



Does Entrepreneurship Drive Economic Growth? Insights from India

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Abstract

Entrepreneurship is the process of ‘creative destruction’ and it is viewed as one of the main supporting blocks of economic growth. Considering a period of 24 years from 2001 to 2024, we assess the relationship between economic growth and entrepreneurship in India. Findings from multivariate regression analysis highlight that entrepreneurship is a significant driver of India’s economic growth. However, challenges such as continued limitations on ease of doing business, skewed distribution of capital, lack of product demand, and skill deficits still hinder the nation’s entrepreneurial landscape. We finally discuss how our entrepreneurial ecosystem requires adequate government funding in R&D, patent application approvals, incubation networks in tier-II and tier-III cities, and the integration of targeted skill development programmes to continue to drive the nation’s sustained economic growth.

Keywords: Entrepreneurship, Economic growth, GDP, Innovation, Startup, Investment, India.

JEL Classification: L26, O47, O11.

1. Introduction

Entrepreneurship is one of the main pillars of economic growth. Classical economists such as Adam Smith associated entrepreneurs with capitalists, while J.B. Say correlated them with business organisers. However, it was Joseph Schumpeter who termed entrepreneurs as the driving force of ‘creative destruction’ through which they displace the out-of-date ideas, technologies, and institutions with new ones to enable long-run growth of the economy (Schumpeter 2021). In present times, entrepreneurship is defined as the process through which people identify, evaluate, and take advantage of opportunities to create new products, services, or ventures (Shane and Venkataraman 2000). In developed countries, productivity-enhancing technological change, competitiveness, and the emergence of high-growth ‘gazelle’ companies that facilitate output have been associated with entrepreneurship-led innovation (WEF 2023; Neumeyer et al. 2025). Similarly, entrepreneurship in East Asian economies such as South Korea and Taiwan supplements the state-driven industrial policies by rapidly broadening technological upgrading and export diversification (Perkins and Tang 2017). Research indicates that even in emerging economies, where entrepreneurship is largely compelled by necessity, an increase in innovation-based ventures positively impacts labour productivity, formalisation of firms, and economic resilience during structural transitions (Hamdan et al. 2021).

In the context of India, Subrahmanya (2021) mentioned how the country’s entrepreneurial ecosystem matured significantly between 2006 and 2015 due to the rise of Flipkart, Snapdeal, Ola, PayTM, and other internet-based startups, especially in cities like Bangalore and Hyderabad. In this regard, factors such as rising smartphone penetration, influx of global venture capital, and development of entrepreneurial hubs in cities like Bengaluru have been the most influential ones (Jha 2018). The Indian entrepreneurial ecosystem has been further institutionalised by the introduction of the ‘Startup India’ initiative in 2016, which has been providing assistance in terms of capital access, simplified patent processes, tax holidays, and easing procedures to start a business. As of 2024, over 1.67 million startup-based entrepreneurs are in operation in various states of India with a valuation of 349.67 billion (Ministry of Commerce and Industry 2025). The presence of such a broad entrepreneurial ecosystem, if coupled with robust institutions, financial depth, and increased innovation capacity, can play a vital role in boosting the GDP and productivity of the country.

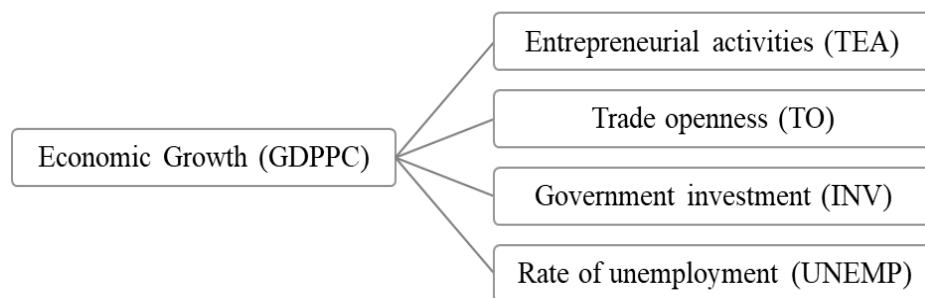
However, despite promising trends, the macro-level linkage of entrepreneurial activity and economic growth is under-explored in India. The existing literature has primarily concentrated

on micro-level predictors of entrepreneurship either in startups or MSMEs. This study tries to address the gap with respect to how the growth of entrepreneurship in the presence of different macroeconomic factors, like trade openness, government investment, and labour market conditions, influences India's economic growth. In addition to that, it further explores the challenges faced by Indian entrepreneurs that hinder its growth.

2. Research Methodology

We use secondary data to carry out the study, which are collected from the World Bank's World Development Indicators and Global Entrepreneurship Monitor (GEM) reports. We run time-series modelling to explore the relationship between economic growth and entrepreneurship in India between 2001 and 2024.

Figure 1: Conceptual framework of the study



Source: Authors' construction

As a proxy of economic growth, the growth rate of GDP per-capita (GDPPC) is considered, since it captures the health of an economy by accounting for standard of living. As demonstrated by [Li et al. \(2023\)](#), a better standard of living provides a favourable business ecosystem that supports entrepreneurship by enhancing human capital through innovation, infrastructural development, and providing swift access to financial resources. On the other hand, the total early-stage entrepreneurial activity (TEA) is our prime independent variable. It is used as a proxy to measure entrepreneurship growth. TEA considers the percentage of the population within the age bracket ranging between 18 and 64 years of age, who either intend to start a new entrepreneurial activity or are already the owners of an enterprise ([GEM 2025](#)). We have further included certain macroeconomic variables in the model to be able to explain its infrastructural heterogeneity. It includes trade openness (TO) as a proportion of trade to GDP, a factor that is known to drive economic growth, which facilitates innovation, competition, and productivity by integrating domestic economies with international markets

(Seti, Mazwane, and Christian 2025). Again, the ratio of total government investment to GDP represents another variable (INV). Government investment contributes positively to the economic growth of developing countries, as it plays a vital role in building infrastructure of these economies, including roads and utilities, which is essential for minimising the cost of transactions and enhancing efficiency (Jalles, Park, and Qureshi 2024). The final macroeconomic factor is the level of unemployment (UNEMP), which refers to the share of the labour force who does not have work but is available for and willing to work. According to the World Bank (2025), rising unemployment has an adverse effect on a country's economic growth.

It should be noted that the dependent variable GDPPC is measured both in its raw form and in its natural logarithm to account for potential non-linearities and to ensure robustness in the regression outcomes. The log-log model is not used in the study, since diagnostic tests reveal the model to have the least explanatory power. Therefore, the following linear and semi-log regression models are considered for our analysis:

$$\textbf{Linear (I):} \quad GDPPC_t = \alpha_0 + \alpha_1(TEA)_t + \alpha_2(TO)_t + \alpha_3(INV)_t + \alpha_4(UNEMP)_t + \alpha_5(GDPPC)_{t-1} + u_t$$

$$\textbf{Log-lin (II):} \quad \log-(GDPPC)_t = \beta_0 + \beta_1(TEA)_t + \beta_2(TO)_t + \beta_3(INV)_t + \beta_4(UNEMP)_t + \beta_5(GDPPC)_{t-1} + u_t$$

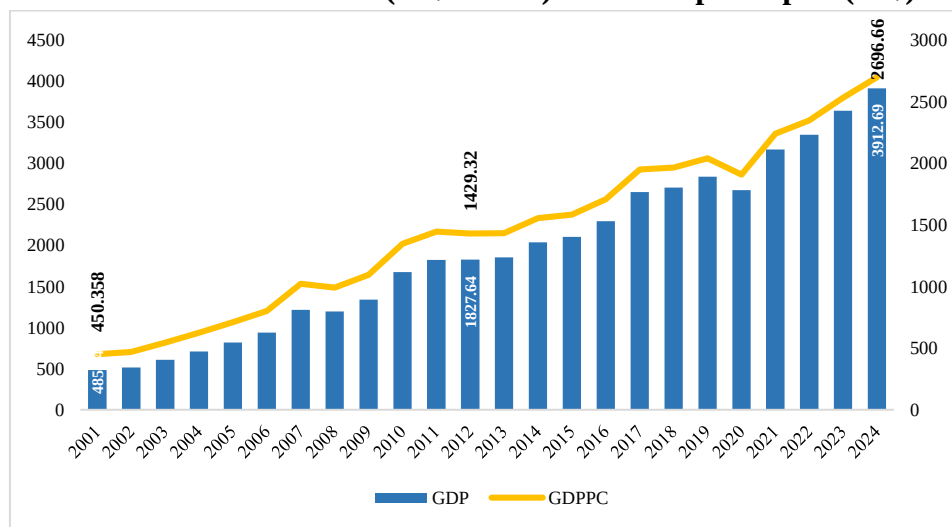
$$\textbf{Lin-log (III):} \quad GDPPC_t = \gamma_0 + \gamma_1 \log(TEA)_t + \gamma_2 \log(TO)_t + \gamma_3 \log(INV)_t + \gamma_4 \log(UNEMP)_t + \gamma_5(GDPPC)_{t-1} + u_t$$

The stationarity of the data series is verified using the Augmented Dickey-Fuller (ADF) test to avoid spurious regressions. Reliability and validity of the regression estimates are estimated through different diagnostic tests. The White's test is undertaken to assess heteroskedasticity, where a non-significant test outcome (p-value > 0.05) indicates that the model's standard errors are reliable. Furthermore, the existence of multicollinearity is tested using the variance inflation factor (VIF), where VIF staying close to zero confirms the absence of it and exceeding 10 confirms its presence. Again, the presence of autocorrelation is detected by using the Durbin-Watson test, where the d-statistic value ranging from 1.5 to 2.5 denotes the absence of it.

3. Results and Discussion

Figure-2 depicts the growth trend of India's GDP and GDP per-capita during 2001-2024. India has witnessed remarkable economic growth over the past two decades, with its GDP registering a compound annual growth rate (CAGR) of 9.08 percent from \$485.44 billion to \$3912.69 billion during the period 2001 to 2024. Correspondingly, GDP per-capita has also experienced a CAGR of 7.74 percent during the same timeframe, reflecting an improvement in the standard of living across India's demographic landscape.

Figure 2: Growth trend of GDP (in \$ billion) and GDP per-capita (in \$) in India



Source: Authors' compilation from World Bank's World Development Indicators

This sustained momentum of India's economic growth indicators has led the country to emerge as the world's fourth-largest economy in terms of total GDP, having overtaken Japan in 2025 with a nominal GDP exceeding \$4000 billion. A combination of various factors has led to this structural change. Among them, the developing entrepreneurial ecosystem with the vision of 'Atmanirbhar Bharat' is assumed to be one of the drivers of innovation-based entrepreneurial growth in the country (Kumar, Kataria, and Patiyal 2025).

Table 1: ADF test results

Variables	Test statistic	Integration order
GDPPC	-4.549***	I(0)
TEA	-4.704***	I(0)
TO	-4.105***	I(1)
INV	-3.912***	I(0)
UNEMP	-5.715***	I(0)

Source: Authors' estimation

*Note: *** indicates level of significance at 1 percent*

The ADF test results, presented in Table-1 reveal that all the variables except TO are stationary at level I(0), indicating no unit roots. However, TO denotes the presence of a unit root, which is made stationary by taking the first difference [I(1)], so that we can use OLS in estimating both linear and log-linear models.

Table 2: Results of Multivariate Regression Analysis

Variables	Coefficients		
	Model I	Model II	Model III
TEA _t	0.618**	0.057**	5.047*
TO _t	0.098	0.038	2.238
INV _t	0.457**	0.128***	14.463*
UNEMP _t	-1.095*	-0.054*	-5.259
GDPPC _{t-1}	0.001	0.013	1.474
Model Summary			
R ²	0.783	0.695	0.540
Adj-R ²	0.723	0.610	0.412
Mean VIF	1.290	1.240	1.890
White Test	0.345	0.365	0.371
DW Test	1.728	1.681	1.522

Source: Authors' estimation

*Note: ***, **, and * indicate level of significance at 1, 5, and 10 percent respectively*

Table-2 shows that the variable TEA is positive and statistically significant in all three specifications of models. This is in line with [Ordenana et al. \(2024\)](#), who have established a positive correlation between entrepreneurship and economic growth. The reason is that countries with greater entrepreneurship growth tend to enjoy enhanced market dynamism and diversification, which assists in mediating smooth cyclical shocks to spur future income growth ([Almodóvar-González, Fernández-Portillo, and Díaz-Casero 2020](#)). The endogenous growth

theory further contends how economic growth in the long term requires the development of human knowledge and human capital, where entrepreneurs play a key role (Osipian 2023). By blending new organisational structures with existing technological potentials through effective labour mobility, spreading of knowledge, and competitive pressure, they generate positive externalities, which enhance productivity (Audretsch, Belitski, and Fiedler 2025).

Among other macroeconomic factors, ‘INV’ has a significant positive relationship with economic growth across all model forms. This finding is supported by Foster, Vagliasindi, and Gorgulu (2022), who highlighted the advantageous purpose of government spending, especially in the fields of infrastructure, online connectivity, and human capital that boosts productivity and economic growth in emerging economies. Furthermore, public investment benefits technology and innovation, as a result of which governments across Asian countries are currently subsidising technology-based industries with grants and subsidies to achieve sustainable economic growth (Asian Development Bank 2018).

Again, ‘UNEMP’ has continuously displayed negative coefficients in all the models, with two models further showing its statistical significance. In theory, Okun’s law suggests that economic growth and the unemployment rate are negatively related to each other. The reason is that high unemployment reduces productivity, impairs entrepreneurial activities, affects aggregate demand, and thereby negatively impacts economic growth (Porrás-Arena and Martín-Román 2023). Moreover, rising unemployment in developing countries like India is also a sign of informality and structural rigidity, which are closely linked to slower GDPPC (Basole 2022). Finally, ‘TO’ and ‘lagged GDPPC’, although they have shown theoretically consistent signs, yet they lack statistical significance in any specification.

4. Challenges and Policy Interventions

Even though the growth of entrepreneurship has a significant impact on bolstering India’s economy, the channel through which entrepreneurs operate in the country remains constrained by various challenges. For instance, India is ranked 77th in the ‘ease of doing business’ index by the World Bank, which indicates systemic inefficiencies, opaque bureaucratic processes, and a barrier to new entrant enterprises (Korreck 2023). This can be understood through the fact that backlogs in the entrepreneurial patent applications in India have decreased 36 percent in terms of number of applications and 15 percent in terms of patent granting in 2024 as compared to 2020 (Chakraborty 2025). Moreover, capital investment still remains heavily

concentrated in cities like Bengaluru, Delhi, and Mumbai. It is only in recent times that entrepreneurs from Tier-II and Tier-III cities like Jaipur, Surat, Chandigarh, Bhopal etc., are attracting funds from capital investors, with 64 percent of those investments being made to the IT and fintech sector entrepreneurs ([Financial Express 2024](#)). Moreover, most entrepreneurs in India are encountering a lack of product demand, especially in the age of artificial intelligence (AI) and the internet of things (IoT), because of the lack of credibility. When AI is projected to add over \$15.7 trillion to the global economy by replacing conventional business models and establishing new entrepreneurial priorities, skill deficiency introduces another bottleneck in innovation, deterring economic growth ([The Hindu 2025](#)).

The magnitude of these challenges suggests that entrepreneurship alone cannot lift economic growth unless it is supported by a self-consistent ecosystem that creates ease of operation, lowers institutional uncertainty, and enhances the quality of human capital entering the entrepreneurial pipeline. Hence, the scheme of ‘Startup India: The Way Ahead’ has been introduced by the government of India to boost the ease of doing business by consolidating the capacities of the stakeholders so that the further ambition of having a digitally empowered and self-sustaining India can be achieved. Complementing this, over 55 regulatory reforms have been undertaken since 2016 to make compliance simpler and enable self-certification of the entrepreneurs. Moreover, the ‘Startups Intellectual Property Protection’ scheme offers fast-tracked and subsidised IP services to bolster innovation, while the ‘Bharat Startup Knowledge Access Registry’ (BHASKAR) scheme streamlines entrepreneurial activities by making coordination of entrepreneurs with investors, service providers, and government bodies ([Ministry of Commerce and Industry 2025](#)). Moreover, the ‘Mentorship, Advisory, Assistance, Resilience, and Growth’ (MAARG) programme aims at democratising the high-quality mentorship in various parts of India, so that they would become a global centre of skill development and entrepreneurial excellence ([Ministry of Skill Development and Entrepreneurship 2024](#)).

5. Conclusion

To sum up, the prime empirical finding of the study shows how entrepreneurship is positively associated with India’s economic growth. However, the challenges in this regard require a strategic and multi-dimensional policy response. Strengthening the entrepreneurial ecosystem needs a boost in R&D funding, expansion of incubation networks into Tier-II and Tier-III

cities, and establishing strong collaboration between the university and industry, in order for innovation-enhancing productivity of the entrepreneurs, as opposed to imitative ones, to get a push. Again, reforms that reduce procedural delays, enhance contract enforcement, increase patent filings, and improve the reliability of public infrastructure would further lower transaction costs and foster a stable ecosystem for economic growth. In this regard, India can learn lessons from South Korea's use of public procurement to support its early-stage entrepreneurs. This could offer a solution to India's recurring challenge of insufficient product demand, especially in sectors where market entry barriers are high. In this regard, expanding the 'One District One Product' framework could also be a way forward. Finally, the quality and sustainability of the entrepreneurial supply can be improved by using select skill-development programmes that combine entrepreneurship education with digital and managerial skills. To sum up, these measures can allow the Indian entrepreneurship landscape to evolve from a loosely-knit individual initiative into a systematic movement that can sustain high and inclusive economic growth.

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