Economic Sciences
https://economic-sciences.com
ES(2026) 22, (2), 208-221 | ISSN:1505-4683

Public Policy Initiatives and Entrepreneurship Development in India: Evidence from MSMEs and Startups

Dr. P. Hanumantha Rao[1], Dr. Ajay Kumar Sinha[2]
[1]Sr. Associate Professor, NICMAR University of Construction Studies, Hyderabad
Email: hanu.finance@gmail.com
[2]Associate Professor, NICMAR University of Construction Studies, Hyderabad
Email: ajay_sinha07@hotmail.com

Abstract

The goal of this study is to determine how well public policy efforts support sustainable entrepreneurship in India by assessing their impact on the expansion and formalization of startups and Micro, Small, and Medium-Sized Enterprises (MSMEs). It looks into whether new policy initiatives have boosted entrepreneurship and promoted equitable and sustainable economic growth. Using secondary data from official sources, such as the Ministry of MSME, DPIIT, Startup India, Udyam Registration Portal, RBI, SIDBI, MOSPI, and the Press Information Bureau, the study employs a quantitative descriptive research approach for the years 2020–2025. To evaluate changes in entrepreneurship indicators after significant policy reforms, descriptive statistics, trend analysis, year-over-year growth analysis, and compound annual growth rate (CAGR) are used. The results show that India's entrepreneurial ecosystem has been greatly enhanced by policy initiatives including Startup India, Udyam Registration, the updated MSME definition, RAMP, and the Udyam Assist Platform. MSME registrations rose from 0.67 crore to 6.19 crore throughout the study period, and startup recognition grew significantly, indicating improved business formalization, innovation, financial inclusion, employment creation, and regional entrepreneurial development. These results show how equitable growth, economic resilience, and the advancement of sustainable development have all benefited from supportive public policies.

Key Words: *Sustainable Entrepreneurship, Public Policy, MSMEs, Startups, India*

1. Introduction

It is commonly acknowledged that entrepreneurship stimulates economic expansion, innovation, job creation, and competitiveness. However, the focus of entrepreneurship has broadened in recent years to include social well-being and environmental sustainability in addition to economic value generation. The idea of sustainable entrepreneurship, which combines entrepreneurial innovation with sustainable development by establishing businesses that concurrently provide economic, social, and environmental value, was born out of this evolution. In addition to pursuing financial success, sustainable entrepreneurs tackle societal issues like inequality, resource scarcity, climate change, and inclusive development. As a result, governments all over the world are beginning to see entrepreneurship as a strategic tool for accomplishing the Sustainable Development Goals (SDGs) of the UN, especially those pertaining to innovation, sustainable industrialization, decent work and economic growth, and responsible production and consumption.

Through its effects on market possibilities, infrastructure, education, innovation assistance, regulatory frameworks, and financial access, public policy plays a crucial role in forming entrepreneurial ecosystems. Governments aim to lower barriers to business creation and promote innovation-driven firms through fiscal incentives, startup finance, incubation programs, entrepreneurship development efforts, digital infrastructure, and regulatory reforms. In recent times, the focus of entrepreneurship strategies has changed from just expanding the number of new enterprises to supporting companies that can produce sustainable social, economic, and environmental results. As a result, determining whether public policies successfully encourage sustainable entrepreneurship has grown in importance for scholars and decision-makers.

Economic Sciences
https://economic-sciences.com
ES(2026) 22, (2), 208-221 | ISSN:1505-4683

An essential setting for analyzing this relationship is India. With one of the fastest-growing economies in the world, India has created a thriving entrepreneurial ecosystem that is bolstered by quick digitalization, cutting-edge technology, and a booming startup scene. The foundation of the Indian economy is made up of Micro, Small, and Medium-Sized Enterprises (MSMEs), which have a major impact on employment, industrial production, exports, and regional development. Similarly, India now has one of the biggest startup ecosystems in the world, encompassing industries like manufacturing, financial technology, healthcare, agriculture, education, and renewable energy.

The Government of India has launched a number of policy initiatives, such as Startup India, Stand-Up India, the Pradhan Mantri Mudra Yojana, Atal Innovation Mission, Digital India, Make in India, and Production Linked Incentive (PLI) schemes, in recognition of the significance of entrepreneurship for economic transformation. These programs seek to increase financing availability, bolster innovative capacities, streamline regulations, foster technology use, and support business growth.

There is still little empirical data to support the effectiveness of these broad policy measures in promoting sustainable entrepreneurship. The majority of policy assessments concentrate on conventional metrics like the creation of startups, the creation of jobs, the distribution of credit, or the attraction of investment. Although these metrics assess entrepreneurial activity, they don't offer much information on whether policy support improves long-term business resilience, social value creation, environmental responsibility, and innovation capability. It is crucial to assess policy achievements beyond traditional economic metrics since sustainable entrepreneurship necessitates that businesses strike a balance between financial performance, environmental stewardship, and social impact.

Research that has already been done recognizes the value of institutional support in encouraging entrepreneurial activity, although results regarding the efficacy of entrepreneurship policies are still equivocal. While some studies emphasize implementation difficulties, bureaucratic complexity, unequal accessibility, and regional disparities that limit policy effectiveness, others contend that government support increases firm growth, innovation, and competitiveness by lowering financial and institutional barriers. Furthermore, a large portion of the information that is now accessible comes from industrialized economies, which limits its relevance to emerging economies like India, where institutional conditions, resource availability, and entrepreneurial ecosystems differ significantly.

Previous research in the Indian context has mostly focused on specific policy initiatives or discrete aspects of entrepreneurship, such financing availability, innovation, startup promotion, or ease of doing business. Comparatively few researches have examined how the integration of social, environmental, and economic aspects of public policy support affects sustainable entrepreneurship. Additionally, the methods by which policy support results in sustained entrepreneurial achievements have received less consideration. In example, despite its significance in helping businesses convert resources made possible by policy into long-term competitive advantages, the mediating role of innovation capability is still understudied.

This study investigates whether public policies encourage sustainable entrepreneurship among Indian MSMEs and startups in order to close these disparities. It specifically looks into the connection between sustainable entrepreneurial performance, innovation capacity, and public policy assistance. The study is based on the Resource-Based View (RBV), which holds that businesses can gain a sustainable competitive advantage by efficiently utilizing valuable resources and capabilities, and Institutional Theory, which explains how supportive regulations, incentives, and government interventions create an enabling entrepreneurial environment. A thorough understanding of how public policies affect entrepreneurial sustainability through skill development can be obtained by integrating various viewpoints.

This study makes three important contributions to the literature on public policy and entrepreneurship.

Economic Sciences
https://economic-sciences.com
ES(2026) 22, (2), 208-221 | ISSN:1505-4683

First, it expands knowledge of sustainable entrepreneurship in emerging economies by combining sustainability and public policy into a single paradigm. Second, it offers actual data from India, where national development initiatives heavily rely on entrepreneurship but there is still conflicting data regarding the efficacy of policies. Third, the study provides insights into how policy support translates into sustainable entrepreneurial outcomes by looking at innovation capability as a mediating mechanism. It is anticipated that the results would help policymakers create more effective entrepreneurship policies that support India's shift to inclusive and sustainable economic growth while fostering innovation, resilience, and sustainable business development.

2. Literature Review

According to the literature, public policy has a significant institutional impact on entrepreneurship by affecting regulatory quality, innovation assistance, financing availability, and entrepreneurial ecosystems. According to recent research, entrepreneurship strategies should promote innovation, resilience, and sustainability in addition to increasing the number of startups. Additionally, research shows that the main way that policy support transfers into sustainable entrepreneurial performance is through innovation capabilities. However, the majority of empirical research has been done in developed economies, and the information from India is still mostly descriptive and scattered. With little integration of policy support, innovation capability, and sustainable entrepreneurship into a single empirical framework, the majority of current Indian research concentrate on specific efforts like Startup India, MSME funding, or social entrepreneurship.

Thus, there is a substantial study gap on whether public policies encourage sustainable entrepreneurship among Indian MSMEs and startups and whether this link is mediated by innovation potential. Closing this gap would provide evidence-based suggestions for bolstering India's entrepreneurial environment and add to the literature on sustainability, public policy, and entrepreneurship. The detailed summary of the literature review is in table 1.

Table 1: Summary of Literature Review

Author(s)	Year	Context	Methodology	Major Findings	Research Gap
Namita Kaushik & Ramesh Chandra Dangwal	2025	Global	Bibliometric Review	Sustainable entrepreneurship has evolved rapidly, emphasizing the triple-bottom-line and SDGs. Institutional support is a key research theme.	Limited empirical evidence from emerging economies like India.
Antonio Di Vaio et al.	2022	Global	Systematic Literature Review	Sustainable entrepreneurship depends on innovation capability and sustainable business models throughout the venture life cycle.	Few studies examine the influence of public policy on sustainable entrepreneurial outcomes.
M. Abbas & M. Bulut	2024	Global	Systematic Review	Research on sustainable entrepreneurship has expanded considerably but remains fragmented across theories and methods.	Calls for integrated models combining institutions, innovation, and sustainability.
Erik Stam & Andrew van de Ven	2021	Europe	Conceptual Framework	Entrepreneurial ecosystems require coordinated policy interventions involving finance, education, markets, and institutions.	Framework lacks validation in emerging economies such as India.
David Audretsch & Maxim Belitski	2021	Europe	Econometric Analysis	Institutional quality significantly improves innovation-led entrepreneurship and regional competitiveness.	Sustainability outcomes are not explicitly considered.

Economic Sciences
https://economic-sciences.com
ES(2026) 22, (2), 208-221 | ISSN:1505-4683

Erkko Autio et al.	2018	OECD Countries	Policy Analysis	Entrepreneurial ecosystems flourish when policy combines finance, innovation, education, and institutional quality.	Limited evidence from developing countries.
Ross Brown & Colin Mason	2017	UK	Policy Review	Entrepreneurship policies should prioritize scaling innovative firms rather than increasing startup numbers.	Applicability to developing economies remains unclear.
Manjunath Agalagurki Nagaraj et al.	2025	India	Policy Analysis	Evaluation of Startup India shows that entrepreneurial experimentation requires flexible policy support rather than rigid administrative mechanisms.	Sustainability performance of supported firms remains unexplored.
Ramesh Soni et al.	2025	India	Conceptual Analysis	India's policy reforms, digital infrastructure, and geopolitical positioning have strengthened entrepreneurial opportunities and innovation ecosystems. (MDPI)	Empirical evidence linking reforms to sustainable entrepreneurship is lacking.
Parul Gupta & Ritu Srivastava	2024	India	Systematic Literature Review	Social enterprises significantly contribute to sustainable development through innovation and stakeholder engagement. (Taylor & Francis Online)	More quantitative studies on policy effectiveness are required.
S. M. Khokhawala & R. Iyer	2022	India	Multiple Case Study	Sustainable entrepreneurs create environmental and social value through innovation and stakeholder collaboration.	Limited generalizability because of small sample size.
Organisation for Economic Co-operation and Development	2023	OECD Countries	Policy Report	Entrepreneurship policies are most effective when integrated with innovation, skills, finance, and digital transformation.	Recommendations require validation in developing economies.
Department for Promotion of Industry and Internal Trade	2023	India	Government Report	Startup India has significantly increased startup registrations, incubation support, and entrepreneurial awareness.	Long-term sustainability and firm performance have not been systematically assessed.
Small Industries Development Bank of India	2024	India	Sector Report	MSMEs continue to face financing constraints despite policy interventions aimed at improving credit accessibility.	Relationship between policy support and sustainable business performance remains underexplored.
Reserve Bank of India	2024	India	Financial Sector Report	Although institutional lending to MSMEs has improved, access to affordable finance remains uneven across regions and firm sizes.	More research is needed on how financial policies affect innovation and sustainability outcomes.

A detailed survey of literatures states that sustainable entrepreneurship is increasingly recognized as a key driver of inclusive economic development and long-term sustainability (Kaushik & Dangwal, 2025; Rosário et al., 2022). Entrepreneurial ecosystems supported by effective institutions, innovation systems, and digital infrastructure foster entrepreneurial growth and competitiveness (Autio et al., 2018; Audretsch & Belitski, 2021; Stam & Van de Ven, 2021). Public policies that facilitate innovation, finance, and business formalization improve entrepreneurial performance and firm resilience (Brown & Mason, 2017; Mendes et al., 2022; Ferreira & Ferreira, 2023). Furthermore, sustainable entrepreneurship increasingly depends on digital capabilities,

Economic Sciences
https://economic-sciences.com
ES(2026) 22, (2), 208-221 | ISSN:1505-4683

innovation orientation, and supportive institutional environments that enable firms to generate economic, environmental, and social value (Di Vaio et al., 2022; Xu et al., 2022; Gerlich et al., 2025). Although the literature on sustainable entrepreneurship has expanded considerably, empirical evidence from emerging economies such as India remains limited, highlighting the need for studies examining the effectiveness of public policy interventions in promoting sustainable entrepreneurial development (Abbas & Bulut, 2024; Khokhawala & Iyer, 2022; Nagaraj et al., 2025; Zahra & Wright, 2016).

2.1 Research Gap

There are still significant study gaps even though earlier studies have demonstrated the value of public policy in fostering entrepreneurship and acknowledged sustainable entrepreneurship as a major force behind inclusive economic growth. Few researches explore whether public policy assistance leads to sustainable entrepreneurship that encompasses economic, social, and environmental results; the majority of available studies concentrate on startup development, access to financing, or individual policy initiatives. Additionally, a large portion of the empirical data comes from industrialized economies, which restricts its relevance to the Indian setting. The impact of governmental assistance on sustainable entrepreneurial development has received little attention in research on Indian MSMEs and startups, which has mostly assessed individual government initiatives. In order to provide evidence for more effective entrepreneurship and sustainability policies, empirical research examining the relationship between public policy support and sustainable entrepreneurship in India is therefore necessary.

Objectives of the study: The study aims

1. To assess trends in entrepreneurship following major policy initiatives
2. To evaluate the impact of sustainable entrepreneurship on economic growth and business sustainability.
3. To provide policy recommendations for strengthening sustainable entrepreneurship in the Indian entrepreneurial ecosystem.

4. Research Methodology

3.1 Research Design

This study utilizes a quantitative, descriptive, and analytical research design based only on secondary data to assess whether public policy measures have supported sustainable entrepreneurship in India. The study evaluates the relationship between major government policy interventions and the growth of Micro, Small and Medium Enterprises (MSMEs) and startups by analyzing national-level indicators of entrepreneurship, business formalization, employment generation, innovation, and economic contribution. A longitudinal approach is applied to examine developments over the period 2020–2025, during which several key policy modifications were adopted.

3.2 Data Sources

The study only uses secondary data that was gathered from reliable institutional records and government sources. The following sources were used to compile the data:

- Ministry of Micro, Small and Medium Enterprises (MSME), Government of India
- The Department of Industry and Internal Trade Promotion (DPIIT)
- India's Startup Portal
- The Udyam Registration Website
- Press Information Bureau (PIB)
- Ministry of Statistics and Programme Implementation (MOSPI)
- The Reserve Bank of India (RBI)
- The Indian Small Industries Development Bank (SIDBI)
- The Open Government Data (OGD) Platform
- Economic Survey of India
- Union Budget Documents (2020–2025)
- Reports from the World Bank and OECD, when applicable

These sources provide official statistics on MSME registrations, startup recognition, employment generation, access to finance, exports,

Economic Sciences
https://economic-sciences.com
ES(2026) 22, (2), 208-221 | ISSN:1505-4683

manufacturing output, and entrepreneurship-related policy initiatives.

3.3 Period of the Study

The analysis covers the period from 2020 to 2025. This period was selected because it encompasses major entrepreneurship-related policy reforms, including the revised MSME definition, Udyam Registration, Emergency Credit Line Guarantee Scheme (ECLGS), MSME Champions Scheme, Raising and Accelerating MSME Performance (RAMP), Udyam Assist Platform, PM Vishwakarma Scheme, Zero Defect Zero Effect (ZED) expansion, and the revised MSME classification announced in the Union Budget 2025–26.

3.4 Variables of the Study

The study evaluates the effectiveness of public policies using selected indicators of sustainable entrepreneurship. The indicators of policy initiative is given in table 2.

Table 2: Indicators of Policy Initiatives

Variable	Indicators	Source
Public Policy Support	Major entrepreneurship and MSME policy initiatives (2020–2025)	PIB, MSME, DPIIT
Entrepreneurship Development	Number of DPIIT-recognized startups, MSME registrations	DPIIT, Udyam Portal
Innovation and Competitiveness	Startup growth, incubation support, technology adoption schemes	Startup India, DPIIT
Economic Contribution	GDP contribution, manufacturing output, exports, employment	MOSPI, MSME Annual Reports
Sustainable Entrepreneurship Outcomes	Business formalization, regional expansion, employment generation, inclusive entrepreneurship	MSME, Startup India

3.5 Analytical Techniques

The study examines changes in entrepreneurial indices after government policies are put into place using descriptive and trend-based analytical methodologies. The analysis includes:

- Tables, percentages, and summary statistics are examples of descriptive statistics.
- Analysis of increase from year to year
- CAGR, or compound annual growth rate
- Analysis of trends
- Comparative evaluation of entrepreneurial metrics and policy initiatives
- A visual display with bar and line charts
- Analysis of policy based on official government documents
- To assess the extent of changes in entrepreneurial activity during the research period, growth rates and percentage changes are calculated as needed.

3.6 Analytical Framework

The research employs a four-stage paradigm for policy evaluation:

- Listing the main public policy actions pertaining to entrepreneurship that were put into effect between 2020 and 2025.
- Gathering secondary data on the growth of startups, MSME development, employment creation, innovation, exports, and economic impact.
- A comparison and trend study of entrepreneurial metrics prior to and following significant legislative changes.
- Interpretation of results to determine whether policy actions supported equitable economic development and sustainable entrepreneurship.

3.7 Scope of the Study

The study focuses on national-level public policy efforts influencing Indian MSMEs and startups. It explores entrepreneurship from the standpoint of sustainability by analyzing economic, social, and institutional characteristics expressed in company formalization, innovation, employment generation, regional development, and enterprise growth. Since the research is based on aggregate secondary data,

Economic Sciences
https://economic-sciences.com
ES(2026) 22, (2), 208-221 | ISSN:1505-4683

firm-level behavioral differences are beyond the scope of the study.

3.8 Limitations of the Study

First, it limits control over data collection and variable measurement by relying solely on secondary data from institutional reports and government organizations. Second, the results show correlations but not causal links between policy measures and entrepreneurial indices. Third, differences across industries, geographical areas, or specific businesses are not considered because the analysis is done at the national level. Lastly, the analysis does not evaluate the long-term consequences of recent policy actions because it is limited to the years 2020–2025.

5. Analysis and Interpretation:

Between 2020 and 2025, the Government of India implemented a series of policy reforms aimed at strengthening the Micro, Small and Medium Enterprises (MSME) sector. These initiatives focused on promoting enterprise formalization, improving access to finance, supporting business recovery in the aftermath of the COVID-19 pandemic, enhancing competitiveness through technology adoption and digitalization, encouraging export growth, fostering sustainable manufacturing practices, and facilitating enterprise expansion through revised MSME classification criteria and integrated digital support mechanisms. The major policy initiatives introduced and features during this period are summarized in the table 3.

Table 3: Features of Policy Initiatives

Year	Policy Initiative	Objective	Key Features
2020	Udyam Registration Portal	Formalization of MSMEs	Introduced a paperless, Aadhaar-based online registration system replacing Udyog Aadhaar, simplifying registration and improving access to government schemes. (Press Information Bureau)
2020	Revised MSME Definition	Expand MSME coverage	Revised investment and turnover criteria and removed the distinction between manufacturing and service enterprises, enabling more firms to qualify as MSMEs. (Press Information Bureau)
2020	Emergency Credit Line Guarantee Scheme (ECLGS)	COVID-19 business support	Provided collateral-free guaranteed loans to MSMEs affected by the pandemic to improve liquidity and business continuity. (Press Information Bureau)
2020	Subordinate Debt Scheme for Stressed MSMEs	Revival of distressed firms	Facilitated subordinate debt for stressed but viable MSMEs through the Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE). (Press Information Bureau)
2020	Fund of Funds for MSMEs	Equity financing	Established a Fund of Funds to provide equity support to growth-oriented MSMEs and facilitate their expansion. (Press Information Bureau)
2020	Restriction on Global Tenders up to ₹200 Crore	Promote domestic procurement	Prohibited global tenders for government procurement below ₹200 crore to create greater market opportunities for Indian MSMEs. (Press Information Bureau)
2021	MSME Champions Scheme	Competitiveness and technology adoption	Integrated several schemes under three components: MSME-Sustainable (ZED), MSME-Innovative (Incubation, IPR, Design), and MSME-Competitive (Lean Manufacturing). (ni-msme)
2021	Revamped Credit Guarantee Scheme (CGTMSE)	Improve access to finance	Enhanced guarantee coverage and expanded collateral-free credit support for micro and small enterprises.
2022	Raising and Accelerating MSME Performance (RAMP)	Strengthen MSME ecosystem	World Bank-supported programme focusing on market access, institutional strengthening, credit access, delayed payment resolution, and technology adoption. (MSME)
2022	Capacity Building of First-Time MSME Exporters (CBFTE)	Export promotion	Supported first-time exporters through training, certification, quality improvement, and export readiness initiatives. (MSME)
2023	Udyam Assist Platform (UAP)	Formalization of informal enterprises	Enabled informal micro enterprises to obtain formal recognition and access priority sector lending and government benefits. (Press Information Bureau)

Economic Sciences
https://economic-sciences.com
ES(2026) 22, (2), 208-221 | ISSN:1505-4683

2023	PM Vishwakarma Scheme	Support traditional artisans	Provided skill training, concessional credit, digital support, toolkit incentives, and market linkages for artisans and traditional craftsmen, many of whom operate as micro enterprises. (MSME)
2024	Expansion of ZED (Zero Defect Zero Effect) Certification	Sustainable manufacturing	Encouraged MSMEs to adopt quality management, resource efficiency, environmental sustainability, and global manufacturing standards. (My MSME)
2025	Revised MSME Classification Limits (Union Budget 2025–26)	Encourage enterprise growth	Increased investment and turnover thresholds, allowing firms to scale up without losing MSME status and associated benefits. (Press Information Bureau)
2025	Enhanced Digital Formalization and MSME Support Measures	Improve competitiveness	Expanded digital registration, credit support, technology assistance, infrastructure development, and market access initiatives to strengthen MSME competitiveness. (Press Information Bureau)

As a result of these initiatives, the number of startups recognized by the Government of India under the Startup India initiative increased substantially from 14,852 in 2020 to 34,294 in 2024, representing an overall growth of approximately 131% during the five-year period. Despite the economic disruptions caused by the COVID-19 pandemic, startup registrations continued to rise, reflecting the resilience of India's entrepreneurial ecosystem. The strongest expansion occurred between 2020 and 2023, driven by policy support, increased digital adoption, improved access to funding, and a favorable innovation environment. Although the number of newly recognized startups declined marginally from 34,841 in 2023 to 34,294 in 2024 (a decrease of about 1.6%), the overall trend indicates a mature and stable startup ecosystem with sustained entrepreneurial activity. The Growth Trend of DPIIT-Recognized Start-ups under the Start-up India Initiative (2020–2024) is given in table 4.

Table 4: Growth Trend of DPIIT-Recognized Start-ups under the Start-up India Initiative (2020–2024)

Year	DPIIT-Recognized Startups (Annual)	Growth Trend
2020	14,852	Rapid growth despite the COVID-19 pandemic
2021	20,282	Strong recovery supported by Startup India and digital entrepreneurship
2022	26,595	Continued expansion driven by innovation and government incentives
2023	34,841	Significant increase in startup formation across sectors
2024	34,294	Stable entrepreneurial ecosystem with sustained startup activity

Source: Department for Promotion of Industry and Internal Trade (DPIIT), Startup India; Open Government Data (OGD) Platform, Government of India

Based on the annual number of DPIIT-recognized companies, the data in the table shows a robust and consistent increase in entrepreneurial activity in India between 2020 and 2024. The resiliency of India's entrepreneurial ecosystem is demonstrated by the rise in startup recognition from 14,852 in 2020 to 20,282 in 2021, despite the economic difficulties brought on by the COVID-19 epidemic. The good effects of government efforts like Startup India, better access to funding, digital infrastructure, incubation support, and a favorable regulatory environment are reflected in the upward trend that continued in 2022 (26,595 companies) and reached 34,841 businesses in 2023. Even though there were only 34,294 newly recognized startups in 2024, the amount of entrepreneurial activity was still far higher than in prior years. This little decrease reflects a period of equilibrium after several years of fast expansion rather than a declining ecosystem. Overall, the findings show that India has seen impressive increase in entrepreneurship during the research period, underscoring the growing importance of innovation-driven economic development and supporting public policies in bolstering the nation's startup ecosystem. The **trend**

Economic Sciences
https://economic-sciences.com
ES(2026) 22, (2), 208-221 | ISSN:1505-4683

analysis using **2020 as the base year (2020 = 100)** to analyze trends over time is summarized in table 5.

Table 5: Trend Analysis of DPIIT-Recognized Startups (Base Year: 2020 = 100)

Year	DPIIT-Recognized Startups	Trend Value (2020 = 100)	Annual Growth (%)	Interpretation
2020	14,852	100	–	Base year
2021	20,282	136.56	36.56	Strong growth following policy support and digital entrepreneurship.
2022	26,595	179.07	31.12	Continued expansion of the startup ecosystem.
2023	34,841	234.59	31	Highest startup registrations during the study period.
2024	34,294	230.91	–1.57	Slight decline, indicating stabilization after rapid growth.

6. Discussion

According to the trend research, there were 34,294 DPIIT-recognized companies in 2024 compared to 14,852 in 2020. The trend value reached 230.91 in 2024 using 2020 as the base year (100), showing that startup recognition more than doubled over the course of the five years. In 2023, the greatest trend value (234.59) was noted, indicating a surge in entrepreneurial growth bolstered by government programs like Startup India, a rise in digital use, and easier access to capital. The trend stayed far above the base year even though 2024 saw a slight fall of 1.57% from 2023, indicating that the entrepreneurial ecosystem has entered a phase of steady and persistent expansion.

Now coming to the MSMEs growth post policy initiative, table 6 contains the data on the cumulative registered MSMEs:

Table 6: Growth Trend of MSME in India

Financial Year	Cumulative Registered MSMEs (Crore)*	Growth Trend
2020–21	0.67	Launch of the Udyam Registration Portal and beginning of MSME formalization
2021–22	0.8	Steady growth following simplified digital registration
2022–23	1.64	Significant increase driven by policy support and improved access to formal registration
2023–24	4.12	Rapid expansion following the introduction of the Udyam Assist Platform and enhanced MSME schemes
2024–25	6.19	Continued strong growth in MSME formalization and registration across India

Source: Ministry of MSME, Government of India; Udyam Registration Portal; Press Information Bureau (2026).

The table shows that during the course of the five years, the number of registered MSMEs in India increased significantly. The MSME sector's formalization has advanced significantly, as seen by the total registrations rising from 0.67 crore in FY 2020–21 to 6.19 crore in FY 2024–25. The Udyam Assist Platform, which made it easier for informal microbusinesses to join the formal economy, and the Udyam Registration Portal, which streamlined the registration process through a completely digital and paperless system, are two examples of government initiatives that have had a positive impact.The significant rise seen starting in FY 2022–2023 indicates that more businesses have registered under the MSME framework as a result of governmental initiatives targeted at enhancing access to capital, technology, market opportunities, and institutional support. The ongoing rising trend also suggests that entrepreneurs are becoming more conscious of the advantages of official registration, such as better access to credit, government incentives, subsidies, and chances for public procurement. Overall, the figures show how well recent policy changes have strengthened India's MSME ecosystem and

Economic Sciences
https://economic-sciences.com
ES(2026) 22, (2), 208-221 | ISSN:1505-4683

encouraged economic growth driven by entrepreneurship.

5.1 Trend Analysis of Registered MSMEs in India (2020–21 to 2024–25)

The data indicate a strong and accelerating growth trend in the number of registered MSMEs in India following the introduction of digital registration reforms and policy interventions. The cumulative number of registered MSMEs increased from 0.67 crore in 2020–21 to 6.19 crore in 2024–25, representing an increase of more than 824% over five years. This substantial growth reflects the success of government initiatives aimed at promoting business formalization, improving access to finance, and expanding the reach of support schemes. Table 7 contains trend analysis of growth of MSME in India.

Table 7: Trend Analysis of Growth of MSME in India

Financial Year	Registered MSMEs (Crore)	Annual Increase (Crore)	Year-on-Year Growth (%)
2020–21	0.67	–	–
2021–22	0.8	0.13	**19.40%**
2022–23	1.64	0.84	**105.00%**
2023–24	4.12	2.48	**151.20%**
2024–25	6.19	2.07	**50.20%**

Year-wise Trend Analysis

2020–21:
The registration of **0.67 crore MSMEs** marked the initial phase of formalization following the launch of the **Udyam Registration Portal**. The Aadhaar-based online registration system significantly simplified the registration process and laid the foundation for expanding the formal MSME sector.

2021–22:
Registrations increased to 0.80 crore, recording a 19.4% growth over the previous year. Although the growth rate was modest, it reflected increasing awareness among enterprises about the benefits of formal registration and access to government support.

2022–23:
The number of registered MSMEs doubled to 1.64 crore, representing a 105.0% annual growth**.** This sharp increase can be attributed to the revised MSME definition, expanded credit support, and improved implementation of government schemes, encouraging more enterprises to enter the formal economy.

2023–24:
Registrations rose dramatically to 4.12 crore, the highest annual increase during the study period, with a 151.2% growth rate. The introduction of the Udyam Assist Platform (UAP) enabled informal micro-enterprises to register more easily, substantially accelerating MSME formalization.

2024–25:
Registered MSMEs reached 6.19 crore, reflecting a further 50.2% increase. Although the growth rate moderated compared with the previous year, the continued expansion indicates sustained success in extending formal registration to previously unregistered enterprises across India.

5.2 Overall Trend

The trend reveals three distinct phases:

- Initial Adoption (2020–21 to 2021–22): Gradual growth following the launch of the Udyam Registration Portal.
- Rapid Expansion (2022–23 to 2023–24): Accelerated registrations driven by policy reforms, digital governance, and the Udyam Assist Platform.
- Sustained Consolidation (2024–25): Continued growth at a relatively slower pace, indicating increasing maturity of the formal MSME ecosystem.

Overall, the data suggest that India's MSME registration system has undergone a structural transformation, with digitalization and supportive government policies significantly increasing business formalization. The rise in registered

Economic Sciences
https://economic-sciences.com
ES(2026) 22, (2), 208-221 | ISSN:1505-4683

MSMEs is expected to improve access to institutional credit, technology, government procurement, and market opportunities, thereby enhancing productivity, employment generation, and long-term economic growth. Between 2020–21 and 2024–25, cumulative MSME registrations increased from 0.67 crore to 6.19 crore, an overall increase of 5.52 crore enterprises (approximately 824% cumulative growth), highlighting one of the fastest episodes of business formalization in India's MSME sector. Key Indicators for Measuring Startup Growth in India (2025) is summarized in table 8.

Table 8: Key

Indicator	Latest Available Statistics	Significance for Start-up Growth
DPIIT-recognized startups	2,07,135 (as of 31 December 2025)	Measures the size and expansion of the formal startup ecosystem.
New startups recognized	49,429 (2025)	Indicates annual entrepreneurial activity and startup formation.
Direct employment generated	21.9 lakh jobs	Reflects the contribution of startups to employment generation.
Number of unicorns	100+ unicorns	Measures the maturity and global competitiveness of the startup ecosystem.
Startup India Seed Fund	₹590.93 crore sanctioned to 3,271 startups	Indicates government support for early-stage innovation.
Fund of Funds for Startups (FFS)	₹25,547.98 crore invested through Alternative Investment Funds (AIFs) in 1,371 startups	Reflects institutional financing available to startups.
Women-led startups	Over 73,000 recognized startups have at least one-woman director	Measures inclusiveness and diversity in entrepreneurship.
Geographical coverage	Startups present across all States and Union Territories	Indicates the regional spread of entrepreneurship.
District coverage	Startups operating in 780+ districts	Demonstrates the diffusion of entrepreneurial activity beyond major cities.
Tier-2 and Tier-3 cities	53% of recognized startups are located in Tier-2 and Tier-3 cities	Highlights the decentralization and inclusiveness of India's startup ecosystem.
States/UTs with Startup Policy	32	Reflects the policy environment supporting entrepreneurship.

Indicators for Measuring Startup Growth in India (2025)

Sources: Startup India; DPIIT Startup India Initiative; India Startup Statistics (official data compilation).

The data in the table shows how India's startup ecosystem has grown remarkably and how the nation has become one of the world's top centers for entrepreneurship. India had 2,07,135 DPIIT-recognized firms as of December 31, 2025, demonstrating consistent development in entrepreneurship from the Startup India initiative's inception in 2016. 49,429 new businesses were identified in 2025 alone, demonstrating the ongoing trend of new venture formation. These firms have collectively provided 21.9 lakh direct employment opportunities, emphasizing their substantial contribution to job creation and inclusive economic development.

The presence of more than 100 unicorns indicates the growing maturity, innovation potential, and global competitiveness of the Indian startup ecosystem. With the Startup India Seed Fund Scheme approving ₹590.93 crore to 3,271 entrepreneurs and the Fund of Funds for entrepreneurs (FFS) enabling investments of ₹25,547.98 crore in 1,371 firms through Alternative Investment Funds, government support has been instrumental in this expansion. These programs have boosted the entrepreneurial ecosystem and increased access to early-stage financing. The information also shows how entrepreneurship in India is becoming more inclusive and geographically diverse. Women are becoming more involved in entrepreneurship, as evidenced by the fact that over 73,000 recognized firms have at least one female director. Now operating in more than 780 districts across all States and Union Territories, 53% of

Economic Sciences
https://economic-sciences.com
ES(2026) 22, (2), 208-221 | ISSN:1505-4683

startups are found in Tier-2 and Tier-3 cities, indicating that entrepreneurial growth is no longer centered in urban areas. Additionally, the development of 244 incubators under the Startup India Seed Fund Scheme and the adoption of startup policies by 32 States and Union Territories demonstrate the improvement of the institutional and policy environment promoting innovation and entrepreneurship. All things considered, these metrics show that India's startup ecosystem has grown significantly in terms of business formation, job creation, investment mobilization, regional development, and innovation infrastructure. The data indicates that persistent public policy initiatives have been crucial in promoting the growth of entrepreneurship and bolstering India's innovation-driven economy. The Contribution of Sustainable Entrepreneurship (MSMEs) to India's Economic Growth is presented in table 9.

Table 9: Contribution of Sustainable Entrepreneurship (MSMEs) to India's Economic Growth

Economic Indicator	Latest Value	Contribution to Economic Growth
Contribution to India's GDP (GVA)	30.1% (2022–23)	national income and economic output.MSMEs are a major contributor to
Share in Manufacturing Output	35.40%	Supports industrial production and value addition.
Share in India's Exports	45.73% (2023–24)	Strengthens export earnings and global competitiveness.
Employment Generated	20.39 crore persons (July 2024, Udyam & UAP registrations)	Largest source of non-agricultural employment in India.
Registered MSMEs	Over 6.19 crore (FY 2024–25)	Reflects increasing business formalization and entrepreneurial activity.
Share of Industrial Units	Over 95%	MSMEs constitute the overwhelming majority of industrial enterprises in India.
Contribution to Regional Development	Presence across all States and UTs	Promotes balanced regional and rural industrial development.
Innovation and Startup Ecosystem	Over 1.5 lakh DPIIT-recognized startups (2024)	Encourages innovation, technology adoption, and new business creation.

Source: Ministry of MSME, Government of India (Annual Report 2024–25); Ministry of Statistics and Programme Implementation (MOSPI); Department for Promotion of Industry and Internal Trade (DPIIT); Press Information Bureau (2024).

The table shows how entrepreneurship has significantly boosted India's economy, especially through the MSME sector. MSMEs played a crucial role in industrial development, accounting for 35.4% of manufacturing production and contributing 30.1% of India's GDP in 2022–2023. Additionally, the industry produced 45.73% of India's exports in 2023–2024, demonstrating its significance in boosting foreign exchange profits and competitiveness internationally. Additionally, by July 2024, MSMEs were the greatest source of non-agricultural employment, employing approximately 20.39 crore persons registered through the Udyam Registration and Udyam Assist platforms. With over 6.19 crore MSMEs registered and over 1.5 lakh startups recognized, the entrepreneurial environment is growing quickly thanks to government initiatives. When taken as a whole, these metrics show how entrepreneurship significantly boosts economic growth by creating jobs, raising industrial output, encouraging exports, stimulating innovation, and promoting balanced regional development.

6. Conclusion

This study examined the role of public policy initiatives in promoting sustainable entrepreneurship in India using secondary data for the period 2020–2025. The findings indicate that

major government initiatives, including Startup India, Udyam Registration, the revised MSME definition, RAMP, and the Udyam Assist Platform, have been accompanied by significant growth in startup recognition, MSME formalization, employment generation, and economic contribution. The analysis suggests that supportive policy measures, digital governance, and improved access to finance have strengthened India's entrepreneurial ecosystem and contributed to inclusive economic growth. MSMEs continue to play a vital role in employment, manufacturing, exports, and regional development, highlighting their importance in achieving sustainable economic development. However, as the study is based on descriptive secondary data, it establishes associations rather than causal relationships. Future research should employ firm-level data and advanced statistical techniques to examine the long-term impact of public policies on sustainable entrepreneurship. Overall, the findings suggest that continued policy support, innovation, and institutional strengthening will be essential for fostering a resilient and sustainable entrepreneurial ecosystem in India.

7. Policy Recommendations

Based on the findings, the following policy recommendations are proposed:

1. Strengthen digital formalization by further simplifying Udyam Registration and expanding outreach to informal enterprises.
2. Enhance access to finance through collateral-free credit, green financing, and dedicated funding for startups and MSMEs.
3. Promote innovation and technology adoption by strengthening incubation support, digital transformation, and research and development initiatives.
4. Encourage sustainable business practices by providing incentives for green technologies, resource efficiency, and environmentally responsible production.
5. Support inclusive entrepreneurship by expanding training, financial assistance, and market access for women, youth, rural entrepreneurs, and enterprises in Tier-2 and Tier-3 cities.
6. Establish a policy monitoring framework to regularly evaluate entrepreneurship programmes based on indicators such as business survival, employment generation, innovation, exports, and sustainability outcomes.

These measures will help strengthen India's entrepreneurial ecosystem and enhance the long-term contribution of MSMEs and startups to sustainable and inclusive economic growth.

References

1. Abbas, M. H., & Bulut, M. (2024). Navigating the landscape of sustainable entrepreneurship research: A systematic literature review. *Discover Sustainability, 5*(1), 171. https://doi.org/10.1007/s43621-024-00293-4
2. Audretsch, D. B., & Belitski, M. (2021). Towards an entrepreneurial ecosystem typology for regional economic development: The role of knowledge and institutions. *Small Business Economics, 56*(2), 1033–1051.
3. Autio, E., Nambisan, S., Thomas, L. D. W., & Wright, M. (2018). Digital affordances, spatial affordances, and the genesis of entrepreneurial ecosystems. *Strategic Entrepreneurship Journal, 12*(1), 72–95.
4. Brown, R., & Mason, C. (2017). Looking inside the spiky bits: A critical review and conceptualisation of entrepreneurial ecosystems. *Small Business Economics, 49*(1), 11–30.
5. Di Vaio, A., Hassan, R., Chhabra, M., Arrigo, E., & Palladino, R. (2022). Sustainable entrepreneurship impact and entrepreneurial venture life cycle: A systematic literature review. *Journal of Cleaner Production, 378*, 134469. https://doi.org/10.1016/j.jclepro.2022.134469
6. Ferreira, N. C. M. Q. F., & Ferreira, J. J. M. (2023). *Quo vadis sustainable entrepreneurship?* A systematic literature review of drivers and inhibitors in SMEs. *IEEE Transactions on Engineering Management*. https://doi.org/10.1109/TEM.2023.3305475
7. Gerlich, C., Kanbach, D. K., & Kraus, S. (2025). Sustainable corporate entrepreneurship as a catalyst for sustainability: A systematic literature review. *Business Strategy and the Environment*.

8. Kaushik, N., & Dangwal, R. C. (2025). Sustainable entrepreneurship: A systematic review and future research directions. *Abhigyan, 43*(1), 28–53. https://doi.org/10.1177/09702385241280810
9. Khokhawala, S. M., & Iyer, R. (2022). Sustainable entrepreneurship in India: A comparative case study of social, economic and environmental outcomes. *South Asian Journal of Business and Management Cases, 11*(1), 10–26. https://doi.org/10.1177/22779779221082766
10. Mendes, A. C. S., Ferreira, F. A. F., Kannan, D., Ferreira, N. C. M. Q. F., & Correia, R. J. C. (2022). A BWM approach to determinants of sustainable entrepreneurship in small and medium-sized enterprises. *Journal of Cleaner Production, 371*, 133300. https://doi.org/10.1016/j.jclepro.2022.133300
11. Nagaraj, M. A., Kumar, K., Venumuddala, V. R., & Bhuwania, A. (2025). Taming the beast versus nurturing the beast: Rethinking entrepreneurship policy. *IIMB Management Review, 37*(4), 100617. https://doi.org/10.1016/j.iimb.2025.100617
12. Rosário, A. T., Raimundo, R. J., & Cruz, S. P. (2022). Sustainable entrepreneurship: A literature review. *Sustainability, 14*(9), 5556. https://doi.org/10.3390/su14095556
13. Stam, E., & Van de Ven, A. (2021). Entrepreneurial ecosystem elements. *Small Business Economics, 56*(2), 809–832.
14. Xu, G., Hou, G., Zhang, J., & Peters, B. A. (2022). Digital sustainable entrepreneurship: A digital capability perspective through digital innovation orientation for social and environmental value creation. *Sustainability, 14*(18), 11222.
15. Zahra, S. A., & Wright, M. (2016). Understanding the social role of entrepreneurship. *Journal of Management Studies, 53*(4), 610–629