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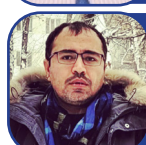
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INDIA'S EXPERIENCE IN ENHANCING PUBLIC WELFARE THROUGH THE DEVELOPMENT OF ENTREPRENEURIAL ACTIVITY

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Abstract: The article analyzes India's experience in improving the well-being of the population through the development of entrepreneurship. Digital transformation, support for SMEs, startup ecosystem, investment in human capital and rural entrepreneurship are highlighted as key factors serving inclusive economic growth.

Key words: India, entrepreneurship, inclusive growth, SMEs, Digital India, Startup India, human capital, rural entrepreneurship, digital transformation.

Annotatsiya: Maqolada Hindistonning tadbirkorlikni rivojlantirish orqali aholi farovonligini oshirish tajribasi tahlil qilinadi. Raqamli transformatsiya, KO'zni qo'llab-quvvatlash, startaplar ekotizimi, inson kapitaliga sarmoya va qishloq tadbirkorligi inklyuziv iqtisodiy o'sishga xizmat qiluvchi asosiy omillar sifatida yoritilgan.

Kalit so'zlar: Hindiston, tadbirkorlik, inklyuziv o'sish, KO'B, Digital India, Startup India, inson kapitali, qishloq tadbirkorligi, raqamli transformatsiya.

Аннотация: В статье анализируется опыт Индии в повышении благосостояния населения посредством развития предпринимательства. Цифровая трансформация, поддержка МСП, стартап-экосистема, инвестиции в человеческий капитал и сельское предпринимательство выделены как ключевые факторы, способствующие инклюзивному экономическому росту.

Ключевые слова: Индия, предпринимательство, инклюзивный рост, МСП, Цифровая Индия, Стартап-Индия, человеческий капитал, сельское предпринимательство, цифровая трансформация.

INTRODUCTION

The experience of India plays a highly significant role in improving public welfare through the development of entrepreneurial activities. This country has placed strong emphasis on expanding entrepreneurship as a key driver of economic growth and social stability.

The reason for selecting India as the object of our research lies in its population, which exceeds 1.4 billion people [1, 23]. Ensuring and enhancing the welfare of such a large population presents unique complexities and requires effective socio-economic governance. Therefore, analyzing the country's experience from a theoretical perspective is both reasonable and relevant.

Our analysis confirms that India recognizes the crucial role of entrepreneurship in improving public welfare. Comprehensive strategies aimed at developing small business and entrepreneurial activity are actively implemented across the country.

It should be noted that India pursues an inclusive approach to enhancing public welfare through entrepreneurship, with particular attention given to small and medium-sized enterprises (SMEs) and digital transformation. Digital transformation has become a decisive factor in expanding entrepreneurial participation. Within the framework of "Digital India," systems such as e-government, online payments, and digital identification (Aadhaar) have been introduced. Their significance is reflected in the following outcomes:

- entrepreneurs save time and reduce costs through access to online services;
- citizens, especially rural entrepreneurs, can enter domestic and international markets via e-commerce platforms;
- the digital financial system (UPI, mobile banking services) has created new opportunities for micro-businesses.

These developments have stimulated the growth of entrepreneurship not only in urban areas but also in remote regions.

Thus, India places strong emphasis on inclusive growth and the development of small business and entrepreneurship. The essence of India's inclusive approach lies in ensuring that all segments of the population — particularly low-income groups, rural communities, women, and socially vulnerable categories — benefit from national economic growth. This approach focuses not merely on increasing GDP, but on ensuring that this growth is widespread and equitable. In other words, inclusivity in the Indian context means that the development of entrepreneurship and its benefits are felt not only by specific groups or regions, but by people across the entire country, regardless of their socio-economic status. This ensures fair access to the fruits of economic development and contributes to reducing poverty and inequality.

REVIEW OF LITERATURE ON THE SUBJECT

The development of entrepreneurial activity as a driver of public welfare in India has been examined extensively across contemporary research, revealing a multidimensional relationship between enterprise growth, inclusive development and national economic transformation. Daramola and Gupta (2020) emphasize that emerging economies, particularly India, rely on entrepreneurship development frameworks to stimulate job creation, reduce poverty and enable structural economic change. Their case-based analysis highlights how institutional reforms, enterprise support programs and innovation-oriented policies have strengthened India's entrepreneurial ecosystem, resulting in wider social benefits such as increased employment and local market expansion.

Sharma (2018) provides an in-depth analysis of India's small business and MSME sector, noting its central role in income generation, regional industrialization and grassroots economic empowerment. His findings show that MSMEs contribute significantly to public welfare by offering livelihood opportunities to low-income households and marginalized groups. However, he also identifies persistent challenges such as limited access to finance, inadequate technological capacity and regulatory barriers, suggesting that addressing these constraints is essential for maximizing welfare outcomes.

Singh (2019) focuses on India's evolving start-up ecosystem, explaining how government initiatives, venture capital expansion and innovation support structures have accelerated entrepreneurial growth. He argues that programs such as Start-up India not only encourage enterprise creation but also indirectly enhance social welfare through the generation of high-skilled employment, diffusion of digital services and increased competitiveness across sectors. Patel (2019) further elaborates on this, demonstrating that the Start-up India initiative has improved early-stage entrepreneurial activity by offering tax incentives, simplified procedures and incubation support, thereby contributing to broader socio-economic progress.

Digital transformation has been another major catalyst for welfare-oriented entrepreneurial development. Rey (2021) highlights how digitalization has reshaped India's economic landscape by improving service delivery, expanding opportunities for small firms and creating more inclusive growth pathways. Bhattacharya (2022) empirically confirms that the Digital India programme has significantly increased the productivity and survival rates of small businesses by facilitating digital payments, e-commerce integration and online market access, ultimately contributing to household income growth and poverty reduction.

Manufacturing-led entrepreneurial expansion has also played a crucial role in welfare improvement. Kumar (2020) shows that the Make in India programme has stimulated industrial growth through investment promotion, regulatory reforms and domestic production incentives. His results indicate that the programme has augmented manufacturing employment and supported local value chains, creating multiplier effects on household incomes and regional development. Complementing this perspective, Gupta (2020) examines Skill India as a workforce development intervention and finds that enhancing vocational skills has a direct influence on employability, productivity and socio-economic mobility, thereby strengthening the welfare impacts of entrepreneurship-driven growth.

Financial inclusion policies have further reinforced the welfare outcomes of entrepreneurial development. Rao (2021) demonstrates that the Pradhan Mantri Jan Dhan Yojana (PMJDY) has expanded access to banking services, credit and savings mechanisms for millions of low-income citizens. By integrating previously unbanked populations into formal financial systems, PMJDY has enabled micro-entrepreneurial activity, improved household resilience and reduced vulnerability to income shocks. This financial foundation strengthens the

capacity of small entrepreneurs to participate in economic activities and benefit from government support schemes.

Taken together, these studies illustrate that India's experience shows a strong and interconnected relationship between entrepreneurship development and public welfare enhancement. Modern policy initiatives such as Start-up India, Skill India, Digital India, Make in India and PMJDY collectively contribute to building a more inclusive, innovative and welfare-oriented economic system. The literature consistently highlights that entrepreneurial expansion generates employment, promotes social inclusion, strengthens regional development and broadens economic opportunities, thereby positioning entrepreneurship as a central mechanism for improving public welfare in India.

RESEARCH METHODOLOGY

The study employs a mixed-method approach based on the collection of secondary data from official Indian government reports, international development databases, and peer-reviewed publications, complemented by qualitative insights from policy documents on entrepreneurial programmes. The data are analyzed through comparative assessment, trend evaluation, and thematic content analysis to identify how entrepreneurship initiatives contribute to public welfare outcomes in India.

ANALYSIS AND RESULTS

Entrepreneurial development is linked not only to financial support but also to investment in human capital. India has implemented several programs in this area, including:

- Skill India — training in professions with high labor-market demand;
- Atal Innovation Mission — promoting a culture of innovation at school and university levels;
- Women Entrepreneurship Programme — supporting female entrepreneurship.

As a result, economic activity among the population increased, and the number of start-ups and small businesses expanded on the basis of newly acquired knowledge and skills.

A large portion of India's population resides in rural areas; therefore, agribusiness and rural entrepreneurship are supported as separate strategic directions. These efforts include:

- the activities of rural cooperatives and microcredit institutions;
- "Self-Help Groups (SHGs)" that promote entrepreneurship among rural women;
- support for AgriTech start-ups;
- connecting farmers to digital marketplaces (e-NAM).

These initiatives have helped create stable income sources for rural communities.

However, India remains a country with uneven economic development, and traditional mechanisms of social support are still practiced to help people rise from slum conditions¹. For example, individuals from low-income groups receive assistance from wealthy patrons—such as philanthropists and major business magnates—only when they demonstrate their abilities (to study or to work). This customary approach has allowed countless Indians to escape poverty and acquire professional skills.

Thus, in the democratic system of the Republic of India, entrepreneurship contributes to improving welfare in the following ways:

First, since 2014, the "Make in India" initiative has aimed to transform India into a global manufacturing hub. This initiative significantly improved the country's investment climate. Favorable conditions were created for both domestic and foreign investors, and bureaucratic barriers were reduced. Industrial development has increased the share of manufacturing in GDP and created new jobs. Infrastructure development led to the construction of industrial corridors, logistics centers, and other essential facilities. Foreign investments were attracted to strategic sectors such as defense, railways, and electronic manufacturing.

Additionally, the "Start-up India" initiative, launched in 2016, was designed to support innovative start-ups. One of its central components was financial incentives, including tax benefits, grants, and improved access to venture capital. "Start-up India" simplified the registration process, making it faster and more accessible for new enterprises. Through incubation and mentorship programs, entrepreneurs received support in business development, advisory services, and networking opportunities. The initiative also strengthened support for innovation and research activities, encouraging collaboration with universities and scientific institutions (Table 1).

1 Vershina I.A. Urbanizatsiya v indii: sotsiologicheskij analiz // <https://cyberleninka.ru/article/n/urbanizatsiya-v-indii-sotsiologicheskij-analiz>

Table 1. Description of Measures Aimed at Improving Public Welfare in India²

Implementation of Priority Measures	Results
Creating an entrepreneurial ecosystem through the “Startup India” and “Make in India” initiatives	The <i>Make in India</i> program is aimed at promoting domestic production, creating jobs, reducing dependence on imports, stimulating economic growth, and attracting investment in India. It encourages entrepreneurs to engage in local manufacturing, which in turn increases orders and opportunities for small and medium-sized enterprises.
	The <i>Startup India</i> initiative is designed to support new start-ups, foster innovation, and create a favorable environment for them. It provides tax incentives, simplifies regulatory compliance (for example, by reducing inspections), strengthens intellectual property protection, and ensures access to financing (such as through the <i>Fund of Funds for Startups</i>). This contributes to job creation and diversifies the economy.
Support for micro, small, and medium-sized enterprises (MSMEs)	Under the <i>Pradhan Mantri Mudra Yojana</i> program, unsecured loans are provided to small entrepreneurs, particularly low-income individuals who remain outside the formal financial system. This enables millions of people to start or expand their businesses, leading to increased incomes and a reduction in poverty.
	<i>Skill India</i> is an initiative aimed at improving the qualifications of youth and unemployed individuals in high-demand professions. It not only prepares them for employment but also equips them with the necessary skills to establish their own businesses.
Digital inclusion and the “Digital India” initiative	The <i>Digital India</i> program focuses on developing digital infrastructure, expanding online public services, and increasing digital literacy. It creates new opportunities for small entrepreneurs, such as using online payments, selling products through e-commerce platforms, and submitting electronic applications for loans.
	Financial inclusion under <i>Pradhan Mantri Jan Dhan Yojana</i> allowed a significant share of the population to open bank accounts. This increased access to financial services and made it easier to obtain funding necessary for starting or expanding entrepreneurial activities.

Secondly, the government has consistently prioritized support for micro, small, and medium-sized enterprises (MSMEs). In particular, the Small Industries Development Organization (SIDO) was established in 1954, later renamed the Micro, Small and Medium Enterprises Development Organisation (MSMEDO), serving as a central authority responsible for ensuring the structured and consistent growth of the private sector.

Given that small business and entrepreneurship constitute major drivers of the Indian economy, financial support mechanisms such as concessional loans, subsidies, and guarantees were provided through banks. Based on MSMEDO activities, the production and service capacities of MSMEs expanded. As a result, new markets and cooperation networks were formed for small enterprises. Furthermore, to ensure availability of qualified labor, efforts were made to train specialists tailored to the needs of small businesses.

Based on the above analysis, it can be stated that India’s experience carries significant practical value for developing countries. The Indian model offers the following lessons:

1. Inclusive economic growth — development must benefit all population groups.
2. Active government support — a supportive legal and financial environment is essential for promoting start-ups, MSMEs, and innovation.
3. Digital infrastructure — constitutes the foundation of the 21st-century economy.
4. Human capital — serves as a critical foundation for entrepreneurship development.
5. Rural entrepreneurship — plays a decisive role in ensuring overall welfare.

CONCLUSIONS AND SUGGESTIONS

In conclusion, India’s experience clearly demonstrates that entrepreneurship development is one of the most effective tools for enhancing public welfare. Inclusive economic policies, digital transformation, support for start-ups, creation of a favorable environment for MSMEs, investment in human capital, and attention to rural

² The author’s work is based on various sources. Sources: <https://www.rbi.org.in/> — Reserve Bank of India (RBI): Reports on financial inclusion and microfinance. <https://www.indiabudget.gov.in/economicsurvey/> — Economic Survey (published by the Ministry of Finance of India): Annual analysis of India’s economy containing information on entrepreneurship, job creation, and welfare. <https://www.commerce.gov.in/> — Ministry of Commerce & Industry, Government of India: Official information on the Startup India and Make in India initiatives. https://dcmsme.gov.in/about_us.aspx — Ministry of Micro, Small & Medium Enterprises (MSME): Information on support programs for the MSME sector. <https://www.rbi.org.in/> <https://niti.gov.in/> — NITI Aayog (National Institution for Transforming India): The government’s primary policy think-tank, publishing extensive research and reports on economic growth and social development in India.

entrepreneurship collectively contribute to reducing poverty and inequality while sustaining economic growth. India's experience highlights the following as key drivers of improved welfare:

- the existence of a long-term government strategy;
- legal and financial mechanisms that stimulate entrepreneurship;
- investments in digital infrastructure and human capital;
- strong focus on developing an innovation and start-up ecosystem.

By following this model, any country — including Uzbekistan — can expand opportunities to ensure socio-economic stability, create new jobs, and increase household incomes through entrepreneurship.

List of used literature:

1. Government of India. (2014). Make in India Initiative: Policy Framework and Guidelines. Ministry of Commerce & Industry.
2. Government of India. (2016). Start-up India Action Plan. Department for Promotion of Industry and Internal Trade (DPIIT).
3. Ministry of Micro, Small and Medium Enterprises (MSME). (2020). MSME Annual Report. Government of India.
4. Government of India. (2015). Digital India Programme Guidelines. Ministry of Electronics and IT (MeitY).
5. Reserve Bank of India. (2015). Pradhan Mantri Mudra Yojana (PMMY) Guidelines.
6. Government of India. (2014). Pradhan Mantri Jan Dhan Yojana (PMJDY): National Mission on Financial Inclusion.
7. Дарамола, А., & Гупта, Р. (2020). Entrepreneurship Development in Emerging Economies: India Case Study. New Delhi: Sage Publications.
8. Sharma, R. (2018). Small Business and MSME Sector in India: Growth, Challenges and Prospects. Himalaya Publishing House.
9. Singh, A. (2019). Indian Start-up Ecosystem: Policies, Challenges and Opportunities. New Delhi: Oxford University Press.
10. Рей, А. (2021). Digital Transformation and Inclusive Growth in India. Springer Nature.
11. Kumar, S. (2020). "Impact of Make in India Programme on Manufacturing Sector Growth." *International Journal of Economic Studies*, 12(3), 44–58.
12. Patel, M. (2019). "Role of Start-up India in Entrepreneurship Development." *Journal of Business and Innovation*, 7(2), 15–27.
13. Rao, P. (2021). "Financial Inclusion through PMJDY: A Review of Outcomes." *Indian Journal of Public Administration*, 67(1), 55–70.
14. Bhattacharya, J. (2022). "Digital India and Small Business Growth: Empirical Analysis." *Journal of Digital Economics*, 5(1), 23–41.
15. Gupta, V. (2020). "Skill India Mission and Employment Generation." *South Asian Labour Review*, 10(4), 67–77.
16. Mukherjee, D. (2018). "MSME Development in India: Policies and Performance Evaluation." *Economic & Political Weekly*, 53(34), 82–90.
17. Startup India Official Portal. (2024). Reports & Statistics.
18. Make in India Official Website. (2024). Sectoral Policies and Achievements.
19. Ministry of MSME Official Portal. (2024). MSME Schemes and Support Programs.
20. World Bank (2023). India – Entrepreneurship, Innovation and MSME Development Report.
21. OECD (2022). SME and Entrepreneurship Outlook: India Country Profile.
22. World Economic Forum. (2023). Global Competitiveness Report: India Profile.
23. UNDP. (2022). Human Development Report: India — Inclusive Growth Indicators.
24. Asian Development Bank (ADB). (2021). India: SME Sector and Digitalization Strategy.

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