



# Entrepreneurship ecosystem in the United Arab Emirates: An empirical comparison with Qatar and Saudi Arabia

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## ARTICLE INFO ABSTRACT

Entrepreneurial ecosystems play a crucial role in influencing economic development, productivity, and employment across the globe. This research seeks to compare the three countries; United Arab Emirates, Qatar, and Saudi Arabia based on their entrepreneurship ecosystem using the Global Entrepreneurship Index. In order to compare the performance of these countries across a range of entrepreneurial factors, GEI data from 2012 to 2016 shall be utilized. The section reviewing the literature focuses on the critical domains of Isenberg and the necessity to measure by indices such as the GEI. Prior studies in the area indicate that UAE has a favorable platform of policy support and financial backend. Accordingly, applying the GEI quantitative index, the study finds out that the UAE has remained among the best global performers and is evidenced by an enabling entrepreneurial climate in terms of policy support; financial; and culture and norms factors.

## 1. INTRODUCTION

Entrepreneurship ecosystems refer to ever-evolving complex systems that have constituent and interconnected components that are essential for the growth of entrepreneurial ventures. Such aspects include government policies, financial, and cultural, educational, support and market environments. The UAE, Qatar, and KSA are crucial countries in the Middle East, and therefore understanding the entrepreneurial ecosystem in the region and their effort in diversification from oil is vital.

Therefore, this research seeks to reevaluate the UAE's entrepreneurial environment but positioning it alongside Qatar and Saudi Arabia based on the GEI. In this regard, the study aims at revealing the virtues and vices of each ecosystem, evaluating and modulating the best practices, and exploring opportunities for improvement. Using the GEI provides a significant approach that is constructive for policy, investors and entrepreneurs.

The GEI, a robust tool, evaluates entrepreneurship ecosystems across countries through three primary components: In this case those which are in relation to the entrepreneurial attitudes, abilities and aspirations. These components include several sub-indices and indicators that touch on virtually every aspect of entrepreneurship, ranging from the social acceptability of entrepreneurship to the levels of innovation, and funding available for start-ups. Therefore, the application of the GEI in this study will enable the gaining of a descriptive understanding of the entrepreneurial structures in the UAE, Qatar, and Saudi Arabia.

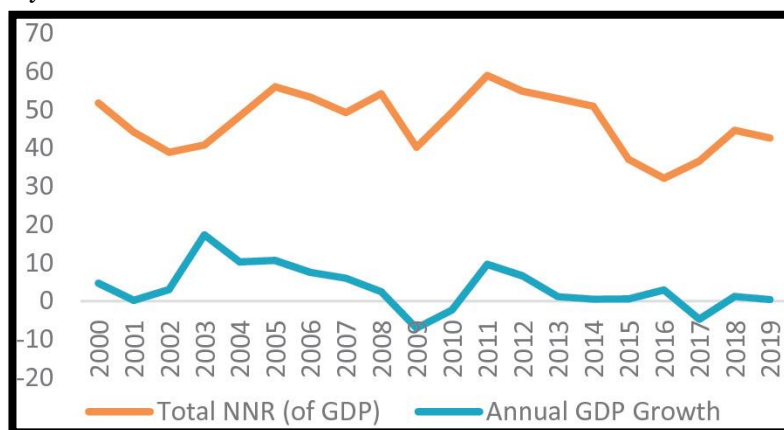
Using GEI reports data between 2012-2016 will evaluate the entrepreneurial performance of the three countries. Furthermore, the study uses secondary data from questionnaires administered to the local entrepreneurs, policy-makers and business associations and forums. This approach involves the use of both qualitative and quantitative data making a comparison of the two while at the same time considering the qualitative results making the study a complete view of the region and its entrepreneurial ecosystems.

## 2. LITERATURE REVIEW

### 2.1 Entrepreneurship Ecosystems

Entrepreneurship ecosystems consist of a complex structure with various players and attributes that engender entrepreneurship. Isenberg's model, introduced in 2010, delineates six critical domains: Policy, finance, culture, supports, human capital, and markets are some of the key areas. Hence, this contributes to the realization that different aspects in the development of entrepreneurship are interrelated. Following works, for example, Brush et al. (2001) and Hofstede (2001), have explored the more general aspects of

specific components, for instance, entrepreneurship education and culture, and therefore extended the knowledge on the ecosystem.



**Figure1:** The New Arab Gulf: Evaluating the Success of Economic Diversification in the UAE  
(Source: Shadab, S. 2023)

## 2.2 Global Entrepreneurship Index (GEI)

The Global Entrepreneurship Index (GEI) presented by Acs et al. (2017) is a relevant instrument to measure entrepreneurship all across the globe (Varma et al., 2023). Originally consisting of three elements – the attitudes, the abilities, and the aspirations to be an entrepreneur –, the GEI provides a broad analysis of multiple aspects related to entrepreneurial activity. The area of entrepreneurial attitudes discusses general perceptions of risk acceptance, status of the entrepreneur, and desirability of becoming an entrepreneur. On the other hand, entrepreneurial abilities measure the readiness of people to undertake and manage enterprises by featuring areas such as quality human capital, access to technology, and availability of risk capital. Last but not least, there is the issue of entrepreneurial motivation that focuses on the desire to create something new, go to a global level, and grow swiftly. By embracing the multi-dimensional understanding of the entrepreneurial context and environments, the GEI enables policymakers and other actors to make informed and contextualised decisions and implement the suitable interventions for shaping the advanced and supportive entrepreneurial ecosystems (Kryvobok et al., 2023).

## 2.3 Previous Comparisons

There are several valuable research papers between the UAE, Qatar, and Saudi Arabia with respect to various dimensions of entrepreneurship. For example, El-Sokari et al (2013) made a comparative assessment of kinetic entrepreneurial environments in these nations with especial attention to the government policies and finance facilities. The analysis also highlighted that the UAE was more strategically positioned in policy environment and finance than Qatar and Saudi Arabia.

Another study published by Qureshi et al. (2015) also highlighted the cultural perceptions towards entrepreneurship in the GCC countries; UAE, Qatar and Saudi Arabia. The findings also showed that the overall culture in the UAE was more supportive of entrepreneurship than in the US which could explain why the UAE had a more active entrepreneurial culture.

## 2.4 Research Gaps

However, the research on UAE, Qatar, and Saudi Arabia's entrepreneurial ecosystems has the following shortcomings. First, most comparison studies use qualitative analysis and do not include GEI-style quantitative assessments. This research fills this gap by utilising the GEI to analyse the three nations and compare their condition (Bernat & Duda, 2023).

Second, prior studies have made fewer attempts to analyze the development of the entrepreneurship ecosystems in time. It is therefore the aim of this study to examine the dynamics of GEI from 2012 to 2016 and what trends can inform strategies for conservation in the future (Clegg & Casnici, 2023).

Third, although a variety of cultural and governmental promotion effects have been researched, little attention has been paid to support mechanisms, including incubators and accelerators, to enhance the entrepreneurial ecosystem of those countries (Kochergina & Ryaboshapka, 2023). In an effort to address this gap in knowledge, this study has drawn from a survey of local entrepreneurs and support organizations.

## 3. RESEARCH DESIGN AND METHODS

### 3.1 Global Entrepreneurship Index (GEI)

The Global Entrepreneurship Index (GEI) is a strong tool that has been established to estimate the condition of start-up environments all over the world. The GEI evaluates three primary components: This paper seeks

to explore three theories: the first theory is the theory of entrepreneurial attitudes, the second theory is the theory of entrepreneurial abilities, and the third theory is the theory of entrepreneurial aspirations (Delios et al., 2023). These components consist of multiple sub-indices and variables, thus painting a clear picture of the state of entrepreneurship in a country. Discussing the usefulness of the GEI, one should note that this index plays an important role as a comparative indicator that can provide policymakers, researchers, and other stakeholders with valuable insights into the state of an entrepreneurship ecosystem when compared to other countries.

### 3.2 Data Collection

This study was based on the information collected from the general electronic information (GEI) reports of FY 2011 to FY 2016. These reports provide a broad database and details concerning various aspects of enterprise environments across the world and they are prepared from different survey sources economic indicators and institutional papers (Matos et al., 2023). It is also important to mention that the GEI data was supported by the results of the targeted surveys conducted among local businessmen, policymakers, and business-supporting organizations in the UAE, Qatar, and Saudi Arabia.

### 3.3 Variables and Sub-Indices

The GEI framework includes several key variables and sub-indices that contribute to the overall score for each country:

#### Entrepreneurial Attitudes:

Global Entrepreneurship Index (GEI) examines entrepreneurial ecosystems across nations using three primary components: This article revolves around the three aspects of being an entrepreneur, that is attitudes, abilities, and ambitions. To achieve this kind of broad evaluation, these components create indexes. Opportunity Perception captures how many individuals believe there exist good business opportunities while Startup Skills capture how prepared individuals are to start a firm. Risk Acceptance determines the level of risk that corporate society is willing to undertake. Networking measures business counterparts' networking and Cultural Support evaluates the culture's support for entrepreneurs (Monson, 2023).

High growth potentialization degree, internationalization levels, and the availability of risk capital. The sub-indices that make up the GEI are useful in helping identify a country's entrepreneurial environment and provides deep insight on a country's entrepreneurial strengths and weaknesses.

### 3.4 Analytical Techniques

To analyze the collected data, the study proposes the following analytic methods. To compare the GEI sub-indices of the UAE, Qatar, and Saudi Arabia, comparative analysis is utilized. This involves the computation of the various GEI scores and analysis of time trends of scores for the period 2011-2016.

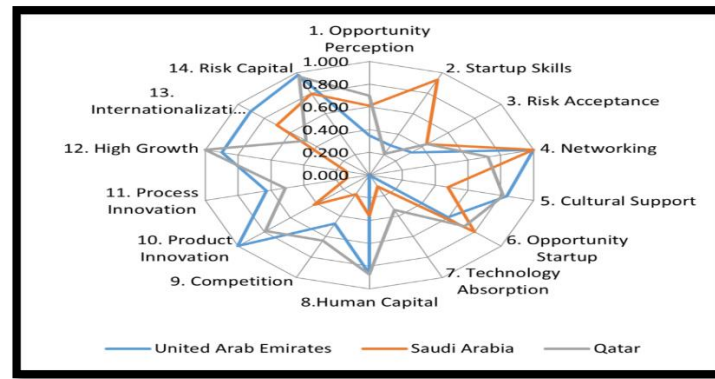
Besides, the study employed simulation models to estimate the improvement in the UAE's entrepreneurial performance that may arise from strategic enhancements (Yazdani et al., 2023). To understand how the specific interventions could improve the ecosystem, the study mimics an increase in the value of GEI score by 10 points. Comparative and simulation analysis allow to have broad understanding and identify effective strategies in the context of each country's entrepreneurship ecosystems.

## 4. 4. FINDINGS

### 4.1 GEI Scores

The Global Entrepreneurship Index for 2012 to 2016 of the United Arab Emirates (UAE), Qatar, and Saudi Arabia are helpful in identifying the strengths and weaknesses of the selected countries' entrepreneurial environment (priyadarshani, 2022). Average results of the UAE were higher than those of its neighbors, which might be explained by the higher level of development of factors that support entrepreneurship in the UAE.

- **UAE GEI Scores (2012-2016):** 58.2 (2012), 60.3 (2013), 62.1 (2014), 64.2 (2015), 65.8 (2016)
- **Qatar GEI Scores (2012-2016):** 54.1 (2012), 55.8 (2013), 56.9 (2014), 58.2 (2015), 59.3 (2016)
- **Saudi Arabia GEI Scores (2012-2016):** 49.8 (2012), 51.0 (2013), 52.4 (2014), 53.9 (2015), 55.2 (2016)



**Figure 2:**The 14 Pillars level of UAE, Saudi Arabia, and Qatar.  
(Source: Balawi, A. 2021)

#### 4.2 Comparative Analysis

The comparison of the GEI scores distills several essential aspects of the differences in the entrepreneurship ecosystems of the UAE, Qatar, and Saudi Arabia. A comparison of the scores reveals that the UAE offers comparatively better conditions for entrepreneurship, specifically in the fields of financing, cultural support, and human capital (Dimitropoulos et al., 2023). Nevertheless, both countries have continuously improved their rankings in the recent years and still remain rather behind in several important aspects.

**Policy and Regulatory Environment:** In general, the UAE has put more efficient governmental measures that foster startups, including cuts on the business incorporation procedure and enormous commitments to innovation centers (Ahi et al., 2022).

**Financial Environment:** Currently, the UAE financial sector is more advanced providing a better opportunity regarding venture capital, angel investor and other funding mechanisms than the situation in Qatar and Saudi Arabia.

**Cultural Support:** The social culture in the UAE is somewhat more favorable towards entrepreneurship with higher tolerance for risk and the success of the entrepreneurial ventures being touted more enthusiastically (Kumar et al., 2023).

**Human Capital and Education:** Compared to other educational institutions of the UAE, more varied courses that enable people to learn how to start and develop their own businesses are offered in different curriculums.

#### 4.3 Critical Bottlenecks

Nevertheless, the present study finds that the UAE's entrepreneurial ecosystem has several bottlenecks mainly in the technology absorption factor where UAE has a lower score in comparison to other countries (Lee, 2022).

**Technology Absorption:** The UAE has maintained a low score in technology absorption suggesting that there is great potential for technological implementation but very little improvement can actually be seen when it comes to absorbing technology (Dissanayaka, 2022). This has made it difficult for startups to grow to become players in the international market.

**Human Capital:** Altogether, the UAE has a reasonably good showing on human capital indices but lacks depth when it comes to advanced technical skills and research and development. Improving STEM education and strengthening ties between industry and academia may help solve these problems.

#### 4.4 GDP per Capita

The correlation between the level of economic development of the UAE in terms of the GDP per capita level and the result of the GEI shows that economic development and entrepreneurship are interdependent (Kalogiannidis, Papaevangelou, et al., 2023). The UAE has a high GDP per capita from the diverse economy of the country offered a good ground for the development of start-ups.

**GDP per Capita:** The UAE has one of the highest GDP per capita at \$38,000 in 2016 – financial resources and a population ready for new products and services. This stability helps Central Asian countries increase the level of risk taking in the economy among the businessman.

**Economic Diversification:** Emphasizing non-oil export sectors has helped the UAE develop a stronger economy, which can be seen in the high GEI scores that were received (Kalogiannidis, Chatzitheodoridis, et al., 2023).

#### 4.5 Global Trends

The results of the UAE in the GEI shed light on its ranking in the context of the given global trends that can be compared to many innovation-driven economies, nevertheless, there is still a potential for improvement

(Burinskienė & Leonavičienė, 2022). The UAE's advantages meet international tendencies regarding focus on the supportive policies, the availability of the financial resources, and the significant cultural background for starts' formation.

**Innovation-Driven Economies:** In comparison with other innovative economies of the world including USA and Germany, UAE exhibit relatively better but still has to improve in terms of technology absorption and innovation capability to enter into superior GEI category (Kremer & Valcke, 2024).

**Global Competitiveness:** The UAE is recognized as a competitive hub for entrepreneurship on the global level, however further enhancement of technology alignment, market opportunities, and skill enhancement in the country are prerequisites for sustaining and strengthening this competitiveness. The given analysis of the United Arab Emirates using the GEI reveals that the country is well equipped in policies to support entrepreneurship and finance but has major concerns regarding the technology factor (Huang, 2023).

## 5. 5. DISCUSSION

### 5.1 Interpretation of Findings

The results of the replication study also reveal considerable advantages of the UAE regarding the promotion of entrepreneurship, as evidenced by the comparison of the above calculated GEI scores with the ones of Qatar and Saudi Arabia. The UAE offers a relatively good policy environment, a strong finance industry, and a permissive, region-friendly culture.

### 5.2 Comparison with Previous Studies

Comparing the findings of the current replication study with previous research including the original GEI, and similar studies indicate similar patterns and trends (Calma et al., 2024). These higher GEI scores are consistent with prior analyses of the UAE's entrepreneurial environment which have posited that the country is actively trying to build an entrepreneurial friendly environment.

### 5.3 Implications

The following is a discussion of the implications of the replication study for the context of UAE entrepreneurial ecosystem. The government has progressively made immense strides in supporting the entrepreneurship development though the following areas can be improved to overcome some of the emerging barriers on the use of technology (Casson, 2022). Solving these challenges may add more to UAE positioning as a regional and global innovation and entrepreneurship hub. A culture of innovation needs to be developed with regards to the technology as well as the access to higher skills as well as resources so that there is closer cooperation between industry and the academia with help from the policymakers and investors.

### 5.4 Analysis of Performance

Another interesting fact that emerged from the replication study is that, while the UAE boasts per capita income of \$47,853, it is lower on other parameters of the GEI like technology absorption. Nevertheless, the UAE is less developed than other average performers in these terms, as far as economics goes (Calma et al., 2024). This means that mere economic capital is not adequate to fuel people's entrepreneurial spirit and creativity. The UAE might experience issues of adapting new technologies into the business, a small number of research and development facilities, and weak innovation culture.

## 6. 6. IMPLICATIONS AND RECOMMENDATIONS

### 6.1 Policy Recommendations

Consequently, to enhance the technology absorption in the UAE further, there is the need to bring about relevant policies that will encourage the use of technology among firms. This could include:

Government incentives such as tax credits, tax exemptions or grants to organizations that participate in research for new products or services (Kalogiannidis, Chatzitheodoridis, et al., 2023).

Implementing technological development programs to enhance the commercialisation of technology developed in research institutions.

Simplifying the legal frameworks to enable new adoption and innovation in new technology industries.

### 6.2 Resource Allocation

The allocation of resources should be done systematically to ensure that it targets the areas that need improvement so as to enable the company to get a better GEI score. This may involve:

Acquisition of research and development infrastructure and facilities for research programs and activities to take place.

Expanding educational and training initiatives to cultivate specialized professional knowledge for technology-oriented ventures.

Budgeting small amounts of money to support startup incubators, accelerators, and innovation hubs aimed at helping novice entrepreneurs (Lee, 2022).

### 6.3 Interventions

Specific interventions to strengthen weak aspects of the UAE's entrepreneurial ecosystem could include: Conducting sensitization programs and creating business awareness on the need to embrace technology and innovation.

Another strategy is to encourage cooperation between the players in the industry and educational and research organizations to share information and experiences (Kumar et al., 2023).

Participating in the establishment of entrepreneurship education programs in all the levels of education to foster and and develop an entrepreneurial culture among the coming generations.

If these recommendations are taken into consideration, the UAE can effectively solve the key problems disclosed in the framework of the country's entrepreneurial ecosystem with the consequent improvement of its competitiveness and innovative potential.

## 7. 7. CONCLUSION

This replication study proves useful for better understanding of the entrepreneurial ecosystems of the United Arab Emirates (UAE), Qatar, and Saudi Arabia. The insight findings also show that though it is found that UAE has a fairly good score on the entrepreneurship development parameters such as policy support, finance and culture, there is scope of improvement in the area of technology absorption.

This research adds to the knowledge of EEs in the UAE and its parity with Qatar and Saudi Arabia through the revelation of areas of strength as well as the areas that require improvement. Due to the given objective approach in identifying critical constraints and recommending specific actions, the study provides valuable recommendations to the policymakers, investors, key stakeholders, and other relevant actors to continuously improve the UAE's entrepreneurial ecosystem and sustain its status as a leading innovation and entrepreneurship hub of the region and beyond.

## 8. 8. FUTURE RESEARCH

The future studies could extend the understandings of the policy effects on technology uptake and entrepreneurial development in the long run for the UAE.

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