneurs, thus integrating them into structured and sustainable agri-value chains.

In summary, India has developed a multi-pronged policy ecosystem to promote women entrepreneurship and supply chain development. However, the real challenge lies in the **implementation, localization, and awareness creation** of these schemes in remote regions like Malnad. For these policies to make a significant impact, there must be concerted efforts to reach women entrepreneurs through grassroots institutions, digital inclusion strategies, and localized capacity-building programs.

Benefits of Integrating Supply Chain and Women Entrepreneurship

Integrating women entrepreneurs into structured and sustainable supply chains brings far-reaching benefits, not just for the individual women involved, but also for the economy and society at large. One of the most immediate advantages is **enhanced market access**. When women-led enterprises are linked to reliable supply chains—whether through cooperatives, digital platforms, or public procurement—they are able to reach larger, more diverse customer bases beyond their local communities. This enables them to move from subsistence-level production to more commercially viable operations.

A second key benefit is **improvement in product quality and consistency**. Supply chain integration often involves access to better raw materials, standardized production techniques, and packaging facilities. This allows women entrepreneurs to produce goods that meet quality standards demanded by modern markets, thereby enhancing customer trust and repeat business. Moreover, participation in structured supply chains usually involves exposure to **training, certification processes, and compliance norms**, all of which elevate the professionalism and sustainability of women-led businesses. Another significant benefit is **cost efficiency and profitability**. With streamlined logistics, collective procurement, and organized distribution, women can reduce production costs, eliminate middlemen, and benefit from economies of scale. This often leads to increased profit margins and a more stable income, especially important in rural regions where economic opportunities are limited. Additionally, access to formalized supply chains makes women entrepreneurs more eligible for **credit, government support, and subsidies**, further strengthening their financial stability.

Beyond the economic sphere, supply chain participation also plays a vital role in **empowering women socially and personally**. As women gain greater control over production, sales, and revenue generation, their confidence and decision-making abilities grow. This often translates into increased participation in community affairs, improved negotiation power within households, and greater investments in the health

and education of their children. It also helps challenge traditional gender roles and stereotypes, gradually shifting societal norms in favor of gender equality.

From a broader development perspective, integrating women into supply chains contributes to **inclusive and sustainable economic growth**. Women entrepreneurs are more likely to reinvest their earnings in local economies, hire other women, and adopt environmentally friendly practices—particularly in sectors like agriculture, food processing, and crafts. Their involvement strengthens the resilience of rural supply chains by diversifying sources of production and introducing localized, culturally rooted business models. In conclusion, the integration of women entrepreneurship and supply chain systems is a transformative approach that yields multiple benefits—economic, social, and developmental. It not only uplifts women as individuals but also builds stronger, more equitable communities and supply networks. In regions like Malnad, where natural resources and traditional skills are abundant, creating inclusive supply chains centered around women entrepreneurs can serve as a powerful model for rural development.

Findings

The study reveals that while rural women in the Malnad region of Karnataka show strong potential for entrepreneurship—especially in agri-based and cottage industries—they face multiple structural and socio-economic barriers to integrating into formal supply chains. Women-led businesses are predominantly informal and lack access to technology, financial services, and scalable markets. The terrain of the Malnad region, combined with weak logistics and limited digital infrastructure, further isolates these entrepreneurs from mainstream trade networks. Existing government policies and self-help group models offer initial support, but most women entrepreneurs are unable to move beyond local sales due to lack of supply chain connectivity. Successful national and regional case studies suggest that when women are integrated into structured supply chains, they gain improved market access, product quality, profitability, and decision-making capacity.

Suggestions

To enable meaningful integration of women entrepreneurs into supply chains, the following strategies are recommended:

1. **Decentralized Supply Chain Hubs:** Establish local procurement, storage, and distribution centers managed by women collectives or SHGs at the Taluk level.
2. **Skill and Digital Literacy Training:** Offer training on inventory management, packaging, digital marketing, and use of logistics platforms.
3. **Cluster Development:** Promote product-based clusters in jackfruit, areca nut, honey, and bamboo crafts to encourage specialization and collective scaling.
4. **E-commerce and Private Partnerships:** Facilitate partnerships with Amazon Saheli, Flipkart Samarth, and other platforms to sell rural products online.
5. **Women-Specific Credit Facilities:** Simplify loan processes under MUDRA and Stand-Up India for rural women and link them with digital payments.
6. **Monitoring and Mentorship:** Deploy supply chain mentors at Panchayat or Taluk levels to guide women entrepreneurs through their value chain journey.

Scope for Future Research

- Conducting primary surveys among women entrepreneurs in different districts of Malnad (e.g., Shivamogga, Chikkamagaluru, and Hassan).
- Measuring the impact of supply chain participation on income, self-efficacy, and business growth.
- Comparative analysis of women entrepreneurs integrated into digital supply chains versus those operating independently.
- Exploring the role of mobile apps, AI-based logistics, and rural fintech solutions in building inclusive supply chain ecosystems.

- Policy impact assessment studies on schemes like PMEGP, NRLM, and e-Haat in facilitating supply chain development for rural women.

Conclusion

The integration of women entrepreneurs into sustainable supply chains is both a developmental imperative and a socio-economic opportunity. In a resource-rich region like Malnad, the potential for women-led business growth is substantial—but remains underleveraged due to structural gaps in logistics, infrastructure, policy reach, and social mobility. A multi-stakeholder approach that combines grassroots empowerment with technological integration can effectively bridge these gaps. Policies must go beyond financial assistance to focus on supply chain literacy, digital inclusion, and institutional mentorship. When empowered through robust supply chains, women not only elevate their families economically but also play a vital role in transforming rural economies into resilient and inclusive growth centers.

References

- Bansal, S. (2017). *Perspectives on Women Entrepreneurship in India*. International Journal of Research in Management and Business Studies, 4(1), 18–23.
- Chopra, S., & Meindl, P. (2020). *Supply Chain Management: Strategy, Planning, and Operation* (7th ed.). Pearson.
- Elkington, J. (1994). *Towards the sustainable corporation: Win-win-win business strategies for sustainable development*. California Management Review, 36(2), 90–100.
- Government of India. (2023). *Annual Report 2022-23*. Ministry of Women and Child Development. <https://wcd.nic.in>
- Ministry of MSME. (2021). *Udyam Registration Portal Report*. Government of India. <https://udyamregistration.gov.in>
- NABARD. (2021). *Status of Self Help Group-Bank Linkage Programme in India 2020-21*. National Bank for Agriculture and Rural Development.
- NITI Aayog. (2022). *Women Entrepreneurship Platform (WEP)*. <https://wep.gov.in>
- Reserve Bank of India. (2022). *Financial Inclusion in India: Insights from the SHG Movement*. RBI Publications.
- World Bank. (2020). *Enhancing Women's Participation in Value Chains*. World Bank Group.