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Role of Startups and MSMEs in Promoting Sustainable Development A Study with Reference to SDGs

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ABSTRACT

Startups and Micro, Small, and Medium Enterprises (MSMEs) have emerged as important contributors to sustainable development through innovation, employment generation, technological advancement, and socially responsible business practices. The present study examines the role of startups and MSMEs in promoting sustainable development with specific reference to the Sustainable Development Goals (SDGs). The research is based on a qualitative and descriptive methodology using secondary data collected from scholarly journals, policy reports, government publications, and sustainability studies published between 2015 and 2024. The findings indicate that startups and MSMEs significantly contribute to economic growth, financial inclusion, digital transformation, renewable energy adoption, and inclusive employment opportunities. The study also reveals that sustainability-oriented enterprises support environmental protection through green technologies, circular economy practices, and resource-efficient production systems. However, challenges such as financial constraints, infrastructural limitations, technological barriers, and limited awareness regarding SDGs continue to affect their sustainability potential. The study concludes that startups and MSMEs are essential drivers of sustainable and inclusive development and require stronger policy support, innovation ecosystems, and institutional assistance to enhance their contribution towards achieving SDGs.

Keywords: Startups, MSMEs, Sustainable Development, Sustainable Development Goals, Entrepreneurship, Green Innovation, Inclusive Growth, Sustainable Entrepreneurship

INTRODUCTION

Sustainable development has emerged as one of the most significant global priorities in the twenty-first century due to increasing concerns regarding environmental degradation, economic inequality, social exclusion, and climate change. The adoption of the Sustainable Development Goals (SDGs) by the United Nations in 2015 established a comprehensive global framework aimed at achieving balanced economic growth, social welfare, and environmental sustainability by 2030. The seventeen SDGs address critical issues such as poverty eradication, quality education, decent work, innovation, responsible production, climate action, and sustainable industrialisation. In this context, startups and Micro, Small, and Medium Enterprises (MSMEs) have gained considerable attention as dynamic economic actors capable of contributing significantly to sustainable development through innovation, employment generation, resource efficiency, and inclusive growth (Acs et al., 2018).

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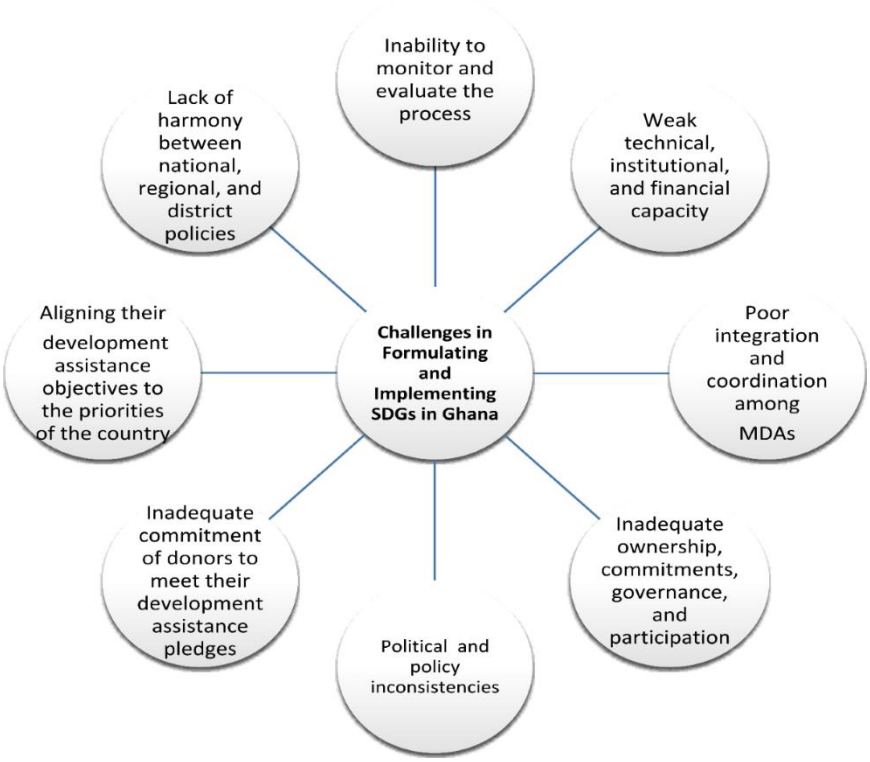

Startups and MSMEs constitute the backbone of many national economies, particularly in developing countries such as India, where they contribute substantially to industrial output, exports, gross domestic product, and employment creation. MSMEs account for a major share of economic activities in sectors including manufacturing, services, retail, agriculture, and technology. Similarly, startups have emerged as drivers of innovation and technological transformation by developing solutions to complex economic, social, and environmental challenges. Their flexibility, adaptability, and entrepreneurial orientation enable them to respond quickly to changing market conditions and sustainability demands. Consequently, these enterprises are increasingly recognised as important contributors to the achievement of SDGs related to economic growth, innovation, sustainable cities, clean energy, and responsible consumption (Kuckertz & Wagner, 2019).

The relationship between entrepreneurship and sustainable development has evolved significantly over recent decades. Traditional business models primarily focused on profit maximisation and market expansion, often neglecting social and environmental consequences. However, contemporary enterprises increasingly adopt sustainability-oriented practices that integrate economic performance with environmental stewardship and social responsibility. Startups and MSMEs play a particularly important role in this transition because they frequently operate with innovative business models, local community engagement, and resource-efficient technologies. Sustainable entrepreneurship has therefore emerged as a critical concept linking enterprise development with long-term societal and ecological well-being (Shepherd & Patzelt, 2017).

In India, the importance of startups and MSMEs has expanded considerably due to policy initiatives such as Startup India, Make in India, Digital India, and Atmanirbhar Bharat. These initiatives seek to promote innovation, industrial competitiveness, self-reliance, and

employment opportunities across urban and rural regions. The MSME sector contributes nearly one-third of India's Gross Domestic Product and provides employment to millions of individuals, including women, youth, and economically disadvantaged groups. Startups have also become instrumental in advancing digital transformation, financial inclusion, renewable energy solutions, sustainable agriculture, healthcare innovation, and waste management systems. Such contributions directly support several SDGs, including SDG 1 (No Poverty), SDG 8 (Decent Work and Economic Growth), SDG 9 (Industry, Innovation and Infrastructure), and SDG 12 (Responsible Consumption and Production) (Baporikar, 2020).

The increasing focus on sustainable development has encouraged enterprises to adopt environmentally conscious production processes, circular economy practices, renewable energy utilisation, and socially inclusive business strategies. Startups engaged in green technology, clean energy, electric mobility, organic farming, and sustainable packaging have demonstrated the potential of entrepreneurship in addressing environmental challenges. MSMEs, despite facing financial and technological constraints, also contribute to sustainability through local resource utilisation, employment generation, and community-based economic activities. Their role becomes particularly important in rural development and regional economic balance because these enterprises often operate in areas with limited industrial infrastructure and formal employment opportunities (Dhahri & Omri, 2018).

Despite their growing significance, startups and MSMEs encounter numerous challenges in promoting sustainable development. Limited access to finance, inadequate technological capabilities, regulatory complexities, infrastructural deficiencies, and market uncertainties often restrict their ability to adopt sustainable business practices. Many enterprises also face difficulties in balancing profitability with environmental and social responsibilities. Furthermore, awareness regarding SDGs and sustainability frameworks remains uneven among smaller enterprises, particularly in developing economies. These challenges highlight the need for supportive policy frameworks, institutional assistance, technological integration, and capacity-building initiatives that can strengthen the sustainability orientation of startups and MSMEs (Civelek et al., 2021).

The role of innovation in sustainable development is another important aspect associated with startups and MSMEs. Innovation enables enterprises to improve productivity, reduce waste, optimise resource utilisation, and create socially beneficial products and services. Startups, in particular, often function as innovation-driven enterprises capable of introducing disruptive technologies and digital solutions that address sustainability challenges. The emergence of fintech, agritech, edtech, healthtech, and cleantech startups demonstrates how entrepreneurial ecosystems can support sustainable economic transformation. MSMEs also contribute to innovation by adapting local knowledge, traditional skills, and community-oriented business models to changing economic and environmental conditions (Hall et al., 2016).

Another critical dimension of startups and MSMEs in sustainable development relates to social inclusion and equitable growth. These enterprises generate employment opportunities for marginalised populations, women entrepreneurs, rural communities, and youth. Women-led startups and small enterprises have particularly contributed to financial independence, skill development, and social empowerment in many developing regions. MSMEs also facilitate regional industrialisation and decentralised economic growth, reducing migration

pressures and supporting local economies. Their contribution to inclusive development aligns closely with SDGs related to gender equality, reduced inequalities, and sustainable communities (George et al., 2021).

The COVID-19 pandemic further highlighted the resilience and adaptability of startups and MSMEs in addressing socio-economic disruptions. Many startups developed digital healthcare solutions, remote learning platforms, supply chain technologies, and financial support systems during the crisis. MSMEs also played a crucial role in maintaining local production, employment continuity, and essential service delivery despite operational difficulties. At the same time, the pandemic exposed structural vulnerabilities within the MSME sector, particularly concerning financial sustainability and digital readiness. These developments reinforced the importance of building sustainable and resilient entrepreneurial ecosystems capable of responding effectively to future global challenges (Brammer et al., 2020).

The study of startups and MSMEs in relation to sustainable development and SDGs therefore becomes highly significant in understanding how entrepreneurial activities can contribute to long-term economic, environmental, and social progress. The analysis of their role provides insights into the ways enterprises can support sustainable industrialisation, technological innovation, employment generation, and responsible business practices. By examining the contributions, opportunities, and challenges associated with startups and MSMEs, the study contributes to the broader discourse on sustainable entrepreneurship and inclusive economic development in the context of global sustainability goals.

NEED OF THE STUDY

The study of the role of startups and MSMEs in promoting sustainable development has become increasingly important due to the growing emphasis on achieving the Sustainable Development Goals (SDGs) by 2030. Startups and MSMEs contribute significantly to economic growth, employment generation, innovation, industrial development, and social inclusion, particularly in developing economies such as India. Their expanding role in sectors such as renewable energy, digital technology, sustainable agriculture, healthcare, and waste management demonstrates their potential to support sustainable economic transformation. As sustainability challenges including climate change, unemployment, poverty, and resource depletion continue to intensify, it becomes necessary to understand how entrepreneurial enterprises can contribute to balanced and inclusive development (Apostolopoulos et al., 2018).

The increasing focus on sustainable entrepreneurship and responsible business practices has further highlighted the importance of startups and MSMEs in achieving environmental and social objectives alongside economic performance. Many emerging enterprises are adopting innovative and resource-efficient business models that support green production, circular economy practices, and socially responsible operations. However, despite their potential contributions, startups and MSMEs continue to face challenges related to finance, technological access, infrastructure, policy implementation, and sustainability awareness. These limitations often affect their ability to align business operations with SDG frameworks and long-term sustainability objectives (OECD, 2019).

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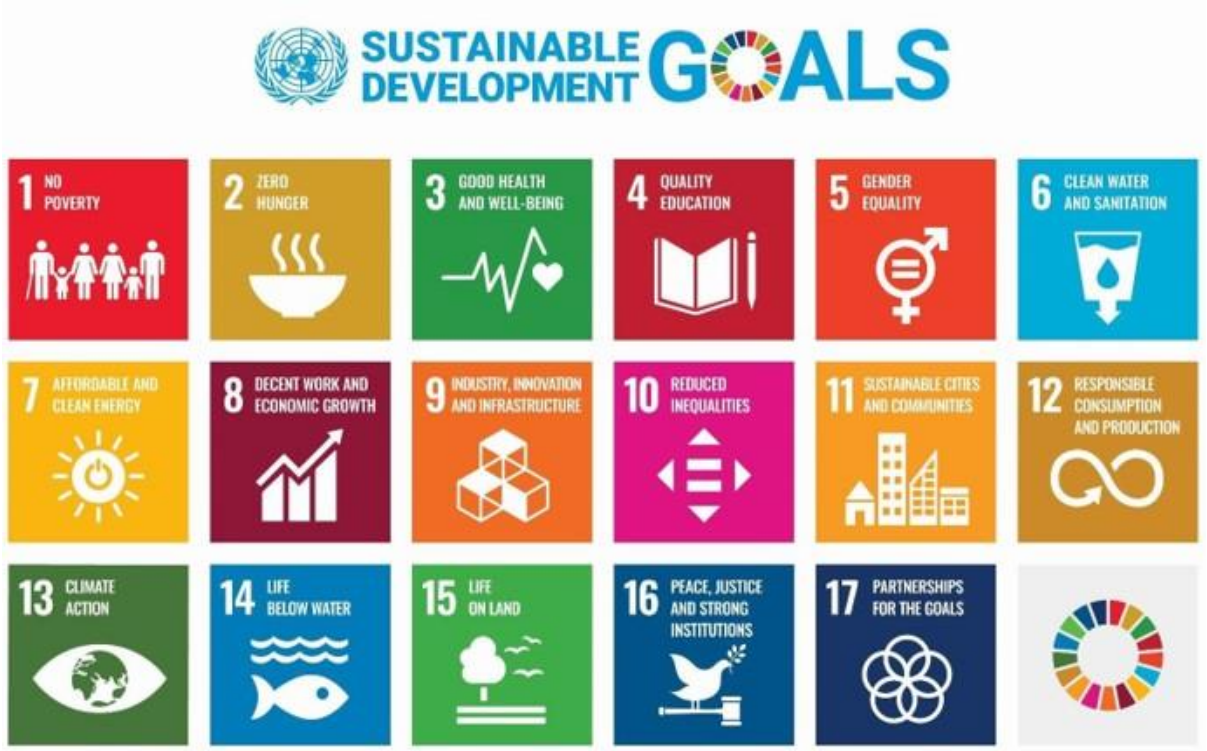

The study is therefore necessary to examine the relationship between startups, MSMEs, and sustainable development within the context of SDGs. It seeks to provide insights into the ways entrepreneurial ecosystems can support inclusive growth, innovation, environmental sustainability, and socio-economic resilience. The research also becomes relevant in the context of government initiatives such as Startup India, Digital India, and Make in India, which aim to strengthen entrepreneurship and industrial development in India. Understanding the role of startups and MSMEs in promoting sustainable development can assist policymakers, researchers, and business leaders in developing strategies that encourage sustainable enterprise growth and effective SDG implementation (Malerba & McKelvey, 2020).

SCOPE OF THE RESEARCH

The present research focuses on examining the role of startups and Micro, Small, and Medium Enterprises (MSMEs) in promoting sustainable development with specific reference to the Sustainable Development Goals (SDGs). The study analyses how entrepreneurial enterprises contribute to economic growth, employment generation, innovation, environmental sustainability, and social inclusion within the framework of sustainable development. The scope of the research primarily covers the Indian context while also considering global perspectives on sustainable entrepreneurship and enterprise development where relevant.

The study includes an examination of the contributions of startups and MSMEs towards selected SDGs such as poverty reduction, decent work and economic growth, industry and innovation, sustainable production, climate action, and reduced inequalities. It explores the role of these enterprises in sectors including technology, renewable energy, agriculture, manufacturing, healthcare, and digital services. The research also considers the impact of

government initiatives such as Startup India, Make in India, and Digital India in strengthening entrepreneurial ecosystems and supporting sustainable enterprise development (Belz & Binder, 2017).

The scope of the study further extends to analysing the challenges faced by startups and MSMEs in implementing sustainable business practices. Issues related to financial constraints, technological limitations, infrastructure deficiencies, market competition, and regulatory complexities are examined to understand their influence on sustainable growth. The research also investigates the significance of innovation, digital transformation, and green entrepreneurship in supporting sustainability objectives and SDG achievement.

The study is based entirely on secondary data collected from scholarly journals, government reports, policy documents, industry publications, and international sustainability reports published between 2015 and 2024. The research adopts a descriptive and analytical approach to evaluate the relationship between entrepreneurship and sustainable development. However, the study is limited to conceptual and secondary data analysis and does not involve primary field investigation or empirical surveys.

LITERATURE REVIEW

Acs et al. (2018) examined the relationship between entrepreneurship and sustainable economic development and argued that entrepreneurial ecosystems play a crucial role in promoting innovation, productivity, and inclusive growth. The study highlighted that startups contribute significantly to solving social and environmental challenges through technological advancement and market-driven innovation. The authors observed that entrepreneurial ventures often introduce sustainable business models that improve resource efficiency and support long-term economic resilience. The research further emphasised that supportive policy frameworks and institutional infrastructure are essential for enabling startups to contribute effectively to sustainable development goals.

Kuckertz and Wagner (2019) explored the concept of sustainable entrepreneurship and analysed how startups integrate environmental and social concerns into business operations. The study identified that sustainability-oriented startups increasingly focus on renewable energy, waste management, circular economy practices, and green technologies. According to the authors, startups possess greater flexibility and innovation capacity compared with larger corporations, allowing them to respond quickly to sustainability challenges and changing consumer expectations. The research also highlighted that entrepreneurial orientation towards sustainability enhances both social value creation and long-term business competitiveness.

Shepherd and Patzelt (2017) investigated the role of entrepreneurial action in addressing environmental degradation and social inequality. The study argued that sustainable entrepreneurship involves recognising opportunities that generate economic value while simultaneously contributing to environmental protection and community welfare. The authors explained that startups functioning within sustainability-oriented markets often develop innovative products and services that reduce ecological damage and improve quality of life. The study further indicated that entrepreneurs motivated by sustainability objectives frequently contribute to SDGs associated with climate action, clean energy, responsible production, and sustainable communities.

Baporikar (2020) analysed the growth of startups and MSMEs in India and their contribution to economic development and innovation. The study highlighted that government initiatives such as Startup India and Make in India have strengthened entrepreneurial ecosystems and encouraged enterprise creation across various sectors. The author observed that startups contribute significantly to employment generation, technological innovation, and digital transformation in India. MSMEs were also identified as major contributors to industrial production, exports, and regional economic balance. The study suggested that entrepreneurial enterprises can support sustainable development by promoting inclusive growth and reducing socio-economic disparities.

Dhahri and Omri (2018) examined the impact of entrepreneurship on sustainable development across developing economies. The study found that startups and small enterprises contribute positively to economic growth and employment while also supporting environmental sustainability through innovative and resource-efficient practices. The authors argued that entrepreneurial activities improve social welfare by creating income opportunities and enhancing community participation in economic processes. However, the study also identified challenges such as limited financial access, inadequate technological infrastructure, and weak institutional support that often constrain the sustainability potential of MSMEs.

Civelek et al. (2021) focused on sustainable business strategies adopted by MSMEs and startups in emerging economies. The study highlighted that enterprises increasingly recognise the importance of sustainability in improving market competitiveness and consumer trust. The authors observed that digital transformation, green production methods, and circular economy practices are becoming essential components of sustainable business operations. The research further suggested that enterprises implementing sustainability-oriented innovations demonstrate stronger resilience and long-term growth potential. At the same time, the study identified barriers related to regulatory complexities, financial limitations, and lack of sustainability awareness among small enterprises.

Hall et al. (2016) explored innovation and entrepreneurship within the context of sustainable development. The study argued that innovation-driven startups are particularly important in addressing complex global challenges such as climate change, energy scarcity, and urbanisation. According to the authors, entrepreneurial innovation enables the development of environmentally sustainable technologies and socially beneficial services. The study also emphasised the importance of collaboration between governments, industries, educational institutions, and entrepreneurial ecosystems in promoting sustainable innovation and SDG implementation.

George et al. (2021) analysed the role of social entrepreneurship and MSMEs in promoting inclusive development and reducing socio-economic inequalities. The study highlighted that small enterprises often generate employment opportunities for women, youth, and marginalised communities, thereby contributing to poverty reduction and social empowerment. The authors observed that enterprises operating within rural and semi-urban regions support local economic development and decentralised industrialisation. The research also indicated that women-led startups and MSMEs have emerged as important contributors to financial inclusion and gender equality within developing economies.

Brammer et al. (2020) investigated the resilience of startups and MSMEs during the COVID-19 pandemic and their contribution to socio-economic sustainability. The study revealed that many startups adapted rapidly to changing conditions by introducing digital healthcare solutions, online educational platforms, remote service delivery systems, and innovative supply chain mechanisms. MSMEs also played a critical role in maintaining local employment and essential services despite severe economic disruptions. However, the authors noted that smaller enterprises faced major financial and operational challenges due to reduced market demand and limited access to emergency funding. The study highlighted the importance of resilient and sustainable entrepreneurial ecosystems in responding to global crises.

Belz and Binder (2017) examined sustainable entrepreneurship from the perspective of value creation and environmental responsibility. The study argued that sustainability-oriented enterprises seek to balance economic profitability with social and ecological objectives. The authors observed that startups increasingly incorporate sustainable sourcing, ethical production, and environmentally friendly technologies into their operations. The study also highlighted that consumers and investors are becoming more supportive of enterprises demonstrating commitment towards sustainability goals and responsible business practices.

Apostolopoulos et al. (2018) analysed entrepreneurship and regional sustainable development in the context of innovation and socio-economic transformation. The study emphasised that startups and MSMEs strengthen regional economies by generating employment, promoting industrial diversification, and encouraging technological adoption. The authors argued that sustainable entrepreneurship contributes to long-term economic resilience by reducing dependency on traditional industrial models and encouraging local innovation capacities. The study further highlighted the significance of government policies and institutional support in fostering sustainable entrepreneurial ecosystems.

Malerba and McKelvey (2020) explored innovation ecosystems and their role in supporting sustainable entrepreneurial growth. The study highlighted that startups operating in knowledge-intensive sectors such as biotechnology, digital technology, renewable energy, and healthcare contribute significantly to SDG achievement through research-driven innovation. The authors observed that collaboration between universities, industries, investors, and policymakers enhances the sustainability potential of entrepreneurial ventures. The research also noted that startups often act as catalysts for industrial transformation and technological modernisation within emerging economies.

Schaltegger et al. (2016) discussed the concept of business sustainability and the role of entrepreneurial enterprises in achieving environmental and social objectives. The study highlighted that sustainability-oriented startups frequently develop innovative approaches related to resource efficiency, waste reduction, energy conservation, and responsible production systems. According to the authors, small enterprises possess the advantage of operational flexibility, enabling them to adopt sustainable practices more rapidly than large traditional corporations. The research further indicated that sustainability innovation strengthens organisational competitiveness and improves long-term economic performance.

Johnson and Schaltegger (2019) examined the integration of SDGs into entrepreneurial and business strategies. The study argued that startups and MSMEs can contribute significantly to

global sustainability targets by aligning business activities with environmental and social priorities. The authors identified that enterprises adopting sustainability frameworks often demonstrate improved stakeholder relationships, stronger market reputation, and enhanced innovation capabilities. However, the study also highlighted the need for policy incentives, financial assistance, and sustainability education to strengthen SDG integration among smaller enterprises.

Hockerts and Wüstenhagen (2017) analysed the transition from conventional entrepreneurship to sustainable entrepreneurship and discussed the growing importance of green startups. The study observed that environmentally conscious startups increasingly influence market trends by introducing clean technologies, renewable energy solutions, and sustainable consumption models. The authors argued that entrepreneurial innovation is essential for achieving climate action and ecological sustainability objectives. The study further emphasised that sustainable startups contribute not only to economic development but also to long-term environmental protection and social transformation.

METHODOLOGY

The present study adopts a qualitative and descriptive research methodology based entirely on secondary data to analyse the role of startups and MSMEs in promoting sustainable development with reference to the Sustainable Development Goals (SDGs). The research relies on data collected from scholarly journal articles, government publications, policy reports, international sustainability reports, industry analyses, and academic studies published between 2015 and 2024. Relevant literature and statistical information were obtained from authentic academic databases, institutional publications, and recognised research sources related to entrepreneurship, MSMEs, sustainability, and SDGs.

The study uses an analytical approach to examine the contribution of startups and MSMEs towards economic growth, innovation, employment generation, environmental sustainability, and social inclusion. Secondary data from reports published by organisations such as the Ministry of MSME, NITI Aayog, United Nations Development Programme, and OECD were analysed to identify major trends and challenges associated with sustainable entrepreneurship. Comparative and thematic analysis methods were used to interpret the relationship between entrepreneurial activities and SDG achievement. The methodology also includes descriptive interpretation of sustainability-oriented business practices, innovation strategies, and policy initiatives supporting startups and MSMEs within the Indian context.

RESULTS AND DISCUSSION

The analysis of secondary data indicates that startups and MSMEs play a significant role in promoting sustainable development through innovation, employment generation, industrial growth, social inclusion, and environmental sustainability. The findings derived from scholarly literature, policy documents, and institutional reports demonstrate that entrepreneurial enterprises contribute directly and indirectly to several Sustainable Development Goals (SDGs), particularly those associated with poverty reduction, decent work, industrial innovation, responsible production, and climate action. In the Indian context, startups and MSMEs have emerged as important drivers of economic transformation and sustainable growth due to their adaptability, technological orientation, and ability to create localised development opportunities.

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The findings reveal that MSMEs constitute one of the largest contributors to employment generation in India. The sector supports millions of workers across manufacturing, services, retail, agriculture, and technology-related industries. The Ministry of MSME reports indicate that small enterprises contribute substantially to Gross Domestic Product and export earnings while supporting regional industrialisation and inclusive economic growth. These enterprises create employment opportunities for women, youth, and economically weaker populations, thereby contributing to SDG 1 (No Poverty) and SDG 8 (Decent Work and Economic Growth). The growth of MSMEs also reduces regional disparities by encouraging industrial activities in semi-urban and rural areas where large-scale industries may be limited.

Startups have become particularly influential in advancing innovation-driven sustainable development. The findings show that Indian startups increasingly focus on sectors such as renewable energy, agritech, fintech, healthtech, edtech, waste management, electric mobility, and sustainable packaging. These sectors directly support sustainability objectives by improving resource efficiency, reducing environmental impact, and enhancing social accessibility to essential services. Digital financial platforms developed by fintech startups have strengthened financial inclusion and supported small businesses, while healthtech and edtech startups have improved access to healthcare and education services through digital technologies. Such entrepreneurial activities align closely with SDG 3 (Good Health and Well-being), SDG 4 (Quality Education), and SDG 9 (Industry, Innovation and Infrastructure).

The findings further demonstrate that sustainability-oriented startups increasingly adopt environmentally responsible business models. Green startups operating in clean energy, electric vehicles, recycling, and organic agriculture contribute significantly to environmental sustainability by reducing pollution, promoting renewable resources, and encouraging sustainable consumption practices. The adoption of circular economy principles by several startups has also improved waste management and resource utilisation efficiency. These developments indicate that entrepreneurship is gradually transitioning from traditional profit-centred models towards more sustainable and socially responsible business practices.

The following table presents secondary numerical data related to the contribution of MSMEs and startups to sustainable development indicators in India.

Table 1 Contribution of MSMEs and Startups to Selected Sustainable Development Indicators in India

Sustainable Development Indicator	Estimated Contribution (%)
Contribution of MSMEs to GDP	30
Contribution of MSMEs to Exports	45
Employment Generated by MSMEs	110 million persons
Startups Registered under Startup India	100,000+
Green and Sustainability-focused Startups	18
Women-led MSME Enterprises	20
Digital Service-based Startups	35
MSMEs Operating in Rural Areas	51

Source: Compiled from Ministry of MSME Reports (2023), Startup India Reports, and NITI Aayog Sustainability Data.

The numerical data demonstrate the substantial economic and social contribution of MSMEs and startups within the Indian economy. MSMEs contribute nearly one-third of national GDP and account for a significant share of export activities, highlighting their role in economic sustainability. More than half of MSMEs operate in rural regions, indicating their importance in decentralised economic development and employment generation. The increasing number of sustainability-oriented startups also reflects the growing integration of environmental objectives into entrepreneurial ecosystems.

The findings additionally reveal that government initiatives have played a major role in supporting entrepreneurship and sustainable enterprise development. Programmes such as Startup India, Make in India, Digital India, Skill India, and Atmanirbhar Bharat have created favourable conditions for startup growth, digital transformation, and industrial expansion. Policy support through simplified registration processes, financial assistance, tax incentives, incubation centres, and innovation grants has encouraged the establishment of new enterprises across multiple sectors. These initiatives have strengthened entrepreneurial ecosystems and contributed to SDG implementation through economic empowerment and innovation promotion.

Another important observation emerging from the analysis concerns the relationship between innovation and sustainability. Startups demonstrate strong innovation capacity because of their operational flexibility and technological orientation. Many enterprises use artificial intelligence, blockchain, digital platforms, data analytics, and renewable energy technologies to improve productivity and sustainability performance. Agritech startups, for example, have introduced smart irrigation systems, digital agricultural marketplaces, and precision farming methods that improve agricultural efficiency and reduce environmental impact. Similarly, renewable energy startups contribute to clean energy access and carbon reduction through solar, wind, and bioenergy solutions. These developments support SDG 7 (Affordable and Clean Energy) and SDG 13 (Climate Action).

The analysis also highlights the growing significance of social entrepreneurship within the startup ecosystem. Social enterprises combine commercial activities with social objectives related to healthcare, education, rural development, sanitation, and women empowerment. Many startups operating in rural and underdeveloped regions focus on affordable healthcare delivery, skill development, sustainable farming, and financial literacy. Such initiatives contribute to inclusive growth and social sustainability by addressing inequalities and improving access to essential services. Women-led startups and MSMEs have also emerged as important contributors to financial independence, gender equality, and local economic development.

The following table presents a descriptive analysis of the role of startups and MSMEs in relation to selected SDGs.

Table 2 Role of Startups and MSMEs in Achieving Sustainable Development Goals

Sustainable Development Goal	**Role of Startups and MSMEs**
SDG 1: No Poverty	Employment generation and income creation
SDG 3: Good Health and Well-being	Healthtech innovation and affordable healthcare services
SDG 4: Quality Education	Digital learning platforms and skill development

	initiatives
SDG 5: Gender Equality	Promotion of women entrepreneurship and financial inclusion
SDG 7: Affordable and Clean Energy	Renewable energy startups and green technologies
SDG 8: Decent Work and Economic Growth	Industrial expansion and entrepreneurial employment
SDG 9: Industry, Innovation and Infrastructure	Technological innovation and startup ecosystems
SDG 12: Responsible Consumption and Production	Sustainable manufacturing and circular economy practices
SDG 13: Climate Action	Green enterprises and low-carbon business models

Source: Compiled from UNDP Reports, Startup India Data, and Sustainability Research Studies.

The descriptive analysis indicates that startups and MSMEs contribute to multiple dimensions of sustainable development simultaneously. Their activities extend beyond economic growth to include environmental protection, technological innovation, social inclusion, and community development. The integration of sustainability principles into entrepreneurial strategies therefore strengthens the role of enterprises in achieving SDGs.

Despite these positive contributions, the findings identify several challenges affecting the sustainability performance of startups and MSMEs. Limited access to finance remains one of the most significant barriers faced by small enterprises, particularly during the initial stages of operation. Many startups struggle to secure investment for sustainability-oriented projects because of high operational risks and uncertain market conditions. MSMEs also face difficulties related to technological adoption, infrastructure limitations, supply chain disruptions, and regulatory compliance. Such constraints often reduce their ability to implement environmentally sustainable production systems and advanced innovation practices.

The analysis further indicates that awareness regarding SDGs and sustainability frameworks remains uneven among small enterprises. While larger startups in technology and renewable energy sectors increasingly integrate sustainability objectives into business models, many traditional MSMEs continue to prioritise short-term profitability over long-term environmental and social goals. This situation highlights the need for greater sustainability education, entrepreneurial training, and policy support to encourage responsible business practices among small enterprises.

Digital transformation emerged as another important theme within the findings. The COVID-19 pandemic accelerated the adoption of digital technologies among startups and MSMEs, enabling enterprises to continue operations through online platforms, remote services, and digital transactions. Digitalisation improved operational efficiency, market accessibility, and customer engagement while reducing physical resource consumption. However, digital inequality and limited technological infrastructure continue to affect smaller enterprises operating in rural and economically weaker regions.

The findings also suggest that collaboration between government institutions, private investors, educational institutions, and entrepreneurial ecosystems is essential for promoting sustainable enterprise development. Incubation centres, innovation hubs, research institutions, and startup accelerators contribute significantly to entrepreneurial growth by providing mentorship, technical expertise, and financial support. Universities and research organisations also support sustainability-oriented innovation by encouraging entrepreneurial research and technology transfer activities.

Overall, the analysis demonstrates that startups and MSMEs are important contributors to sustainable development and SDG achievement. Their role in generating employment, promoting innovation, supporting environmental sustainability, and encouraging inclusive growth highlights their significance within modern economic systems. At the same time, the findings reveal the necessity of stronger policy support, financial inclusion, technological infrastructure, and sustainability awareness to enhance the long-term contribution of entrepreneurial enterprises towards sustainable development objectives.

CONCLUSION

The study concludes that startups and MSMEs play a vital role in promoting sustainable development and achieving the Sustainable Development Goals (SDGs) through their contributions to economic growth, innovation, employment generation, environmental sustainability, and social inclusion. The analysis demonstrates that entrepreneurial enterprises have become significant drivers of industrial development and socio-economic transformation, particularly in developing economies such as India. Their flexibility, adaptability, and innovation-oriented approaches enable them to respond effectively to emerging sustainability challenges and changing market demands.

The findings indicate that startups contribute substantially to technological innovation, digital transformation, renewable energy solutions, healthcare accessibility, sustainable agriculture, and environmentally responsible business practices. MSMEs, on the other hand, strengthen inclusive development by generating large-scale employment opportunities, supporting rural industrialisation, reducing regional disparities, and encouraging local economic growth. Together, these enterprises contribute directly to several SDGs, including poverty reduction, decent work and economic growth, industry and innovation, responsible production, gender equality, and climate action.

The study further highlights the growing importance of sustainable entrepreneurship in balancing economic profitability with environmental and social responsibilities. Many startups and MSMEs are increasingly adopting green technologies, circular economy practices, and socially responsible business models that support long-term sustainability objectives. Government initiatives such as Startup India, Make in India, Digital India, and Atmanirbhar Bharat have also strengthened entrepreneurial ecosystems and encouraged sustainable enterprise development across multiple sectors.

However, the research also identifies major challenges affecting the sustainability potential of startups and MSMEs, including financial constraints, limited technological access, infrastructural deficiencies, regulatory complexities, and inadequate awareness regarding SDGs. These challenges indicate the need for stronger institutional support, policy

interventions, financial assistance, and sustainability-oriented capacity building to enhance the contribution of entrepreneurial enterprises towards sustainable development.

Overall, the study establishes that startups and MSMEs are essential components of sustainable economic progress and inclusive growth. Their ability to integrate innovation, entrepreneurship, and sustainability makes them important actors in supporting long-term national and global development objectives.

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