

From Oil to Knowledge: Transforming the UAE into a Knowledge-Based Economy

Allam Ahmed¹ and Ibrahim Alfaki²

¹Director of the Middle Eastern Knowledge Economy Institute (MEKEI), Brighton, UK

Allam.Ahmed@sussex.ac.ae

²Associate Professor, College of Business and Economics, United Arab Emirates University

i.abdalla@uaeu.ac.ae

Book Published by Greenleaf Publishing, UK

Fluctuating prices and over-reliance on oil challenge the long-term sustainability of an economy. Research presented in this book critically examine and evaluate the extent of the United Arab Emirates success in diversifying its economy and implementing the principles and approaches of a knowledge economy. The book starts by providing an in-depth and critical review of the literature and theories on knowledge and knowledge management (KM), as well as the concepts and approaches relating to the Knowledge-based Economy (KE). In doing so, several sources have been reviewed and consulted including various mainstream refereed journals focusing on KM, change management, management, human resources management, social science, strategy, science, technology, innovation, etc., as well as books, online databases, governmental reports and statistics.

A strategic goal of the UAE's diversification strategy is the expansion of the non-oil sectors to enhance the country's economy and enable it to compete with emerging markets. The UAE vision 2021 and the federal strategy 2011–2013 advocate the increase of investment in science and technology and R&D with the aim of turning the economy into a Knowledge Economy (KE). This requires the adoption of strategies aimed at building local capacity, reducing dependence on foreign technologies, improving competitiveness and intensifying domestic manufacture, and the production of technology products and equipment to serve both domestic and international needs. Recent statistics reveal that the UAE manufacturing productivity and its contribution to the GDP has increased slowly over time. However, the extent to which the current diversification levels towards the manufacturing sector are minimizing reliance on the oil sector needs further investigation. When synchronizing the manufacturing sector with the oil sector, evidence reveals that 66.7 per cent of output gaps in the two sectors have the same sign, signifying a high level of dependence of the manufacturing sector on the oil sector. However, as revealed by trend analysis, this dependence is decreasing over time, and the manufacturing sector is showing an independent growth away from the oil sector. This growth, however, is pushed by the growth of mainly labor-intensive activity and is therefore dependent on production processes that employ low technology levels. Notably, UAE technology production is suffering a great deal as a result of the country's high dependence on imports of technology and technology products, creating a huge imports-exports balance of payments deficit. Nonetheless, trivial growth in technology exports has been reported recently (post-2000) and is mainly attributed to increasing development in the country's technological infrastructure and insignificantly attributed to increased levels of inward foreign direct investment (FDI).

The book further investigates the role of Science, Technology and Innovation (STI) and examines the impact of Information and Communication Technologies (ICTs) and education on improving the technological readiness in UAE and transforming the country into a KE. Apparently, the UAE has made important progress in the Global Competitiveness Index (GCI) in the last few years particularly at the macro-economic environment and quality of infrastructure levels, notably the ICT sector. Empowering the nation with education and ICTs would increase productivity and competitiveness of UAE worldwide. However, the country is still lagging behind most transformation economies and facing considerable challenges with regards to technological readiness. This hurdle impeded the country's ability to absorb, adapt and create new technology and knowledge. As a result, the country's economy is experiencing a negative trade balance in foreign technology transfer. The comparative and situational analysis methodology adopted in the context concluded several lessons and policy remarks: The UAE needs to increase its investment in education and R&D activities by increasing public expenditure, at least to match industrialized nations' minimum level, and by encouraging more private sector contributions. Investment in the education and the R&D sectors should be coupled with strategic reforms that ensure aligning learning and research outcomes to meet labor market demands and KE requirements. Particular focus should concentrate on strengthening technical and vocational training and revamping of curricula, particularly, at the higher education level, where learning outcomes should emphasize promotion of critical thinking skills together with creativity and problem-solving capacities. This is instrumental in providing high-skilled professional workforce to counter act the current mismatch in supply and demand in the country's human resources. It is also instrumental in providing R&D manpower required to improve the country's ability to adapt and assimilate new technologies and to develop an innovation base. UAE investment in knowledge inputs would benefit the country's competitiveness standing and would increase its chances of achieving sustained productivity growth as a result of increasing the indigenous innovation and the domestic value added of its goods and exports. Overall, the country's commitment to transitioning to a KE is receiving the required political backing and is further supported by availability of significant financial resources and wealth that can play proactive part in realizing the KE vision. The key to achieving sustainable economic growth and stability, however, hinges on the optimal utilization of these assets in production and development, embracing the KE fundamentals and promoting entrepreneurship, innovation and global competitiveness.

The book additionally presents critical analyses of various international case studies from various organizations that have undertaken major KM transformation projects within their boundaries. In addition to providing a brief critical evaluation and identification of various elements of relevance to UAE in each case.

Finally, the book has shed light, with some details, on the Abu Dhabi Government (ADG) Department of Municipal Affairs (DMA) Major Knowledge Management Project - first of its kind in Abu Dhabi and the Middle East - ***"Musharaka - Excellence through Knowledge"*** focusing on empowering employees to enable improvement of quality and efficiency of provided services.

Musharaka aims to enable employees to acquire and share information and international best practices, create creative and up to date methods for communication, exchange of knowledge and experiences, promote their functional performance, increase their productivity and enhance provided services. ***Musharaka*** is considered by the government of Abu Dhabi as the first of its kind transformation project changing employees' culture in the government of Abu Dhabi.