



كلية الآداب والعلوم
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Gulf Studies Center

Moving Towards a Knowledge-Based Economy in Qatar: What Is Needed To Enable ICT, Education, Innovation and Entrepreneurship?

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Gulf Insights Series
N° 13 – November 2019

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Introduction

The hydrocarbon sector is the cornerstone of Qatar's economy. However, with Qatar's National Vision 2030, the country aims to diversify its economy and transform it into a Knowledge-based economy (General Secretariat for Development Planning (GSDP), 2008). Since 1995, Qatar has invested a significant amount of budget to improve information and communications technology (ICT), education, innovation and entrepreneurship, which were confirmed by the rankings published by different international organizations. According to Mishrif (2018), the pace of economic planning and implementation in Qatar is much faster than any other GCC member state. However, developing a knowledge-based economy is not an easy process, particularly in a small country such as Qatar, and there is a need to address a number of issues by adopting the right policies (Ben Hassen, 2019).

The term knowledge-based economy describes the trends in advanced economies toward a greater reliance on knowledge, innovation, and highly skilled human resources (OECD, 1996). Powell and Snellman (2004, 199) defined the knowledge economy as: "...production and services based on knowledge-intensive activities that contribute to an accelerated race of technological and scientific advance as well as equally rapid obsolescence." As a multidimensional concept, significant research has been accomplished on the concept of knowledge-based economy (KBE) and its measurements.

A common denominator in many KBE perspectives is that ICT, education, innovation, entrepreneurship and economic and institutional regime are central elements (Arundel et al. 2008).

In this context, the department of International affairs and the Gulf Studies Centre in Qatar University organized on October 27 and 28, 2019 in Qatar University a conference titled: "Moving Towards a Knowledge-Based Economy in Qatar: What Is Needed To Enable Innovation, Entrepreneurship And Education". The main goal of this scientific conference was to bring together leading researchers and stakeholders from a range of disciplines to discuss and share the most recent research outcomes and international best practices regarding the constitutive dimensions of the knowledge-based economy namely ICT, innovation, education and entrepreneurship. This insight aims to present the main outcomes of the conference as well as to provide recommendations and tools to the Qatari decision makers on how they can best strengthen the knowledge-based economy in Qatar in order to nurture the process of diversifying Qatar's economy as planned in Qatar National Vision 2030.

What Is Needed to Enable ICT, Education, Innovation and Entrepreneurship in Qatar?

As mentioned above, Qatar has devoted a significant amount of its annual budget to invest in ICT, education, innovation and entrepreneurship. However, Qatar

needs to address a number of issues by adopting the right policies. At the ICT level, Qatar must continue to address barriers such as high ICT costs and the need for more advanced ICT knowledge and skills across all demographic groups (Ministry of Transport and communication, 2014). Moreover, the ICT industry in Qatar is still mainly import dependent. Few ICT enterprises are involved in manufacturing ICT products (Ministry of Transport and communication 2016). Hence, it is recommended to develop an effective ICT strategy to reform the sector, to boost the creation of new startups and to strength the existing ones by focusing mainly on facilitating the access to finance. It is also recommended to encourage more “local ICT content” in the projects built in Qatar, such as the World cup projects, the development of smart cities such as Lusail, etc.

As highlighted in the last World Economic Forum (2017), Qatar is ranked 37th worldwide for the quality of its higher education system. However, only few Qatari students are interested to pursue a career in the science, technology, engineering and mathematics (STEM) field, while a large number remains attractive to jobs in the public sector. It is recommended to develop a specific strategy to attract more students to STEM fields by improving the quality of scientific and technical education in primary and secondary schools across the country. In addition, in order to reduce the incompatibility between the skills needed by the job market and the outputs of the education and training system, it is recommended to connect education and employment needs by creating cooperative education schemes delivered in partnership with employers.

At the innovation level, it is recommended to strengthen the

innovation system in Qatar by focusing on the most challenging issues such as water scarcity, food security, and health through the adoption of an effective innovation policy that supports innovators and offers them technical, commercial and financial support. The policy should also foster cooperation between universities and companies to strengthen the local R&D capacity.

At the entrepreneurship level, entrepreneurs in Qatar are still facing some challenges including but not limited to funding, lack of affordable and efficient support structures such as office space, professional infrastructure (e.g., suppliers) or physical infrastructure (Global Entrepreneurship Monitor (GEM), 2016). Furthermore, due to the fact that Qatar is a rentier state, careers in the public sector are much more attractive, better paid and less onerous than those in the private sector (Forstenlechner and Rutledge 2010). This reduces incentives for Qataris to take the risk in becoming entrepreneurs. Consequently, it is recommended to reform the legal and regulatory framework by making it more startup “friendly”. Additionally, there is a need to encourage more foreign residents in the country to be entrepreneurs and to ease the regulations for sponsorship. In addition, Qatari government needs to develop the education system by introducing courses and degrees on entrepreneurship. Such initiative would have a positive impact in promoting a culture of entrepreneurship as well as would lead to an improvement in management quality of small and medium-sized enterprises (SMEs) (MERatings, 2019).

At the economic and institutional regime level, Qatar performs below expected compared to other high-income countries, particularly in the areas of institutions performance, market sophistication and business

sophistication (Osman 2015). The report “Doing Business” (2019) cites the complex registration process to start a business in Qatar, which is ranked 77th for the ease of doing business ranking and 91st for Starting a business, out of 190 states (World Bank, 2019). To make an effective transition to the knowledge-based economy in Qatar, it is necessary to continue to improve the business environment by facilitating the emergence of entrepreneurial activity, reducing bureaucracy and eliminating regulations that inhibit entrepreneurship.

Conclusion

As a conclusion, two opposite conditions shape the development of the knowledge-based economy in Qatar: the rentier state model and the determination of the Qatari government to diversify the economy. Indeed, the knowledge-based economy is largely a result of strong state intervention. However, despite this determination to diversify the economy, the country needs to address a number of issues by adopting the right policies. Some of these issues are tightly related to the socio-economic nature of Qatar as a rentier state.

Meanwhile, the strong implication and determination of the Qatari government to diversify the economy, to boost innovation and R&D and to create a vibrant entrepreneurship ecosystem, confirm, as highlighted by Gray (2011), that the Rentier State Theory (RST) is not adapted enough to explain the dramatic changes in the political economies of the Gulf in the past two decades. In the Rentier State Theory, the state has a limited interest in diversifying the economy and supporting non-rent sectors (Beblawi, 1987). However, under the combined

effects of globalization, new technologies, freer trade and investments, social changes, and development imperatives, economic diversification and the knowledge-based economy become the focal point of the economic strategies agenda in the Gulf countries since the 1990s (Hvidt 2013). Gray (2011) argued that a new phase of RST—“late rentierism”—should be applied to the GCC countries.

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