



Research Article

## Impact of Entrepreneurship on Economic Growth: Evidence from South Asia

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### Abstract

Entrepreneurship plays a crucial part in driving economic growth by acting as a channel for knowledge spillovers and facilitating the commercialization of new knowledge, which is essential for economic development. This study examines how entrepreneurship affects economic growth by incorporating the role of trade openness (TR), Capital formation (K), and FDI in South Asia over the time frame of 2006-2023. The study utilized the Levin, Lin & Chu and PP unit root tests, as well as OLS, FE model, and RE models. The results from OLS show that entrepreneurship is statistically significant as an independent determinant of economic growth. In addition, trade openness, capital formation, and FDI also contribute to economic growth in this region. The results from FE or RE models support that all of the used economic variables were also found to be significantly correlated with economic growth. This study also encourages Governments to foster entrepreneurship through suitable regulations that promote a business-friendly environment and provide for infrastructure development.

Keywords: Entrepreneurship, Economic Growth, South Asia.

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## Introduction

Economic growth represents the continual increase in a country's productive capacity and living standards over time. In terms of individual income, job prospects, building projects, and general quality of life for citizens, an economy will show how advanced it is. If there have been sustained periods of growth in a given location, then that will allow for a reduction in poverty rates, improved levels of social welfare, and increased competitiveness globally (improving the area's overall economic power). Thus, understanding the drivers of economic growth on the micro-level has been the central focus of development economics. Entrepreneurship is becoming a widely accepted driver of the global economy, in part due to its positive impacts on productivity and income levels (Kim et al., 2022). Entrepreneurs help to create new products and services, create new business opportunities, provide jobs, and create competition in the marketplace, all of which help to foster economic growth and innovation. Several studies have confirmed a relationship between entrepreneurship and economic development, which is enhanced through the presence of positive institutional settings (Zarkua et al., 2025).

Entrepreneurship contributes to economic development in many interconnected ways, which includes creating businesses as part of its overall contribution to economic growth through entrepreneurship. Initially, entrepreneurial ventures provide innovation through turning research and development into commercially practical solutions and increasing the competition of multiple organizations, and increasing their level of productivity within the workplace (Amaghouss & Ibourk, 2013). In a knowledge-based economy, patents and technological advancements are used to illustrate the innovation-driven nature of entrepreneurship as it relates to its overall functionality within the economy. Finally, entrepreneurship provides a considerable amount of employment opportunities, either by creating new businesses directly or indirectly through

extended connections within the supply chain and the impacts of increased demand in the market (Zahoor et al., 2025). The creation of employment opportunities through entrepreneurship is an effective means for addressing issues related to unemployment by providing means to support a variety of populations.

Nonetheless, there doesn't appear to be any causal relationship between entrepreneurship and economic prosperity. The quality of the entrepreneurial environment is equally important for generating economic growth (Gomes et al., 2025). For example, government-supported startups have produced an adverse effect on the development of high-income economies but an encouraging effect on the growth of upper-middle-income economies. South Asia is characterized by persistent structural issues, rapid population growth, and differences in how countries have developed. The people of South Asia account for about 25% of the global population, yet there is an extreme amount of economic disparity within and across countries, and there are large differences in per capita income levels. While the acceleration of industrialization and service sector growth throughout many parts of South Asia has been particularly rapid over the last few decades, the presence of agriculture and informal economic activities still accounts for a large share of the structural foundation of South Asian economies.

Unemployment has become a persistent issue in South Asia's economy, as a lack of jobs prevents the use of human resources and creates social unrest among the youth. The inability to absorb the growing labor force through conventional means, e.g., public system jobs or large corporations, necessitates alternate means of job creation. While poverty continues to decline overall, the region's absolute poverty rate remains high. Households are unable to purchase many of the goods/services available, so they consume few high-quality items. The majority of South Asia's economy consists of informal businesses, or more specifically, the informal economy. A large portion of the economy operates under the informal economy and, therefore, it is outside the regulatory reach of government authorities. The informal economy has exhibited great flexibility to fluctuations in the economy and provides millions of people with jobs. However, the informal economy creates challenges for the government in tax collection, access to formal banking sectors for loans, and the ability of the informal economy to produce more goods and services. Many female-run informal businesses provide income for their households through their businesses, which in turn helps to support multiple areas in their households, such as educational needs, health necessities, recreational needs, and retail purchases. Despite the substantial contributions of female-run informal businesses, there are many issues that they face, including cultural constraints on women's mobility, difficulty obtaining financing and/or cash for operating a business, and inadequate institutional support (Muhammad et al., 2021).

Poor infrastructure makes it difficult for South Asia to grow economically and develop entrepreneurs. The lack of digital connectivity, poor transportation systems, inconsistent electricity, and limited access to quality health care and entrepreneurial education limit access to markets and increase the cost of doing business for entrepreneurs. Structural barriers, such as poor infrastructure, poor digital connectivity, and a lack of institutional support for business development and growth, also affect business development; however, these barriers are particularly prevalent in rural areas (Rashid et al., 2025). Due to these structural issues, entrepreneurship holds a significant role in South Asian economies. In particular, because of the low number of formal job opportunities available in the region, entrepreneurs serve as a key source of employment and assistance in reducing poverty. Given the high percentage of the population in South Asia that is under the age of 30, entrepreneurship also provides an avenue for gaining the benefits associated with this demographic, while providing the means to generate wealth through entrepreneurship by providing capital and resources to people involved in entrepreneurship. As such, promoting entrepreneurship in South Asia is essential to transitioning to sustainable development, providing equitable patterns of economic growth, and mitigating disparities in economic growth among regions/countries within the South Asian region. In addition, renewable energy production and entrepreneurial-type activities that are environmentally friendly have contributed greatly to increased rates of sustainable development in developing Asian countries; therefore, environmental entrepreneurial activity is an important contributor toward resolving climate change issues (Wei et al., 2023). Gaps in the entrepreneurship-growth relationship exist despite entrepreneurship being generally accepted as

a significant driver of economic growth; however, there is a lack of comprehensive studies regarding South Bangladesh's economy. Even though many authors have conducted extensive studies in more developed countries and/or performed analyses across a number of countries from different regions, very few authors have studied the unique economic environments of the four major South Asian nations due mainly to their differing institutional, developmental, and historical factors. Although research has shown many potential benefits of entrepreneurship, it is uncertain how entrepreneurship relates to regional economic growth. Accordingly, the existing research on the impact of entrepreneurship on economic growth has produced mixed results, with some authors suggesting strong signs of the positive impact of entrepreneurship on economic growth in the region, while other authors have, to varying degrees, questioned the value of traditional measures used to assess the strength of entrepreneurship in each region.

The findings of this study are important to several parties interested in the development of South Asia. Policymakers can gain access to empirical data that will help them understand how entrepreneurship contributes to economic growth and will therefore provide more informed decision-making regarding the allocation of resources, entrepreneurship promotion programs, institutional reform measures, and infrastructure investments. The information will also assist government agencies in South Asia in creating policies and programs that are based on specific interventions, such as microfinance access, business training programs, infrastructure upgrades, and regulatory simplification, to help entrepreneurs in the South Asian region. The research enables the formation of country-specific policies that take into account the characteristics of each nation while utilizing the data from the regional level, since the developmental stage and institutional contexts differ from country to country in South Asia.

This study contributes to the literature on entrepreneurship by applying systematic empirical analysis to South Asia as a unique regional area. In addition, the research addresses the gaps in entrepreneurship measurement, mediating mechanisms, and contextual moderators experienced in developing economies identified in the literature. The research provides a richer understanding of how the relationship between entrepreneurship and growth is theoretical; it also gives a basis for further study in how to understand entrepreneurship as it relates to macro-economic conditions and institutional contexts in underdeveloped countries.

Following this introductory section, the study is designed as follows: Section 2 provides a comprehensive review of existing literature that provides empirical data relating to entrepreneurship and economic growth, Section 3 describes the methodology utilized in this study through the use of econometrics, Section 4 provides a description of the data sources and include descriptive and correlation, Section 5 contains a discussion of the results obtained, while Section 6 provides the conclusion.

## **Literature Review**

Chowdhury et al. (2025) explored the positive influence of entrepreneurship on economic growth, and it is reinforced by technological innovation and the quality of institutions. South Asia was affected undesirably in economic expansion and trade. In their study, Rashid et al. (2025) determined the main factors that determine entrepreneurship in Pakistan by exploring how the availability of finance, educational level, investment in innovation, growth of infrastructure, and regulatory environment affect entrepreneurial activities in the long run. Based on quarterly macro-level data between 1996 and 2023, the study indicates that financial availability, R&D investment, and regulatory quality are important in improving entrepreneurship, at least in the short-term. However, the lack of education, inadequate infrastructure, and low economic development seem to hinder entrepreneurial development. The results propose that entrepreneurship is successful in the presence of enabling financial systems, transparent regulatory frameworks, and a focus on innovation. Moreover, institutional obstacles in the form of poor infrastructure, digital connectivity, and poor institutional support are still hindering the formation and growth of businesses.

The study determined that financial access, policy stability, modernization of infrastructures, and investment in research can all be used to enhance the entrepreneurial system and subsequent sustainable economic development. Zouita et al. (2021) investigated how entrepreneurship affects the growth of the economy of 95

developing economies during 2006-2018. The study also revealed a positive and statistically significant relation between entrepreneurial activity and economic growth, using fixed effects, random effects, and GMM estimators. The results also indicated that the growth-promoting impacts of entrepreneurship are more effective in low-income economies than in high-income economies. Furthermore, it was revealed that institutional quality enhanced the growth effect of entrepreneurship. Kim et al. (2022) presented a cross-sectional study of the correlation between entrepreneurship and economic growth of 111 economies from 2001 to 2019. The paper distinguished between opportunity-based and necessity-based entrepreneurship and pointed out that aggregate entrepreneurship is not always conducive to growth. Rather, opportunity-driven entrepreneurship was determined to have a positive correlation with economic growth in developing economies where manufacturing is a dominant factor. Entrepreneurship has been seen as a very important factor in determining economic development, especially in terms of income and productivity.

In the study of Zarkua et al. (2025), entrepreneurship is considered the driver of economic development using a cross-sectional dataset of 98 countries during 2015-2019, using OLS and Two-Stage Least Squares (2SLS) to control the problem of endogeneity. The empirical outcomes are good indicators of cooperative and statistically significant correlation between entrepreneurship and economic development. In particular, the results indicate that a one percent rise in the Global Entrepreneurship Index is linked to an average rise of 3.04% in the GDP per capita. Some also argued that entrepreneurship does not exist in its own space and hence its role in economic development is magnified in a favorable institutional environment. Gomes et al. (2025) examined the impact of the entrepreneurial framework conditions on economic growth. The article employs an unbalanced dynamic panel model of 37 OECD countries between 2000 and 2020. The sources of data include the Global Entrepreneurship Monitor (GEM), national expert surveys, and the World Bank. There is a great variety of entrepreneurial framework conditions taken into consideration in the analysis, such as entrepreneurial education, infrastructure, government policies, access to finance, and R&D transfer. As an example, government entrepreneurship programs present a negative impact in high-income countries but an encouraging impact in upper-middle-income economies, which indicates that policy performance is dependent on the level of development of a country. On the same note, taxes and bureaucracy also harm growth, especially in the economies of the upper-middle-income countries.

Ahmed et al. (2024) explored the role of entrepreneurship on the growth of the economy through the utilization of more than one entrepreneurship proxy in high-income and middle-income nations, using panel data between 2003 and 2019. The fixed and random effects models were used in the study in order to find the growth effects of the entrepreneurial activity. The results also indicate that the proxies of entrepreneurship do not significantly affect economic growth in both income groups. Aparicio et al. (2016) examined the recognized factors that determine opportunity entrepreneurship and its consequent effect on economic growth in 43 countries in the years 2004-2012. The research adopted the 3SLS analysis using unbalanced panel data and, at the same time, evaluated the connection between the opportunistic entrepreneurship, institutional factors, and economic growth. The empirical findings indicated that the informal institutions had a greater impact on the opportunity entrepreneurship than the formal institutions. Particularly, corruption control, trust in personal abilities, and financial growth produced a positive and significant impact on the opportunity entrepreneurship, and, consequently, a positive effect on economic growth.

Amaghous and Ibourk (2013) examined how entrepreneurial activities, innovation, and economic growth are associated with each other in 19 countries in the OECD during 2001-2009. The empirical findings of fixed effects and random effects showed that entrepreneurial activities and innovation both had a significant positive effect on economic growth. The insufficiency of the all-encompassing data made it impossible to test the effect of entrepreneurial activity on the economic growth of a larger sample, especially that of developing countries. Other policy interventions that were recommended by the study involved the promotion of the culture of entrepreneurship through the education systems at the onset of all sectors of higher education, with particular focus on innovative projects with high added value, and the process of new business establishment being less administrative. Doran et al. (2018) examined how entrepreneurship contributes to the economic

growth of 55 countries between 2004 and 2011. In the case of high-income nations, entrepreneurial attitudes showed a positive and significant influence on the GDP per capita. On the other hand, entrepreneurship activity harmed the GDP per capita in the middle/low-income economies. The analysis by Stoica et al. (2020) highlighted that decision makers are supposed to pay attention to destroying the macroeconomic obstacles that the entrepreneurs encounter and also take steps to facilitate innovative entrepreneurial practices. The article also showed the need to have policies that boost the business climate and provide chances to promote opportunity-motivated entrepreneurship in place of necessity-motivated entrepreneurship, as the latter may provoke long-term adverse economic development.

Hamdan et al. (2022) explored the growth of entrepreneurship in emerging economies by looking at new insights and approaches through institutional lenses in order to learn how formal and informal institutions interact and contribute to the growth of entrepreneurship and economic growth in various emerging market settings. The results indicated that emerging and developed economies are very different, mainly because the institutional infrastructures are not well developed, so the level of entrepreneurship is usually low at the beginning. Investigating the multifaceted interdependence between tertiary education and entrepreneurship using innovation capabilities and economic growth over a period of thirty European countries (2003-2020), Apostu et al. (2022) explored the issue of whether tertiary education and entrepreneurship are significantly related to economic growth and how these two factors interact with each other in the context of both developed and developing countries. The key results were that tertiary education has a very highly significant positive impact on economic growth.

Research by Bakari (2024) on the comprehensive determinants of economic growth in 17 East Asia-Pacific countries examined the impact of capital, labor force, digitalization in the form of internet use, financial development, and trade openness, and attempted to deliver novel findings on how each of these variables affects economic success in one of the most dynamic regions in the world. The study relied on the yearly data between 2004 and 2023, using various advanced econometric models such as fixed effects and random effects specifications, GMM, and Two-Stage Least Squares (2SLS) to overcome the endogeneity problems. In the study of Munyo (2022), the analysis was performed in South American nations throughout the 2002-2018 period, as the primary sources of data were Global Entrepreneurship Monitor (GEM) data and World Bank indicators. The results showed that entrepreneurship and economic growth were positively and statistically significantly related, but traditional early-stage entrepreneurial activity had weaker or inconsistent effects. The study has some limitations, even though it has a strong methodological contribution. It also emphasizes South American countries, and this does not mean that the findings can be generalized to other developing parts of the world, like South Asia or Africa. Besides, the issue of institutional quality and firm-level dynamics was not thoroughly examined.

Erken et al. (2018) clarified the long-term relationship between entrepreneurship and economic growth of 20 OECD countries during the period of 1969 to 2010 and gave prime attention to Total Factor Productivity (TFP). The study was developed to fill the literature gap about the role of entrepreneurship in economic productivity. To check the robustness and stability of the results, dynamic OLS and GMM. Business ownership rate and GDP per capita are the two measures of entrepreneurship, whereas the other main variable is quantified using human capital, R&D capital, labor participation, and number of hours worked. The result reveals that entrepreneurship has a positive impact on TFP.

Moreover, the traditional drivers such as R&D and human capital are not reduced by entrepreneurship. Raof (2021) examined the interaction of enterprise resource planning (ERP) systems and entrepreneurial orientation on the performance of small and medium-sized enterprises (SMEs) in a South Asian economy, and the mediating variable was organizational excellence. The fundamental aim of the research was to resolve the discrepancy in previous results on the topic of ERP and entrepreneurial orientation with the help of the introduction of organizational excellence as the explanatory mechanism. The study involved gathering data on manufacturing SMEs in Pakistan in 2019 and 2020. The findings showed that both ERP and entrepreneurial orientation positively and significantly influence organizational performance, and organizational excellence

partly mediates the relationships. The results indicate that the integration of technology and entrepreneurial strategic posture is associated with improved performance of firms when guided by robust organizational practices. Cheng and Adejumo (2021) analyzed the channels of entrepreneurship that have contributed to sustainable development in 46 countries in Asia between 1990 and 2017 using GMM analysis to evaluate the impact of basic requirements, efficiency enhancers, and innovation-institutional channels on entrepreneurial outcomes in the form of gross national income and gross fixed capital formation. The study results showed that the increase in life expectancy and reduction of inequality have a strong impact on entrepreneurial performance through the basic needs channel, whereas higher education proved to be an efficiency-enhancing factor that drives income more effectively than innovations.

### **Econometric Model**

Entrepreneurship is seen as a factor associated with lower rates of poverty and better economic outcomes. Consider the evidence demonstrating that microfinance and small and medium-sized enterprises (SMEs) can provide households with an opportunity to generate income, and therefore pull them out of poverty (Porter, 1990). Thus, entrepreneurship is a key ingredient to transforming the economic landscape of South Asia, as it promotes growth and alleviates poverty through a combination of competition, innovation, and support institutions. Trade openness stimulates growth by efficiently allocating resources, leading to greater factor accumulation. Currently, due to trade openness, international technologies are transforming from wealthy to developing nations (Hossain, 2011; Goldberg et al., 2009). Capital formation and FDI also stimulate the growth of a country by investing in infrastructure and innovative expertise, and innovation as well as human capital. Through the following model, the impact of entrepreneurship on economic growth is established.

$$\ln EG_{it} = \alpha_0 + \alpha_1 \ln EN_{it} + \alpha_2 \ln TR_{it} + \alpha_3 \ln K_{it} + \alpha_4 \ln FDI_{it} + \varepsilon_{it} \quad (1)$$

In equation 1, EG is economic growth, and EN represents entrepreneurship, FDI signifies the foreign direct investment, TR and K symbolize trade openness and capital. These variables are transformed into the natural logarithm. Where  $i$  signifies the countries,  $\varepsilon$  shows the error term, and  $t$  stands for the time duration from 2006 to 2023, whereas  $\alpha_1$ ,  $\alpha_2$ ,  $\alpha_3$ , and  $\alpha_4$  are the slope parameters of  $\ln EN$ ,  $\ln TR$ ,  $\ln K$ , and  $\ln FDI$ .

To find out the influence of entrepreneurship on economic growth, the panel unit root test OLS is employed, and random effects and fixed effects models are also applied.

Panel data are processed using the OLS technique, which does not take individual influence into account. Assume that the intercept and slope coefficients in this process stay constant over time and space. Complete pooling has a disadvantage in that it fails to account for unobserved heterogeneity, which might result in bias from missing variables. Furthermore, comparable cross-sectional effects within and between variables are assumed by the coefficients. Combining cross-sectional and time-series observations gives panel OLS additional data points, which enhances the accuracy and dependability of the estimates. This is one of its key benefits. Panel data also makes it possible to correct for unobserved heterogeneity, which lowers the bias caused by omitted variables and produces more accurate results.

A random effects model accounts for variability within and across individuals or groups. The effects in the random effects model are not related to the predictors in the model. Random effects model is advantageous in that it takes into account variability at multiple levels and is more efficient in estimating parameters and generalizing to a larger population. Nonetheless, they do have limitations, e.g., they are based on the assumption that the random effects are uncorrelated with the predictors and that the random effects are normally distributed. In those cases, if the assumptions are not met, results could be biased.

A fixed effects model is a statistical technique for examining panel data, which is data collected over time. The fixed effects model allows researchers to adjust for unobserved effects that do not change over time by asserting that the individual-specific effects are associated with the independent variable. Providing more accurate estimates of the effect of the independent variables on the dependent variables is particularly important for fixed effects models because this model also helps to eliminate some omitted variable bias.

## Data and Variables

The dataset for the period of 2006 to 2023 is derived from WDI. Economic growth is reflected as the dependent variable, whereas entrepreneurship is considered as an explanatory variable. Economic growth is the increase in the output of goods and services by an economy over a specified time period, typically reported as a percentage change in real GDP. Economic growth is an important barometer of economic health, as it reflects the ability of an economy to increase production and improve the standard of living for its people. Economic growth can stem from several different factors, including increases in labor productivity, technological advancements, and capital accumulation. In economics, entrepreneurship is the process of starting and running a new business. It involves recognizing new business opportunities, investing resources, and taking risks to develop and operate a new business. Entrepreneurs are often seen as key contributors to innovation, employment, and economic development because they create new goods and services, create efficiencies in the economy, and increase competition in the market (Schumpeter, 1934).

Trade openness is the degree to which a country allows free trade with other countries; it is typically calculated by dividing total trade (imports plus exports) by GDP. The trade openness ratio may affect economic growth, efficiency, and competitiveness, and it signals the level of integration of a country's economy with the global economy. A higher trade openness ratio suggests a higher level of integration with the global economy, which can result in greater competition and access to a wider variety of goods and services.

Capital describes financial assets or resources that people, companies, or governments use to produce goods and services. It encompasses material assets required for industrial production, such as buildings, machinery, and tools, as well as financial assets. Capital is necessary for a society's economic expansion, since it improves efficiency and encourages innovation, and increases productive capacity. Some of the main purposes of capital are to finance infrastructure investments, supply manufacturing inputs, and provide a gradual return on investment. FDI refers to a financial investment made by an individual or business in one country in economic activity in another country. This project usually assumes an investment of a long-term nature in a foreign enterprise, which will typically demonstrate a magnitude of influence or control over that enterprise. The primary purpose of FDI is to support economic development, improve the transfer of technology, create jobs, and enhance productivity levels in the host country. It can also strengthen economic ties and promote globalization.

Table 1. Variables measurement.

Variables	Symbol	Measuring Unit	Source
Economic Growth	EG	GDP per capita (constant 2015 US\$)	WDI (2025)
Entrepreneurship	EN	New business density (new registrations per 1,000 people ages 15-64)	
Trade Openness	TR	Percentage of GDP	
Capital	CAP	Percentage of GDP	
Foreign direct investment	FDI	Net Inflows (% of GDP)	

## Descriptive statistics

The descriptive statistics are clarified in Table 2; the mean value of economic growth (EG) is 2050.3, and the median is 1629.3. The lower bound (617.48) certainly indicates some businesses were performing poorly, while the upper bound (4495.7) indicates there were several outliers. Clearly, the standard deviation (1110.5) indicates a lot of variance around the mean.

The averages of trade openness, capital and FDI are 52.906, 33.575, and 1.0947, respectively. The positive skewness (0.7256) indicates some right-sided distribution of EG with a few high performers pulling the average up. Furthermore, the kurtosis (2.3478) suggests a moderate degree of normalness, but high kurtosis for FDI

(8.8011) suggests outliers, meaning a concentration of FDI among a few businesses. Overall, while some firms are excelling with strong economic growth, differences in performance levels suggest that there are likely discrepancies worth investigating further.

Table 2. Results of descriptive statistics.

Variable	EG	EN	TR	K	FDI
Mean	2050.3	0.3273	52.906	33.575	1.0947
Median	1629.3	0.1304	46.372	32.116	0.8179
Max.	4495.7	1.3801	108.16	69.449	5.8813
Mini.	617.48	0.0211	24.702	14.115	-0.6388
Std. Dev.	1110.5	0.3491	21.733	13.158	0.9927
Skewness	0.7256	1.2444	1.0697	0.6169	1.9218
Kurtosis	2.3478	3.7514	3.2345	3.1464	8.8011

**Correlation Matrix**

Table 3 shows the results of the correlation matrix. Accordingly, entrepreneurship (EN) is showing a positive correlation with economic growth. Similarly, TR and economic growth (EG) have a positive correlation (0.4147), suggesting that improvement in TR may contribute to improvement in the economy overall. Indications of FDI appear to have a positive impact on economic growth.

Table 3. Results of correlation matrix.

Correlation	EG	EN	TR	K	FDI
EG	1				
EN	0.0957	1			
TR	0.4147	-0.0899	1		
K	0.2867	0.0994	0.0522	1	
FDI	0.2921	-0.1321	0.0888	0.03872	1

The outcomes of the unit root are described in Table 4. PP- Fisher Chi-rectangular, and Levin, Lin & Chu tests are undertaken for this purpose. According to the results, economic growth, entrepreneurship, trade openness, and capital formation are not stationary at the level form but have the order of integration at I (1). FDI does not have the property of a unit root but is stationary at both forms.

Table 4. Unit Root Test.

	PP- Fisher Chi-square				Levin, Lin & Chu			
	I (0)		I (1)		I (0)		I (1)	
	T-value	Prob.	T-value	p-value	T-value	Prob.	T-value	p-value
LnEG	12.399	0.259	34.392*	0.000	-0.8638	0.193	-2.579*	0.004
LnEN	13.339	0.205	48.25***	0.058	-1.571	0.581	-5.008**	0.027
LnTR	12.603	0.246	89.971*	0.000	-1.478	0.661	-9.515*	0.000
LnK	7.7758	0.650	78.901*	0.000	-1.1251	0.130	-9.1667*	0.000
LFDI	21.72**	0.016	68.675*	0.000	-2.8768*	0.002	-6.9803*	0.000

Note: Probabilities \*p < 0.01, \*\*p < 0.05, \*\*\*p < 0.1

## Results and Discussion

In Table 5, the findings of the panel OLS regression show that a number of factors have a major impact on economic growth. With a positive coefficient of 0.0915, entrepreneurship (EN) indicates that a 1% increase in EN corresponds to an increase in economic growth of about 0.0915%. Oyetunde et al. (2016) have also found that entrepreneurship plays a crucial role in promoting economic development. With a coefficient of 0.9769, TR also has a large positive effect, meaning that for every 1% increase in international trade, economic growth is increased by 0.98%. This result is also aligned with the work of Seti et al. (2025). With a coefficient of 0.4394 and a p-value of 0.0724, capital formation exhibits a positive and significant influence on economic development. Yeboah et al. (2025) also showed in their study the same findings between capital formation and economic growth. FDI has a coefficient of 0.1684, which indicates that any 1% increase in FDI leads to a growth in the economies of South Asia by 0.168%. Raihan et al. (2025) also concluded the same connection between FDI and economic expansion. The value of R<sup>2</sup> is 0.58, which means that 58% of the variation in the model is explained by entrepreneurship, trade, capital formation, and FDI.

In Table 5, the results of the random effects model are also displayed. The economic factor, entrepreneurship (EN), has a positive and significant impact on economic growth with a coefficient of 0.0869 ( $p < 0.01$ ), which means that any 1% increase in EN becomes the cause of 0.0869% economic prosperity in South Asia. Gu and Wang (2022) also indicated the same connection between EN and economic expansion. Trade openness and capital formation are also the improving factors of the economies, as their coefficients are 0.9589 and 0.4068, indicating that a 1% increase in these economic factors leads to an increase in economic growth by 0.9589 and 0.4068, respectively. The positive value of FDI demonstrates its improving effect on the economic development by 0.1635%. Kurniawati (2017) also confirmed that capital accumulation and the activities related to trade openness and FDI are helpful in boosting economic expansion. Notably, the constant value of C has an overall large value of 5.3252 ( $p < 0.01$ ), suggesting growth in the model when all other variables are held at zero. Out of the 90 observations, 65 percent of the variance of economic growth can be captured in the model.

Table 5. Empirical results.

Variables	OLS		RE		FE	
	Coeff.	Prob.	Coeff.	Prob.	Coeff.	Prob.
LnEN	0.0915*	0.0007	0.0869*	0.0015	0.0557**	0.0137
LnTR	0.9769*	0.0012	0.9589*	0.0021	1.6370*	0.0001
LnK	0.4394***	0.0724	0.4068***	0.1016	0.9365*	0.0016
LFDI	0.1684*	0.0000	0.1635*	0.0000	0.2128*	0.0003
C	5.3907*	0.0000	5.3252*	0.0000	4.4772*	0.0000
Obs.	90					

The upshots of the fixed effects model demonstrate that each of the included variables affects economic growth at different levels of statistical significance. Specifically, there is an increase in economic growth of approximately 0.0557, as a result of 1% increase in the level of entrepreneurship (EN), at a significant level of 5%. The findings of the current work are the same as the conclusion of Salgado-Banda (2007). With a coefficient of 1.6370, trade openness (TR) has a substantial effect; at the 1% increase in TR is associated with an increase of approximately 1.6370% in economic growth. Similarly, capital (K) and foreign direct investment (FDI) have positive effects on economic growth; these are significant at the level of 1%, with coefficients of 0.9365 and 0.2128, respectively. Rakshit (2022), Kanu and Ozurumba (2014), and Yang and Shafiq (2020) also summarized that international trade, capital formation, and FDI boost the economy.

## Conclusion and Policy Implications

Entrepreneurship has a positive impact on the economy through increasing productivity and, ultimately, GDP

growth, increasing market competition and diversification, and encouraging innovation. The study examines how entrepreneurship (EN) boosts economic growth (EG) by integrating the contribution of trade openness (TR), capital formation (K), and FDI in South Asia, covering the time period 2006-2023. The study applied various approaches, which include OLS, random effects, and fixed effects models. The empirical findings of the OLS approach exposed that EN, TR, K, and FDI contribute to the economic expansion by 0.0915%, 0.9769%, 0.4394%, and 0.1684%, respectively. In the case of the RE model, the coefficients of EN and TR are 0.0869 and 0.9589, which indicate that any 1% progression in entrepreneurship and trade leads to 0.0869% and 0.9589% rise in the growth rate of the economies, respectively. Capital accumulation and FDI are also beneficial factors as these increase the economic growth by 0.4068% and 0.1635%. The consequences of the fixed effects approach provide confirmation that EN, TR, K, and FDI are the foremost contributors to economic growth. Based on the results, the governments ought to formulate policies that promptly endorse a business-friendly environment to accomplish continuous growth of economies, and this can be achieved by greater availability of financing and legislative reforms for entrepreneurs. Moreover, international trade can be made possible by dropping trade obstacles. Capital creation can also be improved by policies that stimulate investment and savings. Additionally, investment incentives can assist in increasing the inflow of FDI. All these actions would provide a robust basis for the sustainable economic growth of South Asia.

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