

Nascent Entrepreneurship and Economic Growth in the Middle East and North Africa countries: An analysis of panel data from 2009 to 2022

المؤسسات الناشئة والنمو الاقتصادي في دول منطقة الشرق الأوسط وشمال أفريقيا:

دراسة قياسية للفترة (2009-2022)

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Received: 05/07/2024**Accepted:** 22/11/2024**Published:** 31/12/2024**Abstract:**

This study aims to explore how entrepreneurship could enhance the economic prosperity of the MENA region. MENA countries are characterized by low export diversification due to their abundant natural resources. The study considers GDP per capita, non-oil exports, inflow FDI, manufacturing value-added, and trade openness using panel data that covers thirteen MENA nations from 2009 to 2022. Non-oil exports and incoming foreign direct investment (FDI) positively and considerably affect economic growth. In contrast, entrepreneurial density has a negative and significant effect on growth, according to the GLS estimation results. In addition to shedding insight into the significance of non-oil exports and FDI for economic development, this study provides a more nuanced view of the effects of entrepreneurship, contributing to the existing literature in this field.

Keywords: entrepreneurship, economic growth, non-oil exports, FDI, MENA.**JEL Classification Codes:** L26, F15, F43, O11, O53, C23.**ملخص:**

تستعرض هذه الدراسة تأثير المؤسسات الناشئة وريادة الأعمال في النمو الاقتصادي لدول منطقة الشرق الأوسط وشمال أفريقيا. تتميز دول منطقة الشرق الأوسط وشمال أفريقيا بمستوى منخفض من تنوع الصادرات نتيجة لوفرة الموارد الطبيعية. تهدف الدراسة القياسية إلى قياس أثر كثافة المؤسسات الناشئة الجديدة، الناتج المحلي الإجمالي للفرد، والصادرات غير النفطية، والاستثمارات الأجنبية المباشرة الواردة، والقيمة المضافة للصناعات التحويلية، والانفتاح التجاري على النمو الاقتصادي خلال الفترة الممتدة من (2009-2022) في 13 دولة بالمنطقة. تكشف نتائج التقدير بواسطة تقنية *GLS* أن مؤشر ريادة الأعمال يؤثر على النمو الاقتصادي معنوياً وعكسياً، بينما تؤثر الصادرات غير النفطية والاستثمارات الأجنبية المباشرة الواردة معنوياً وطردياً على النمو الاقتصادي. يثري هذا المقال الأدبيات السابقة من خلال تقديم رؤية متنوعة حول تأثير ريادة الأعمال وتسهيل الضوء على أهمية الصادرات غير النفطية والاستثمارات الأجنبية المباشرة للنمو الاقتصادي في المنطقة.

كلمات مفتاحية: ريادة الأعمال، النمو الاقتصادي، الصادرات غير نفطية، الاستثمار الأجنبي المباشر، منطقة الشرق الأوسط وشمال أفريقيا.

تصنيفات JEL : L26, F15, F43, O11, O53, C23.

INTRODUCTION:

Entrepreneurship, defined as creating and developing new businesses (Gries & Naudé, 2008), has become a key pillar of economic development strategies worldwide. Its importance is recognized in developed and developing countries due to its crucial role in innovation, productivity growth, competitiveness, job creation, and personal development (Grilo & Thurik, 2005). At the heart of this process, the entrepreneur plays a determining role in economic growth (Acs, 2006; Smith, 2010). Entrepreneurial success is primarily based on skills, creativity, and innovative capacity (Schumpeter, 1934; Galindo & Méndez, 2014). This growing recognition of entrepreneurship as a driver of economic growth has fostered the emergence of startups (Saim, 2023).

Startups, defined as young, innovative companies with a strong potential for market impact (Marty, 2002), are considered essential vectors of innovation and economic growth, particularly in emerging entrepreneurial ecosystems (D'Andrea et al., 2023; Gries & Naudé, 2008). Their importance is highlighted in the economic literature as a key explanatory factor for development disparities between countries and regions (Gries & Naudé, 2008; Stoica et al., 2020; Thurik, 2009).

The creation of startups plays a crucial role in economic dynamics (van Stel et al., 2005). Gries & Naudé (2008) argue that these new businesses are as important as the development of existing companies, as they are more likely to grow, create new jobs, promote innovative and flexible organizational forms, and boost competitiveness. This multidimensional contribution of startups to the economic system is widely admitted as a critical driver of innovation and economic growth (Galindo & Méndez, 2014; Stoica et al., 2020; Acs et al., 2005; Smith, 2010). Entrepreneurial activity embodied by startups is therefore considered a key vector of regional and national economic development (Saim, 2023; Hafer, 2013). Its impact on innovation, job creation, and competitiveness makes it a central element of contemporary economic development policies.

Recognizing the role of entrepreneurship in starting new enterprises and its impact on countries' economies, it is important to understand and evaluate the situation in the MENA region. The closeness of MENA countries to European and Asian nations, their abundance of labor and raw supplies, substantial market size, and unique cultural and religious should rank them among countries with the highest start-ups worldwide. The Global Entrepreneurship Monitor (GEM) showed that MENA nations have a low rate of entrepreneurship, notably for launching new enterprises. This is surprising considering the notable advantages these countries possess, which set them apart from other nations (GEM, 2022). The GEM report of 2022 showed an average early-stage business formation rate of 12% in MENA between 2004 and 2021. Compared to other global regions, this percentage is low given its long length.

Considering the information provided, a research problem might arise: To what extent does entrepreneurial activity, particularly nascent entrepreneurship, contribute to GDP growth in MENA nations, and what factors influence this relationship?

In purpose to answer this question, the following hypothesis could be suggested:

Hypothesis: Nascent entrepreneurship has a significant positive impact on economic growth in MENA countries.

This paper aims to use an econometrics approach to examine the relationships between aggregate economic variables, explicitly focusing on measuring the relationship between nascent entrepreneurship and economic growth in 13 MENA countries over the period 2009-2022. A quantitative analytic method will be employed, using panel data regression analysis.

The first section of this paper reviews the literature on entrepreneurship and startups, as well as their relationship with economic growth. The second section outlines the study's methodology, including the sample, variables, and estimated model. The third and fourth sections present the data description and model estimation. Finally, the last two sections discuss the main findings, address the study's limitations, and propose directions for future research.

1. Literature review:

Numerous studies have studied entrepreneurship and its impact on economic development. Acs (2006) proposes a dual definition of entrepreneurship, encompassing a professional dimension related to owning and managing a business and a behavioral dimension adapted to the ability to seize economic opportunities. In this context, entrepreneurial activity is described as discovering, evaluating, and exploiting opportunities.

As a specific manifestation of entrepreneurship, startups are distinguished from traditional small and medium-sized enterprises (SMEs) by their innovative nature and high potential for market impact. Marty (2002) emphasizes that these young companies, often anchored in the field of new technologies, are characterized by their agile structure and their ability to evolve quickly in an uncertain environment.

The economic literature widely recognizes the central role of entrepreneurial activity in economic growth and development. Schumpeter (1934), a pioneer in this field, considered innovative entrepreneurs the main drivers of technological, social, and human progress. This vision has been corroborated by subsequent research, such as that of Acs (2006), which highlights the contribution of entrepreneurship to job creation, increased competition, and increased productivity.

Several empirical studies have explored the relationship between entrepreneurship and economic growth. Galindo and Méndez (2014) analyzed the interactions between entrepreneurship, innovation, and economic growth in 13 developed economies, highlighting a positive feedback effect. Proença and Souakiazis (2022) examined the impact of entrepreneurship on economic development in 37 Organisation for Economic Cooperation and Development (OECD) member countries, using the Human Development Index (HDI) as a development indicator. Their results reveal a positive effect of entrepreneurship on human development.

The study by Acs et al. (2005) highlighted the role of entrepreneurial activity as a channel for knowledge spillovers that promote productivity growth. Hafer (2013) extended this analysis to 50 countries, showing a strong correlation between entrepreneurial activity and various indicators of economic development.

However, some studies present more nuanced results. Wong et al. (2005) found that only fast-growing firms significantly boost economic growth. VanStel et al. (2005) found that the impact of entrepreneurship on economic growth depends on the country's per capita income

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level, with positive effects in high-income countries but generally adverse effects in low-income countries.

Stoica et al. (2020) provided an additional perspective by analyzing the impact of different types of entrepreneurship on economic growth in 17 European countries. Their results highlight that the effect of entrepreneurship varies according to the country's stage of economic development, with opportunity-driven entrepreneurship having a more significant impact in transition countries. In contrast, necessity-driven entrepreneurship would significantly influence innovation-driven countries more significantly.

In conclusion, although most studies support a positive relationship between entrepreneurship and economic growth, the results vary according to the methodologies, parameters, and contexts studied. The research has mainly focused on developed countries, leaving an open field of investigation for the MENA countries, which deserves an in-depth analysis for 2009-2022.

2. Methodology:

This econometric research investigates the relationship between nascent entrepreneurship and economic growth in the MENA region. The sample of this study encompassed 13 nations in the MENA region, specifically the United Arab Emirates, Morocco, Kuwait, Algeria, Oman, Tunisia, Egypt, Jordan, Saudi Arabia, Qatar, Bahrain, Turkey, and Iraq. Some nations were excluded from the study because statistical data was unavailable—the period used was from 2009 to 2022. The data was primarily obtained through the World Bank database, which ensured consistency and reliability across variables and nations. All estimation tasks are performed using the program "STATA" version 17.

The choice of the proxy that precisely reflects the creation of nascent startups is difficult due to the unavailability of data for the specified countries and the period considered. To assess the impact of nascent startup creation on economic growth, we thought it worthwhile to introduce the density of new entrepreneurial activities as a proxy for the level of nascent startup creation.

To closely examine the research problem, we selected the following variables:

- **Dependent Variable: GDP growth rate (Growth):** Measured as the annual percentage growth rate of GDP at market prices based on constant local currency.
- **Independent variables are:**
 - **Density of new entrepreneurial activities (Density):** a proxy for nascent entrepreneurship, measured as the number of new business registrations per 1,000 people aged 15-64.
 - **GDP per capita (current US\$).**
 - **Non-oil exports (NOILEXP):** Measured as a percentage of GDP.
 - **Manufacturing industry value added (Industry):** Measured as a percentage of GDP.
 - **Inward foreign direct investment (FDI):** Measured as a percentage of GDP.
 - **Economic openness rate (TRADE):** Calculated as the sum of exports and imports as a percentage of GDP.

The empirical investigation we conducted is founded on estimating the linear regression model outlined below:

$$Growth_t = \alpha + \beta_1 GDPpercapita_{i,(t)} + \beta_2 Density_{i,(t)} + \beta_3 NOILEXP_{i,(t)} + \beta_4 Industry_{i,(t)} + \beta_5 FDI_{i,(t)} + \beta_6 TRADE_{i,(t)} + u_{i,(t)} + \varepsilon_{i,(t)} \dots (1)$$

$u_{i,t}$ represents the individual effect, whereas ε_t represents the error term. The indices i and t correspond to the host country and year, respectively.

Various techniques are used to ensure our analysis's robustness, following the previously described equation. Descriptive statistics summarize critical features of the dataset, while correlation analysis checks for multicollinearity and the strength of relationships. We consider panel data regression methods for the principal analysis—pooled OLS, fixed effects, and random effects models. Diagnostic tests like the Breusch-Pagan and Hausman tests guide model selection. Tests for heteroskedasticity, autocorrelation, and multicollinearity (using VIF) are also conducted. Initially, pooled OLS was chosen, but Feasible and Generalized Least Squares (FGLS and GLS) were applied due to autocorrelation.

3. Data Description:

This study uses a panel dataset covering 13 MENA countries from 2009-2022. These variables include GDP growth rate (Growth), the density of new entrepreneurial activities (Density), GDP per capita (GDPpercapita), non-oil exports (NOILEXP), manufacturing industry value added (Industry), inward foreign direct investment (FDI), and economic openness rate (TRADE). To address issues related to normality and asymmetry, we applied a logarithmic transformation to all variables. Missing data points were estimated using the linear interpolation method to maintain the temporal structure of the data while minimizing potential biases.

Table 1 shows the descriptive statistics of all variables from 2009-2022. The Growth variable ranges from 0.51 to 1.63, with a mean of 1.15 and a standard deviation of 0.32. However, GDP per capita ranges from 7.70 to 11.49, with a mean of 9.32 ± 1.08 . Growth and GDP per capita standard deviations vary widely among the selected nations. The descriptive statistics show that MENA nations have weak economic growth and GDP per capita.

In addition, the table presents descriptive statistics regarding the density of new entrepreneurial activity and the volume of incoming FDI. MENA nations had low new company establishment and FDI attractiveness over the period.

Table 1: Descriptive Statistics of the variables

Variables	Mean	Standard deviation	Min	Max	Skewness	Kurtosis
Growth	1.150899	0.3215456	0.5113154	1.634674	-0.3749434	2.060487
GDPpercapita	9.328208	1.080788	7.701751	11.49314	0.2469621	1.628655
Density	-0.1659457	0.3060663	-0.5132071	0.3075339	0.3923714	1.546755
NOILEXP	2.776848	0.4626393	2.111166	3.39367	0.0964515	1.348591
Industry	3.690428	0.0816484	3.553945	3.823444	0.2600209	1.933095

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FDI	0.4358333	0.210736	0.0758789	0.8616575	-0.0331597	3.648372
TRADE	4.223386	0.3899449	3.121221	5.23647	0.2837209	2.426046

Source: The author has expanded upon the information provided.

Growth: GDP growth rate, Density: density of new entrepreneurial activities, GDPpercapita: GDP per capita, NOILEXP : non-oil exports, Industry: manufacturing industry value added, FDI: inward foreign direct investment, and TRADE : economic openness rate.

The table also displays the descriptive statistics for the variable Industry. The values span from 3.55 to 3.82, with a standard deviation 0.08. This finding indicates a minor disparity in the degree of industrialization. The data suggests that the industrialization range of nations in the study is approximately 3.69, which is close to the average. Non-oil exports have a range of values between 2.11 and 3.39. The average value is 2.77, with a standard deviation of 0.46. Table 1 shows skewness and kurtosis. Skewness and kurtosis values below 3 and 10 imply a normal distribution for the study sample (Kline, 2015).

The correlation matrix and multicollinearity test are in Table 2. The table shows that Growth negatively affects NOILEXP and Density. At 1% significance, this connection is significant. Industry has a strong and statistically significant positive correlation with Growth (1% significance level). At 10% significance, TRADE has a positive correlation. Table 2 shows no association coefficient exceeds 0.9 (Tabachnick et al., 2007). Multicollinearity is absent, indicating that the independent variables are not significantly associated. VIF test results below ten show that the independent variables are not multicollinear (Hair & al., 2010). The model's mean VIF, 2.84, is below 10, showing no multicollinearity.

Table 2: Correlation matrix and multicollinearity test

	Growth	GDPpercapita	Density	NOILEXP	Industry	FDI	TRADE
Growth	1.0000						
GDPpercapita	0.0311 (0.6764)	1.0000					
Density	-0.8850*** (0.000)	-0.0309 (0.7015)	1.0000				
NOILEXP	-0.4486*** (0.000)	-0.0215 (0.7734)	0.8950*** (0.000)	1.0000			
Industry	0.4867*** (0.000)	0.0772 (0.3004)	-0.5984*** (0.000)	-0.5975*** (0.000)	1.0000		
FDI	0.0383 (0.6076)	-0.0083 (0.9112)	-0.0495 (0.5394)	-0.0109 (0.8840)	0.1181 (0.1124)	1.0000	
TRADE	0.1337* (0.0720)	0.4982*** (0.000)	-0.1434* (0.0742)	-0.0785 (0.2920)	0.1814** (0.0143)	0.0158 (0.8325)	1.0000
VIF	-	1.37	5.21	5.87	1.99	1.20	1.42
Tolerance	-	0.730793	0.192020	0.170225	0.503569	0.833815	0.705697

*** p<0.01, ** p<0.05, * p<0.1

Source: The author has expanded upon the information provided.

4. Estimated model

A preliminary data analysis was performed to check the residuals' normality, the endogenous variable's linearity, and the model's specification. First, a normality analysis of the results was performed by applying the Doornik-Hansen test for multivariate normality (Doornik & Hansen, 2008). The $\chi^2(2)$ statistic is 0.859 with a probability of 0.6509 ($p > 0.05$). Thus, we conclude that the residuals are normally distributed. Then, a linearity test was performed to verify that the endogenous variable Growth is linear. By comparing the standard deviations of the endogenous variable and the residuals, we find that the standard deviation of the endogenous variable is greater than that of the residuals. Therefore, we conclude that the endogenous variable Growth is linear. Finally, a specification test was performed to verify that the model was correctly specified (Pregibon, 1980). The statistic was calculated, and the results show a statistic of 1.59, with a p-value less than 0.05, implying that the model, in general, and the independent variables, in particular, are correctly specified.

A Breusch-Pagan Lagrange Multiplier test (1980) evaluated the pooled OLS and random effects models to choose the best model. Table 3 reveals that the test's null hypothesis suggests no panel effects, indicating no significant national differences. The test showed no panel impacts since "chibar2" was not significant. A pooling OLS model is supported.

Table 3: Panel Effects Test

H0 : Absence of panel effects	Accept the null hypothesis (H0) that there are no panel effects at the 5% significance level.
Chibar2 (01) = 0.00	
P-value = 1.000	

Source: The author has expanded upon the information provided.

The Wooldridge Test assesses dataset error autocorrelation. The data in Table 4 disprove the null assumption ($p\text{-value} < 0.05$), showing incorrect autocorrelation. Thus, OLS coefficients may be biased, inconsistent, and inefficient.

Table 4: Error Autocorrelation Test

H0 : Absence of autocorrelation	Reject the null hypothesis (H0) when the p-value is less than 0.05, indicating the presence of error autocorrelation.
F(1, 12) = 2949.637	
Prob > F= 0.0000	

Source: The author has expanded upon the information provided.

Modified Wald Test: Heteroscedasticity can impact coefficient standard errors and t-values. The modified Wald test accepts the null hypothesis of identical error variance for all

individuals. If $p > 0.05$, the null assumption is accepted. It implies that everyone has the same error variance. Our p-value is below 0.05, so we can reject H_0 and infer no heteroscedasticity.

Table 5: Heteroscedasticity Test

$H_0 : \sigma_i^2 = \sigma^2 \forall i = 1, \dots, N$	Accept the null hypothesis (H_0) if the p-value is greater than 0.05, indicating the absence of heteroscedasticity.
Chi2 (17) = 673.90	
Prob > chi2 = 1.000	

Source: The author has expanded upon the information provided.

5. Discussion

The previous tests resulted in choosing the appropriate econometric model, the pooled OLS model, without specific panel effects. However, given the detection of errors' autocorrelation, it is preferable to estimate this model via the Generalized Least Squares method, specifically its Feasible Generalized Least Squares (Wooldridge, 2010). Based on the Prais-Winsten autocorrelation approach, this method accounts for error correlation structure. The two estimated models—pooled OLS, GLS, and FGLS—are shown in Table 6.

Growth is the dependent variable in Table 6, and GDP per capita, Density, NOILEXP, Industry, FDI, and TRADE explain it. The Ordinary Least Squares (OLS) model indicates that NOILEXP ($\beta=0.333$, $t=0.058$, $p=0.000$) and TRADE ($\beta=0.221$, $t=0.063$, $p=0.001$) positively affect economic growth at 1% and 5% significance levels. Conversely, Density significantly negatively impacts economic growth (Growth) at a 1% level ($\beta=-1.363$, $t=0.079$, $p=0.000$). Table 7 shows that the model's F-statistic is 135.91, statistically significant at 1%. The R^2 value indicates the extent to which independent factors (GDP per capita, Density, NOILEXP, Industry, FDI, TRADE) influence the dependent variable (Growth). Estimating the OLS model yields an R^2 value of 0.8455. This score indicates that the study's independent factors explain 84.55% of the dependent variable's variability.

Due to error autocorrelation in the pooled OLS model, we estimated the GLS and FGLS models to account for residual correlations. The results from this estimation were similar to those from the pooled OLS estimation. More specifically, NOILEXP and FDI positively and statistically significantly affect economic growth at 1%. However, the study found a significant negative impact of new business creation density on economic development at the 1% level ($\beta=-1.384$, $t=0.076$, $p=0.000$). The results of this model estimation dispute the idea that entrepreneurial density boosts economic growth. This result suggests that MENA startups do not stimulate economic growth. These findings support van Stel and Wong (2005) studies. This discrepancy may be due to differences in startup types and country development. According to Henrekson & al. (2022) and Hébert (2023), entrepreneurship can affect ecosystems differently depending on the country or region.

Rent income dominates most MENA economies. As a result, their private sectors predominantly engage in low-risk, low-value-added, and quick-profit activities, focusing on trade, housing, telecommunications, and financial services (El Kadi, 2020). This scenario impedes achieving structural transformation toward economies of scale and greater utilization

of sophisticated technology (El Kadi, 2020). According to Wong & al. (2005), enterprises with a high growth potential are more likely to stimulate economic growth. In addition, D'Andrea & al. (2023) and Audretsch (2018) have highlighted the importance of reevaluating existing policies and redirecting entrepreneurship support strategies. The aim is to identify and promote initiatives that not only boost the number of enterprises but also improve their quality, economic impact, and focus on high-value-added sectors (D'Andrea & al., 2023).

Our findings also support Henrekson & al. (2022) and Hébert (2023), which highlight the different effects of entrepreneurial initiatives on ecosystems. Rent-seeking dominates most MENA economies. Thus, their private sectors focus on commerce, housing, telecommunications, and financial services and are low-risk, low-value-added, and quick-profit (El Kadi, 2020). This paradigm hinders structural development toward economies of scale and advanced technologies (El Kadi, 2020).

Generalized Least Squares (GLS) model Wald statistic is 692.16, suggesting 1% statistical significance. The F-statistic for the FGLS model is 123.39, which is also statistically significant at 1%. R^2 is 0.8325, indicating that the independent variables explain 83.25% of Growth variability.

Table 6: Comparison of the OLS model, GLS model, FGLS model.

	OLS			GLS			FGLS		
	B	Std.err	P value	B	Std.err	P value	B	Std.err	P value
GDP per capita	0,0017382	0,0114975	0,88	0,0028633	0,0129	0,824	0,0029839	0,0134529	0,825
Density	-1,363595***	0,0790562	0,000	-1,382609***	0,0749344	0,000	-1,384889***	0,0765611	0,000
NOILEXP	0,3332611***	0,0585702	0,000	0,342203***	0,0533397	0,000	0,3431612***	0,0541768	0,000
Industry	0,0665541	0,1734042	0,702	0,0040697	0,1732499	0,981	-0,0041681	0,1778991	0,981
FDI	-0,0103112	0,0329843	0,755	0,2490825***	0,0571352	0,000	0,2521168***	0,579547	0,000
TRADE	0,221285**	0,0633302	0,001	-0,0151789	0,0367978	0,680	-0,0156858	0,0382953	0,683
constant	-0,322313	0,6978464	0,645	-0,1227066	0,6917079	0,859	-0,0958203	0,7095882	0,893

*** p<0.01, ** p<0.05, * p<0.1

Source: The author has expanded upon the information provided.

To conclude, calculating the GLS and FGLS models provided results similar to those of the Pooled Ordinary Least Squares (OLS) model. The TRADE positively and significantly affected growth in the Pooled OLS model but not in the GLS or FGLS models. In contrast, FDI had positive and statistically significant effects in the GLS and FGLS models but presented negative, although minor, effects in the Pooled OLS model.

Table 7: Significance Tests of Estimated Models

	OLS	GLS	FGLS
R²	0.8455	Non appliqué	0.8325
R² Ajusted	0.8393	Non appliqué	0.8257
	F(6,149) = 135.91	Wald chi2(6) = 692.16	F(6,149) = 123.39

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Model significance	Prob>F = 0.0000	Prob>chi2=0.0000	Prob>F = 0.0000
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Source: The author has expanded upon the information provided.

6. Conclusion

This study examines the impact of nascent entrepreneurship on economic growth through an empirical analysis conducted using an econometric model for 13 MENA countries. Our empirical study's results support entrepreneurship's negative impact on economic growth, invalidating the initial hypothesis. This result could be attributed to the disparity in the levels of development of countries as well as the types of startups that are created. In MENA countries, low-value-added and fast-returning entrepreneurial activities are often favored, thus limiting positive spillovers on economic growth. This dynamic is reinforced by the predominant rentier economic structure, which limits the incentives for innovation and the adoption of advanced technologies necessary for sustainable structural transformation. These findings highlight the need for specifically targeted economic and development policies to promote an enabling environment for innovative and diversified entrepreneurship in the MENA region. At the same time, our analysis has highlighted the importance of other factors in stimulating economic growth. Non-hydrocarbon exports, manufacturing value-added, inward foreign direct investment, and economic openness are significant drivers of growth in the MENA region.

We conclude this study by highlighting its main contributions, acknowledging its limitations, and exploring avenues for future research. By highlighting the critical importance of entrepreneurship for economic development and export diversification, it becomes imperative to create enabling environments for entrepreneurship when designing economic policies. States should actively adopt policies that promote entrepreneurship as a means to stimulate economic activity and encourage the creation of innovative startups.

For future research, we recommend broadening the scope of the study by including a more comprehensive range of countries and analyzing the relationship between entrepreneurship and economic growth while distinguishing between different types of productive and unproductive entrepreneurship, considering countries' levels of development and institutional factors. These may constitute significant barriers to the development of entrepreneurship and the creation of startups, requiring in-depth exploration in future studies.

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