

ENTREPRENEURIAL STARTUPS: PATHWAYS TO SUSTAINABLE AND INCLUSIVE GROWTH

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Citation: Chauhan, A., & Bansal, D. (2025). ENTREPRENEURIAL STARTUPS: PATHWAYS TO SUSTAINABLE AND INCLUSIVE GROWTH. Journal of Modern Management & Entrepreneurship, 15(03), 152-158. <https://doi.org/10.62823/jmme/15.03.7987>

ABSTRACT

Startups are innovative ventures developing new products and services to solve the existing problems in various fields. From the past few decades, the focus of developmental policies worldwide is to give better lives to people and to make the planet more sustainable for future generations. The essential aim of sustainable development is to attain economic prosperity while caring for both society and the environment. Startups these days are applying new ideas, technologies and business models to solve the long-standing challenges related to sustainability and are addressing the problems related to inequality, resource depletion, wastage and climate change. Startups are rapidly growing in different sectors of Indian economy and the focus of present paper is to find out the role of these innovative startups in attaining sustainable and inclusive growth. The paper also elaborates, how technology is the major enabling factor for these startups to attain the sustainability goals.

Keywords: Startups, Innovative Technology, Inclusive, Sustainable Development.

Introduction

Entrepreneurship plays pivotal role in the holistic development of a nation. Productive enterprises channelize material and human resources, spur innovations, generate employment opportunities, thereby rejuvenate an economy. India is a young, energizing economy with significant demographic advantages. 62% of its total population is in the working age group of 15-59 years and more than 54% of the total population is below 25 years of age (National Policy for Skill Development and Entrepreneurship, 2015). While world population is ageing, India will get benefit of demographic dividend till 2047. This is the time for India to develop and flourish as a world power. Considering it, government is making all efforts to ignite and support young minds and focusing on education and skill enhancement to develop them as innovative entrepreneurs and job providers, contributing to the overall development of the nation.

Startup India scheme is a prominent initiative in this direction. Startups are innovation-based enterprises, that use the technology, reallocate resources towards growth and development, reduce economic disparities, enhance potentials of different sectors of the economy hence, contributes to meet the sustainable development goals. Startups now a days are applying new ideas, technologies and

business models to solve long-standing challenges related to sustainability. If a nation wants to compete in world markets, then there is a need of more startup establishments.

From past few decades the developmental policies and initiatives are more focused on environment and society, to make the world more sustainable for future generations. The 2030 agenda of 17 Sustainable Development Goals laid down by United Nations in the year 2015 with 169 targets are broader in scope and cover the three major dimensions i.e. economic growth, social inclusion and environmental protection. These goals emphasize that strategies for economic growth must address a range of social needs including education, health, social protection, employment, eradicating poverty and hunger, promote industry, innovation and infrastructure, while tackling climate change and environmental protection.

Innovative startups and technology are revolutionizing the ways of approaching sustainability. Through the use of renewable energy, precision agriculture, waste reduction technologies, sustainable manufacturing, and digital platforms, these startups are paving the way toward a more sustainable and inclusive future. Enginsoy (2023) defines that a startup is a business that uses an innovative technology-enabled solution which has the potential to attain scalability. The collaboration between innovation, entrepreneurship, and technology is essential to create long-term solutions for sustainable development, and the role of startups will be crucial in achieving the global sustainability goals.

The word Startup, originated in United States in the year the 1970s and got popularized in 1990s due to hype in internet and technology. But in India, evolution of startups could be traced after the establishment of the IT companies like Infosys, TCS, and Wipro in 1980s which revolutionized the IT service sector of India and supported the startups in this sector. In the year 1991, the government introduced economic reforms, and introduction of new economic policy could be considered as a take-off period for domestic Indian businesses. After the relaxation of some restricted laws, more number of small businesses entered the market and started flourishing. Another turning point in the Indian economy was the establishment of Bharti Airtel company which democratized entrepreneurial ventures in India and fueled the growth and formation of new private companies during the year 2000 (Grant Thornton, 2022). The startup ecosystem of the country started growing during the period of great economic recession, gradually with the origin of the startups namely Flipkart, Oyo, and Ola in 2008. But after the implementation of startup India scheme, startups grew extensively in the Indian economy. In the course of time period 2013 to 2018, 7200-7700 tech startups originated in the Indian economy, with a growth rate of 12-15 percent (Korreck, 2019). According to a report by Harish et al. (2016), India had the third largest startup base with 10,000 startups after China and the USA in the year 2016. After the launch of the Startup India scheme in 2016, the number of startups grew exponentially in the Indian economy. Up to year 2018 there were 14,600 government recognized startups which were working in 479 districts, in all the states and union territories (Government of India, 2018).

The Government of India has launched several initiatives to foster innovation, entrepreneurship, and research and development (R&D) across various sectors. These initiatives in the form of providing financial, infrastructure, and policy support aim to create an enabling ecosystem for startups and innovators. The economic development initiatives, policies and programmes of the government have led to the rapid growth of startups in the country. In this paper role of different types of startups in attaining sustainable development is elaborated. The paper also focused on finding the role of technology in supporting these startups to attain their goals of sustainable and inclusive growth.

Sector-Wise Growth of Indian Startups

India has emerged as one of the world's fastest-growing startup ecosystems, with a thriving entrepreneurial landscape across multiple sectors. Innovative startups are flourishing across agriculture, manufacturing and service sectors of the economy that are contributing to sustainable development.

Agricultural startups are utilizing innovative solutions to address issues like resource depletion, environmental degradation, food security, and climate change. Industrial startups are driving transformative changes in manufacturing and industrial operations. Service sector startups provide specialized services in the fields of marketing, finance, healthcare, education, transportation and entertainment. They provide digital platforms, software solutions, specialized, personalized, accessible and affordable service.

The startup ecosystem in India is diverse, with companies emerging in sectors ranging from technology and consumer services to education and agriculture. Startups are rapidly expanding in numbers and in valuation. Startups with the valuation of more than \$1 billion are termed as Unicorns and those who are very close to achieve this value are known as Soonicorns. Table 1 shows the sector-wise growth of Indian startups in terms of total numbers, unicorn and soonicorn startups.

Table 1: Sector-Wise Spread of Indian Tech Startups (2014-2020)

Sr. No.	Sectors	Number of Startups in 2021	Number of Unicorns (2014-2020)	Number of Soonicorns (2014-20)
1	Enterprise Tech	6987 (18)	8 (15.7)	4 (7.8)
2	E-Commerce	465 (12.1)	11 (21.6)	6 (11.7)
3	FinTech	4270 (11)	10 (19.6)	16 (31.4)
4	Consumer Services	4270 (11)	6 (11.7)	7 (13.7)
5	HealthTech	3882 (10)	2 (3.9)	5 (9.8)
6	Media & Entertainment	3105 (8)	--	--
7	DeepTech	3105 (8)	--	--
8	EduTech	2717 (7)	2 (3.9)	2 (3.9)
9	Transport Tech	1164 (2.9)	---	---
10	AgriTech	1000 (2.6)	--	1 (2)
11	Others	3657 (9.4)	12 (23.5)	10 (19.6)
	Total	38,815 (100)	51 (100)	51 (100)

Source: Mandal (2021)

Note: Figures in the parentheses represent percentage

Table 1 elaborates top ten startups in different sectors of Indian economy with Enterprise Tech, E-Commerce, Fintech, Consumer Services and Health Tech leading the way. E-commerce and Fintech sectors are leading in terms of unicorns also. In Fintech sector, number of soonicorns is highest. Edutech sector is on eighth place but is growing rapidly with increasing numbers of unicorns and soonicorns. Therefore, the future of startups seems bright and prosperous.

Role of Startups in attaining Sustainable and Inclusive Development

Innovative startups are addressing the challenges of climate change, resource depletion, wastage, and inequality by creating new products and services across various sectors of the economy, therefore, play a crucial role in driving sustainable and inclusive growth. The role of startups in top ten sectors is given in detail. Technologies used by these startups, working models and types of products and services developed are elaborated in the following section.

• Role of Enterprise Tech Startups

Enterprise Tech startups are becoming vital players in driving digital transformation and modernizing business operations thereby supporting business enterprises. These startups provide pioneering technologies such as artificial intelligence, blockchain, cloud computing, Internet of Things (IoT), and data analytics to help enterprises stay competitive, modernize operations, and enhance customer experiences. These startups are using machine learning models to predict future trends, customer demand, and potential risks, enabling businesses to be more proactive and make better strategic decisions. They also provide cybersecurity solutions to protect sensitive data and digital assets. India has a rapidly growing enterprise tech startup ecosystem, with companies offering innovative solutions across cloud computing, AI, SaaS, and cybersecurity. Here are some notable ones: **Freshworks** – A customer engagement and IT service management platform offering solutions like Freshdesk, Freshsales, and Freshservice. **Postman** – An API development and testing platform used by developers worldwide for building, testing, and managing APIs. **Druva** – A cloud data protection and management startup offering backup, disaster recovery, and security solutions. **Chargebee** – A subscription billing and revenue management platform for SaaS and other subscription-based businesses. **HighRadius** – A fintech startup providing AI-driven order-to-cash and treasury management solutions for enterprises. **RazorpayX** – A fintech and enterprise banking solution offering business payments, payroll, and vendor payouts.

- **Role of E-Commerce Startups**

E-commerce startups are thriving by identifying gaps in traditional retail markets, embracing technology, and fulfilling consumer demand for convenience, personalization, and choice. They use digital platforms, cutting edge technologies and creative marketing strategies. These startups are working in B2B, B2C and C2C models. Direct to customer startups sell their products directly to customers without intermediaries, reducing costs, ensuring transparency and customer satisfaction. B2C startups connect buyers and sellers. Niche product startups offer tailored products whereas, SaaS e-commerce startups provide software services for business expansion. Examples of some successful e-commerce startups include **Meesho** – A social commerce platform enabling small businesses and individuals to sell products via social media. **Nykaa** – A beauty and wellness e-commerce platform that offers a wide range of cosmetics, skincare, and personal care products. **Flipkart** – One of India's largest e-commerce marketplaces, offering products across various categories, **Myntra** – A fashion and lifestyle e-commerce platform specializing in apparel, footwear, and accessories. **Lenskart** – A direct-to-consumer eyewear startup offering prescription glasses, sunglasses, and contact lenses online.

- **Role of Fintech Startups**

Fintech startups are providing sustainable financial solutions to the businesses and the public. They use new technologies to improve automation and efficiency in the financial services. Innovative fintech startups are introducing new models, therefore, most of the financial institutions are using fintech solutions to keep them more relevant and competitive by accepting technology backed tools like artificial intelligence, big data and block chain. It improves the financial investment strategies and the customer satisfaction. Here are some major fintech startups: **Razorpay**– A payment gateway solution that enables businesses to accept, process, and disburse payments, offering services like payment links, subscription billing, and payroll solutions. **Paytm** – A digital payments platform that provides services like mobile recharges, bill payments, online shopping, and financial products, including insurance and loans. **PhonePe**– A UPI-based digital payments platform that allows users to make instant payments, transfer money, pay bills, and invest in financial products through its app. **PolicyBazaar**– An online insurance aggregator that helps users compare and buy insurance policies, providing a transparent and easy way to access life, health, and auto insurance. **Groww**– A mutual fund investment platform that allows users to invest in a wide range of funds, stocks, and ETFs with an easy-to-use interface and low fees. **MobiKwik**– A mobile wallet and payment solution that allows users to recharge, pay bills, transfer money, and make online purchases, with features like instant loan disbursements. **Pine Labs**– A leading provider of point-of-sale (POS) systems, offering financing solutions for merchants, including Buy Now Pay Later (BNPL) options, and payments processing services. **Zerodha**– A stock brokerage platform that offers low-cost trading, helping users invest in stocks, mutual funds, and other securities. **Cashfree**– A payments and banking solutions provider offering services like instant payouts, API integrations for payments, and online payment processing for businesses.

- **Role of Consumer Services Startups**

Customer service startups are focused on providing improved customer services in an efficient, cost effective, quick and seamless way. They provide innovative solutions that enhance the way businesses interact with their customers, aiming to improve customer satisfaction, reduce response times, and optimize the overall customer experience. Through AI-driven chatbots, omnichannel support, self-service tools, or customer feedback platforms, these startups are playing a critical role in modernizing customer service practices across industries. **Swiggy** – A leading food delivery platform that connects users with restaurants and cloud kitchens for quick doorstep delivery. **Zomato** – A food tech company providing online food delivery, restaurant discovery, and cloud kitchen services. **Ola** – A ride-hailing and mobility service offering cabs, auto-rickshaws, and bike rentals across India. **Dunzo** – A hyperlocal delivery platform that enables users to get groceries, medicines, and essentials delivered on demand. **Urban Company** – A home services startup offering beauty, cleaning, repairs, and wellness services at customers' doorsteps. **Blinkit** – A quick commerce platform specializing in instant grocery and essentials delivery. **NoBroker** – A real estate startup that helps users buy, sell, or rent properties without brokers, reducing middlemen costs. **Rapido** – A bike taxi and auto-rickshaw aggregator that offers affordable and fast last-mile transportation. **BigBasket** – An online grocery delivery platform offering fresh produce, household essentials, and kitchen staples. **Pepperfry** – A furniture and home decor marketplace providing an extensive range of home furnishing solutions.

- **Role of Health Tech Startups**

Health tech startups play a pivotal role in transforming healthcare by using technology to improve patient outcomes, reduce costs, and enhance the efficiency of healthcare delivery. These startups focus on solving critical challenges in the healthcare system, such as limited care, inefficiencies, and outdated technologies, by introducing innovations like digital health solutions, telemedicine, wearable devices, and electronic health records (EHR) systems. Healthtech startups are using innovative techniques to provide sustainable healthcare delivery at low costs, improving patient care and increasing access to health care. Some of the examples include: **PharmEasy** – An online pharmacy and teleconsultation platform that delivers medicines, diagnostic tests, and healthcare products. **Practo** – A digital healthcare platform offering online doctor consultations, appointment booking, and health record management. **Cultfit**– A holistic health and fitness platform providing online and offline fitness training, mental wellness, and nutrition services. **1mg** – An online healthcare platform offering medicines, lab tests, and doctor consultations with verified information about drugs and treatments. **MediBuddy** – A digital healthcare platform providing telemedicine, lab tests, hospitalization support, and health insurance services. **HealthifyMe** – A fitness and nutrition app offering AI-powered diet plans, calorie tracking, and virtual coaching.

- **Role of Media and Entertainment Startups**

These startups include the production and distribution of different forms of media content like movies, music, games, virtual reality, content creation, video editing etc. and are at the forefront of transforming the entertainment landscape. These startups are challenging traditional media and entertainment models by providing unique, personalized, and interactive experiences for audiences. India's media and entertainment startup ecosystem is booming, with innovative platforms offering content, streaming, gaming, and digital experiences. Here are some notable startups: **Jio Hotstar** – A leading video streaming platform offering movies, TV shows, live sports, and original content. **MX Player**–A digital entertainment platform providing free streaming of web series, movies, and short-form videos. **ALTBalaji** – A subscription-based video-on-demand platform featuring original Indian web series and regional content. **TVF (The Viral Fever)** – A digital entertainment company creating original web series and comedy content targeted at young audiences. **Pocket FM**– An audio entertainment startup offering audiobooks, podcasts, and radio shows in multiple Indian languages. **JioSaavn**– A music streaming service with a vast collection of Bollywood, regional, and international songs. **Gaana** – A popular music streaming platform offering millions of songs in various Indian languages. **Chingari** – A short-video entertainment app providing regional content and monetization opportunities for creators. **WinZO** – A mobile gaming platform offering real-money and casual games in multiple languages. **Loco** – A game streaming and e-sports platform enabling gamers to stream, compete, and engage with audiences.

- **Role of Deep tech startups**

These startups tend to work in highly specialized, technical fields and often address complex challenges in industries. Deep tech ventures generally have a longer development cycle, require significant capital investment, and may take years to bring their solutions to market. However, their potential to disrupt industries and create new markets is substantial. From artificial intelligence, quantum computing and robotics to clean energy and biotech, these startups are pushing the boundaries of what is possible, aiming to transform industries and improve lives. Here are some notable Deep tech startups: **AgniKul Cosmos** – A space tech startup developing customizable small satellite launch vehicles for cost-effective space access. **Pixxel** – A satellite imaging startup building a constellation of hyperspectral satellites for advanced Earth monitoring. **GreyOrange** – A robotics and AI company creating autonomous warehouse automation and supply chain solutions. **Log9 Materials**– A nanotechnology based startup developing graphene-based innovations for EV batteries, water purification, and energy storage. **Niramai** – A health tech startup using AI-powered thermal imaging for early-stage breast cancer detection. **Qure.ai** – A medical AI company offering deep-learning solutions for automated radiology and medical imaging analysis. **Uniphore** – A conversational AI and voice recognition startup enhancing customer interactions through speech analytics and automation. **Strand Life Sciences**– A genomics and precision medicine startup using AI and bioinformatics for advanced healthcare solutions. **Chakr Innovation**– A cleantech startup working on air pollution control solutions, including emission-reducing technologies for industries.

- **Role of Educational Startups**

Indian educational startups are mainly app-based that provide massive outreach and personalization of education. These startups use innovative educational technology namely software, social media and audio and video technology. Edutech startups are improving the teaching learning process, quality and accessibility of education and learning environment in the Indian economy. Here are some notable educational startups: **BYJU'S** – One of the largest edutech platforms offering interactive video-based learning programs for school students and competitive exams. **Unacademy** – An online learning platform providing live classes and courses for competitive exams, skill development, and higher education. **Vedantu**– A live tutoring platform that offers interactive online classes for school students and competitive exam aspirants. **upGrad** – A higher education startup offering online degree programs, certifications, and executive courses in collaboration with universities. **Physics Wallah** – A budget-friendly edutech platform specializing in online courses and study materials for JEE, NEET, and other competitive exams. **Toppr**– A personalized learning app that provides AI-driven adaptive learning and practice tests for students. **Khan Academy**- A free educational platform providing video tutorials and practice exercises across a wide range of subjects for students of all ages. These startups are improving the productivity and efficiency among the Indian as well foreign students and are fulfilling their aspirations of a bright future. In this way, EduTech startups are proving boon for the Indian educational sector.

- **Role of Transport Tech Startups**

Transport tech startups are revolutionizing the transportation and logistics industries by integrating cutting-edge technologies like artificial intelligence (AI), autonomous vehicles, electric mobility to improve efficiency, reduce emissions, and create more sustainable and user-friendly transportation solutions. Transport tech startups are revolutionizing how people and goods move, bringing forth innovations that address pressing challenges in transportation, from sustainability and congestion to efficiency and convenience. As cities and industries continue to embrace new ways of moving people and products, transport tech startups will play a critical role in defining the next generation of transportation systems. Here are some notable startups in this space: **Ola** – A leading ride-hailing platform offering cabs, auto-rickshaws, bike taxis, and EV services across India. **Rapido** – A bike taxi and auto-rickshaw aggregator providing affordable and quick last-mile transportation. **Bounce**– A dockless scooter rental startup enabling users to rent and drop off two-wheelers at different locations. **Yulu**– A micro-mobility startup offering electric bikes for short-distance, eco-friendly urban travel. **Vogo**– A scooter-sharing platform that allows users to rent two-wheelers for self-drive, reducing congestion. **Chalo**– A bus transport tech startup providing real-time tracking, digital ticketing, and route planning for public transport. **Porter** – A logistics and intra city trucking startup that connects businesses with mini trucks for on-demand goods transportation. **Blusmart** – An all-electric ride-hailing service focusing on sustainable and clean mobility solutions. **Shiprocket** – A logistics tech startup optimizing e-commerce shipping with AI-driven courier aggregation and last-mile delivery solutions. These startups are reshaping India's transportation landscape by enhancing efficiency, affordability, and sustainability in mobility and logistics.

- **Role of Agricultural Startups**

Agri-tech startups provide innovative solutions to the problems faced by the farmers and improve agricultural sustainability. They mainly work in the fields of supply chain, infrastructural development, finance, farm data and analytics, and information dissemination. Supply chain startups mainly work in three models i.e. E-Distributor, Listing Platforms, and Marketplace. Startups in these sectors work in crop procurement, effective storage, direct connectivity to the customers and better market linkages. Infrastructural startups include innovative growing systems and components like Aquaponics and develop drip irrigation models. It helps in growing environment friendly, nutrient rich and pesticides free crops with implementation of scientific technique. Farm Data and Analytics includes integrated platforms like remote sensing software, farm mapping, farm management and field operations using AI and machine learning which improve yields, optimize production and improve resilience. Information dissemination startups work for farmers to source information on weather, soil and crops. Here are some notable agricultural startups: **Ninjacart** – A B2B agritech platform that connects farmers directly with retailers, reducing middlemen and food wastage. **DeHaat** – A full-stack agritech startup providing farmers with seeds, fertilizers, advisory services, and market linkages. **AgroStar** – A digital farming platform offering agri-inputs, expert advice, and real-time solutions via a mobile app. **CropIn** – An

AI-driven agri-intelligence platform helping farmers and businesses with data-driven farming insights. **WayCool** – A supply chain startup streamlining the distribution of fresh produce and agricultural products. **Bijak** – A B2B marketplace that facilitates smooth transactions between farmers, traders, and buyers with credit access. **Stellapps** – A dairy-tech startup offering IoT-based solutions to improve milk production, quality, and supply chain efficiency. **FarmERP** – A smart agriculture management platform providing farm analytics, traceability, and resource planning. **Fasal** – An AI-powered precision farming startup that provides real-time crop monitoring and weather-based insights. **Aquaconnect** – A technology-driven aquaculture platform assisting fish and shrimp farmers with data-driven farming techniques. These startups are transforming Indian agriculture.

Summary and Conclusions

Startups are engine of economic growth, promoting innovations, generating income and employment, reducing economic inequalities, and leading to sustainable development of the country. Startups are driving technological innovations and advancements in the fields of artificial intelligence, machine learning, cloud computing, IOT, robotics, data analytics etc. Inclusive business models are developed that, provide affordable products and services to low-income populations, like affordable healthcare, finance, education and renewable energy access. The startup ecosystem in India is diverse and dynamic, with growth happening across various sectors where enterprise tech, e-commerce, fintech, healthcare, education etc. are leading the way, fueled by innovations and government support. Thus, innovative startups and technology are revolutionizing the ways of approaching sustainability. With more focus on innovations, digitization and accessibility, the future of Indian startups looks bright as they continue to address local challenges while making a global impact. As technology continues to evolve, these startups are expected to play an even larger role in shaping the future of agriculture, manufacturing and services sectors of the economy along with attaining sustainable and inclusive development.

References

1. Enginsoy S. (2023), *The Impact of Startups on National and Local Economies*, Startup Blink, Paris.
2. Government of India (2018). *States' Startup Ranking 2018*. Department for promotion of Industry and Internal Trade. Ministry of Commerce and Industry, Government of India. pp.16. Available at: https://www.startupindia.gov.in/content/dam/invest-india/compendium/Startup%20India%20-%20National%20report_Final%20Version_web.pdf
3. Grant Thornton (2022) *The Indian Entrepreneurial Odyssey: Democratisation of the start-up ecosystem in Bharat*, Grant Thornton Bharat, New Delhi.
4. Harish, H.V., Mehra, P., Gandhi, K., Gupta, A., Kumar, D., Bhansali, S., Diyaabala, N., Kothari, M. (2016). *Startups India-An Overview*, Grant Thornton, ASSOCHAM, New Delhi. pp.12. Available at: https://www.grantthornton.in/globalassets/1.-member-firms/india/assets/pdfs/grant_thornton-startups_report.pdf
5. Korreck, S. (2019). *The Indian Startup Ecosystem: Drivers, Challenges and Pillars of Support*. Observer Research Foundation, ORF Occasional Paper No. 210.
6. Mandal S. (2021) *The State of Indian Startup Ecosystem Report 2021*, Inc42 Media, New Delhi.
7. National Policy for Skill Development and Entrepreneurship (2015), Ministry of Skill Development and Entrepreneurship, New Delhi.

