

# LOCALISATION OF KNOWLEDGE IN GCC COUNTRIES: THE CASE OF SMEs

**Amer Al-Roubaie\* and Muneer M. S. Almubarak**

College of Business and Finance,  
Ahlia University, Bahrain

Email: aalroubaie@ahlia.edu.bh  
Email: malmubarak@ahlia.edu.bh

## ABSTRACT

**Purpose:** Localisation of knowledge is among the important challenges facing Gulf Cooperation Council (GCC) countries. Knowledge is a key driver of modern economies impacting productivity, employment, wealth creation, poverty reduction and technology diffusion. Building capabilities for knowledge localisation entails appropriate business environments, effective institutions, skilled workforces and sound infrastructure. The role of Small and Medium Enterprises (SMEs) is critical in building capacity for knowledge localisation and fostering economic growth. The aim of this paper is to shed some light on the contribution of SMEs to knowledge localisation in GCC countries.

**Design/Methodology/Approach:** This paper uses descriptive and analytical methods to examine the contribution of SMEs to knowledge creation in GCC countries. Data used in the paper are drawn from the existing literature on SMEs and from data published by national and international institutions.

---

\*Corresponding author

**Findings:** Published literature provides a substantial amount of information about the role that SMEs plays in knowledge creation and productivity growth. Our findings also reveal the important contribution of these enterprises to knowledge creation and knowledge localisation in GCC countries.

**Research limitations/implications:** Accurate data about the share of SMEs in market activities remain inadequate in GCC countries. The public sector is still dominant in most of these countries, reflecting government control over the economy. Large family-owned conglomerates distort the competitive landscape, especially in GCC economies.

**Originality/value:** The originality of this paper lies with the discussion on knowledge localisation in GCC countries. It highlights the importance of the indigenous knowledge system in building capacity for development.

**Keywords:** Knowledge Localisation; SMEs; Globalisation; Human Capital; Development; GCC countries; innovation; entrepreneurship.

**Reference** to this paper should be made as follows: Amer Al-Roubaie and Muneer M. S. Almubarak (2017) 'Localisation of Knowledge in GCC Countries: The Case of SMEs', *Middle East Journal of Entrepreneurship, Leadership and Sustainable Development*, Vol. 1, No. 1, pp.001–015.

---

## INTRODUCTION

In the literature on business studies, the contribution of Small and Medium Enterprises (SMEs) to national economies has been widely recognised, making these businesses among the important economic players in creating employment opportunities, promoting innovation and fostering economic growth. In the new economy, knowledge creation, information dissemination and innovation diffusion are key drivers in economic diversification and global competitiveness. SMEs contribute to economic development through production of goods and services, research and development, knowledge creation and technology diffusion. In highly competitive markets, the survival of SMEs entails investment in research and development and in innovation aimed at creating new technologies and developing new knowledge. In small economies, such as Bahrain, SMEs could play a leading role in knowledge localisation and deepening integration in the global economy. In the knowledge economy, the role of the public sector is to facilitate economic development by providing the necessary infrastructure to increase market flexibility and maintain confidence in the economy. In view of the recent socio-economic challenges facing the Middle East, restoring economic confidence in the economies of the region is essential for strengthening market flexibility and enhancing productivity.

Most countries in the Middle East and North Africa (MENA) region are characterised by low productivity and high levels of unemployment, particularly among the youth and new graduates. In recent years, due to population growth and a rapid increase in the rate of women's participation in the labour market, pressure has been mounting on governments to develop and diversify the economy's structure. For several decades, economic development in the Middle East has been influenced by policies and projects financed by public sector, with little contribution from the private sector. It is estimated that the private sector in the region of the MENA represents 15% of the total investment in the economies of these countries. This reflects low involvement of local entrepreneurs in the production of goods and services, contributing very little to job creation and knowledge dissemination (Singh, 2005). In the case of Gulf Cooperation Council (GCC) countries, labour mobility could become an important mechanism for knowledge diffusion. In this age of digital technologies, SMEs can increase linkages across the region to strengthen knowledge sharing and exchange of

information. Small countries may not have adequate skills to conduct research and implement projects unilaterally; however, gaining access to resources in other countries will facilitate the country's capabilities to create knowledge and diffuse technology.

Production in the new economy involves greater participation by private enterprises to create linkages and promote innovation. The nexus of effective use of policy and skill acquisition has been effectively used to strengthen the fundamentals for knowledge localisation and technology diffusion. Globalisation is offering new opportunities, particularly for developing countries, to harness the benefit of existing knowledge and cultivate the fruit of the digital revolution. In the case of small countries, such as Bahrain, the small size of the economy and lack of natural resources imposes constraints on economic development by limiting the ability of the economy to grow beyond a certain limit. In contrast, the knowledge economy, making more effective use of limited financial and natural resources endowment of the country, in effect expands the product possibility frontier beyond the bounds feasible in the context of the old economy. In this regard, economic convergence will require harnessing the creative minds of people through the establishment of market-supporting institutions. An effective strategy for promoting SMEs, recognising the vital role they play in the new economy, should be implemented.

The aim of this paper is to shed some light on the role that SMEs play in building capacity for knowledge localisation in GCC countries. Knowledge production and application are among the important building blocks of the knowledge economy. Knowledge localisation underscores the importance of education to prepare young people to become entrepreneurs capable of taking on the mantle of economic leadership, with a view to fulfilling the collective aspirations of their nations. Thus, policies in these countries should be designed to strengthen knowledge creation and innovation diffusion in order to foster economic growth and sustain development. The emphasis in this paper is accordingly focused on the contribution of SMEs as means to facilitate both knowledge localisation and economic conversion.

## THE ARAB ECONOMIES

In most Arab countries, the public sector exerts substantial influence over market activities, providing few incentives for private enterprises to seek investment and finance projects that generate linkages to stimulate local markets. Private investment accounts for about 15% of total investment in Arab countries, reflecting the low contribution of private enterprises to the market economy. By 2030, it is estimated that the Arab countries will need to create 100 million jobs to meet labour market demand requirements. What is needed is to diversify the productive structure by reducing the share of oil production in total output. Moving away from a predominantly natural resource-based economy would serve not only to create more wealth, but also to meet the challenges of rapid population growth by creating new employment opportunities. In most oil producing countries, oil operations have reached their limits; there is little or no prospect of expanding market activities sufficiently to absorb the projected demand for jobs on the part of rapidly accreting labour forces in these countries. As pointed out by United Nations (UN):

“Oil-led growth has created weak structural foundations in Arab economies. Many Arab countries are turning into increasingly import oriented and service-based economies. The types of services found in Arab countries fall at the low end of the value adding chain, contribute little to local knowledge development and lock

countries into inferior positions in global markets. This trend, which has been at the expense of Arab agriculture, manufacturing and industrial production, is therefore of concern." (United Nations, 2009, p. 103).

Over the last few decades, economic development in the Arab world has been financed by revenues from the production and export of hydrocarbons, mainly oil and gas. No serious efforts were made by governments in the region to diversify the economic structure and reduce dependency on the export of raw materials. This reflects the failure of these countries to foresee future trends and construct strategies seeking to hedge the risk of price fluctuations and reduce instabilities in export earnings. The share of oil and revenues has consistently accounted for more than half of the Gross Domestic Product (GDP) and more than two thirds of foreign export earnings in most oil producing countries in the region. Until the advent of non-conventional fossil fuel, in North America at least, the monopolistic nature of the global energy production and distribution has given cartelised oil exporting countries strong leverage over energy prices. In addition, the BRICK countries (Brazil, Russia, India, China and South Korea) have been important drivers of the demand for energy in the international markets, with such demand waxing and waning in parallel with upward and downward spikes in GDP growth experienced collectively by BRICK economies. In the past 15-20 years, oil prices have been linked to the growth rates in the economies of China and India, making energy demand in these countries a critical factor in sustaining high global oil prices.

Labour market flexibility and human resource development are vital for the increasing of the supply of knowledge workers. In particular, labour markets in GCC countries depend heavily on expatriates to satisfy domestic as well as foreign firms' demand for labour. The demand for expatriates is largely due to the productivity and quality of skills these workers exhibit. Nationals seem to lack the key skill sets essential to compete with foreign labour. Lack of competencies and shortage of skills could become the greatest obstacle impeding the transformation of natural resource-based into knowledge-based economies in the Arab world. Restructuring the educational system to address the labour requirements of incipient new economies needs to be accorded top priority by governments in the region in order to speed up the process of development and catch up with the industrialised countries (Al-Roubaie, 2008).

Half of the world proven oil reserves is located within the geographical boundaries of the Arab world and almost three-quarters of government expenditure in the Arab countries comes from revenues generated from oil and gas exports. High dependency on these exports not only subjects these country's economies to a high degree of instability, but also weakens the creation of strong backward and forward linkages to stimulate economic activities within various sectors of the productive structure. The dual nature of the oil economies, characterised by the isolation of the rest of the economy from the leading export sector, in effect stymies the spillover effects of the oil operations on the rest of the domestic economy. Most output produced by the oil industry is directed towards the importation of consumer goods and luxury products.

The rate of population growth in the Arab world is among the highest in the world, reflecting the fact that the number of people who will be looking for work is expected to increase substantially in the coming years. Population in the Arab world increased from 150 million in 1980 to about 400 million at the present. About 60% of the total population in the Arab region is less than 25 years of age, making the region the most youthful among all regions of the world. Currently, the urban population in Arab countries is about 60% of the total population: this is compared to about 42% in 1975. By 2020, it is estimated that Arab countries need to

create 51 million new jobs. Arab countries' focus should be directed at expanding the role of the private sector, including SMEs, to support the creation of these jobs (World Bank, 2015).

For their part, and through its budget, the government allocates oil revenues to expenditures on various services; these include payments to public sector employees, the bulk of whom are nationals. As a consequence of the inability of the non-energy sector of the economy to meet local demand for consumption and luxury products, income allocated to local nationals in the form of wages, salaries and other transfer payments is rechannelled into the global economy to pay for imported goods. Similarly, governments in the region spend substantial sums of public funds to subsidise domestic consumption (although to a decreasing extent as subsidies get progressively pruned by economically pinched governments of energy exporting countries in the current prevailing wave of low global energy prices). In particular, local nationals (more so than expatriates) have reaped benefits including housing, food, fuel, electricity and water subsidies, and below-market-rate-of-interest loans. In general, subsidies disincentivise work while distorting prices, discouraging efficient investment hobbling entrepreneurship. Business in these countries is not market oriented to encourage competition and innovation.

Table 1 illustrates the ranking of GCC countries in relation to readiness for building a knowledge-based economy. Bahrain is ranked third among Arab countries, reflecting the country's capabilities in advancing the role of knowledge in development. The high value of indices, including e-Government, knowledge economy index and Information and Communication Technologies (ICT) development index, outlines government initiatives to create an enabling environment for knowledge localisation. The environment represents an integrated element of a national system in which political, educational, social, technological

**Table 1 Arab e-Performance Index 2013–2014**

<i>Rank</i>	<i>Country</i>	<i>GCI</i>	<i>IDI</i>	<i>GII</i>	<i>KEI</i>	<i>e-Government</i>
1	UAE	72.86	64.1	41.87	64.9	73.44
2	Qatar	77.14	65.4	41.00	58.4	64.05
3	Bahrain	65.71	63.0	36.13	69.0	69.46
4	KSA	74.29	56.9	41.21	59.6	66.58
5	Oman	67.14	53.6	33.25	61.4	59.44
6	Kuwait	65.71	50.0	40.02	53.3	59.60
7	Jordan	60.41	42.2	37.30	49.5	48.84
8	Lebanon	55.71	53.7	35.47	49.5	48.84
9	Tunisia	63.86	37.0	35.82	45.6	51.39
10	Egypt	52.86	38.5	28.48	45.6	48.33
11	Morocco	58.87	37.9	30.89	37.8	46.11
12	Algeria	52.86	30.7	23.11	36.1	42.09
13	Syria	55.00	32.2	23.73	37.9	36.08
14	Yemen	42.86	18.9	19.32	19.2	24.72

*Source:* Arab Knowledge Economy Report 2014: MADAR Research and development, Dubai (GCI: Global Competitiveness Index; IDI: ICT Development Index; GII: Global Innovation Index; KEI: Knowledge Economy Index; e-Government: e-Government Development Index) [www.madarresearch.com](http://www.madarresearch.com)

and several other elements interact or communicate to strengthen the economy's capabilities to create and use knowledge. In this regard, enabling the environment for knowledge localisation involves the acquisition of skills on the one hand and the existence of the environment that utilises these skills and competencies on the other. The information provided in Table 1 shows that Bahrain has taken serious initiatives to build a knowledge economy by making progress on all e-performance indices. Encouraging young people to become entrepreneurs will depend on the ability of the education system to provide them with the necessary skills and on the ability of the government to create an adequate environment in which these skills are fully utilised.

### **SMALL AND MEDIUM ENTERPRISES (SMES)**

Small and Medium Enterprises (SMEs) play an important role in market activities at both the local and international level. SMEs contribute to increasing employment opportunities, as well as stimulating business activities via linkages creation and productivity growth. At the global level, it is estimated that SMEs account for about 95% of the total number of enterprises currently involved in global production and are responsible for 60% of the labour force employed by the private sector. In the case of Japan, which represents the third largest economy in the world, 95% of its output is produced by economic agents classified as SMEs. In India, almost 80% of the total output is produced by SMEs, representing about 13 million enterprises. Similar trends exist in all countries worldwide, reflecting not only the important contribution of SMEs to the development of nations, but also the economic potential that these enterprises have on future development, especially in developing countries (OECD, 1997).

The inability of the public sector to meet the challenges facing Arab countries, including low productivity, rapid population growth, urbanisation, lack of diversification, inadequate skills and weak innovation systems, highlights the need for further private sector participation in the economy. The new knowledge-based economy, entailing the participation of all economic agents, involves the building of productive capacity to strengthen a people's capabilities and to increase the contribution of individuals to knowledge creation and technology diffusion in society. The knowledge economy creates new ideas and creative thinking that enables society to create new techniques and develop new products that meet international standards and deepen integration in the global markets. In the Arab world, increasing global competitiveness will require the cultivation of tacit knowledge embodied in people and make use of this to support the building of productive innovation systems capable of fostering economic growth and sustaining development.

The role SMEs play in the development of Arab economies could have a substantial impact on reengineering the economic structure, promoting economic diversification and reducing dependency on global markets. SMEs' contribution to GDP varies among countries, depending on existing policies and the involvement of the public sector in the economy. In most developing countries, including the Arab world, the share of the private sector in total investment remains low to support active participation of private enterprises in the domestic economy. In the new economy, enterprises must compete by producing high-tech products and knowledge-based services. Under such circumstances, more private enterprises should be encouraged to permit the economy to take advantage of the new global markets and to deepen integration in the global economy. In this regard, organisations will be able not only to absorb knowledge within their geographic and technological proximity, but also to adapt to changing environments, that is access to external knowledge will help SMEs to overcome the localisation of learning (Wagner et al., 2013).

SMEs exhibit efficient operations and specialisation. Modern organisations use knowledge in production as a powerful input to gain comparative advantage and compete in the global markets, that is knowledge creation, research and development, human capital and innovation occupy the centre of organisational strategy for future growth. A sound strategy not only harnesses incentives designed to create knowledge that comes from within the organisation, but also encourages the acquisition of knowledge and skills from external sources with a view to effectively enhance productive operations. SMEs have the capacity to focus selectively on the production of specific products – a concentration of effort that helps companies to develop new methods and invent new techniques that facilitate efficiency and more competitiveness. In addition, SMEs put a premium on increasing the stock of human capital through investment in training and learning-by-doing to create value and encourage innovation.

In 2010, it was estimated that there were 4,488,767 SMEs across the regions of the Middle East and North Africa. According to the Arab competitiveness report 2011–2012, among the important impediments of doing business in the Arab world are lack of access to financing, inadequately educated workforces, inefficient government bureaucracies, poor work ethics among the national labour force, corruption, inadequate supply of infrastructure, policy instability and foreign exchange regulations (World Economic Forum, 2011). Providing greater incentives for SMEs to participate in the economy will, therefore, require the removal of these impediments. For several decades, economic development in most Arab countries has been heavily dependent on government expenditures financed mainly by revenues from oil and gas exports. This dependency has hobbled economic growth by limiting the contribution of the private sector to the development of the economy. As a consequence, the number of people looking for work increased due to the rapid growth in population, compounded by the increasing participation rate of women in the workforce. According to the International Monetary Fund (IMF), 86% of total employment and about 60% of non-oil GDP in United Arab Emirates (UAE) is attributed to the work of SMEs. The number of SMEs in the entire economy of the UAE accounts for 300,000 establishments, or 92% of the total number of businesses (IMF, 2015).

Currently, youth unemployment in the Arab world is about 30%, the highest among all world regions.

“In this context, the Arab region is in need of economic growth that is based on a vibrant and growing private sector if it is to attain durably higher levels of gainful employment: only the private sector can create a sufficient number of jobs in a sustainable manner.” (World Economic Forum, 2011).

The small size of the market and low level of diversification have discouraged SMEs from the incentives needed for doing business in the market place. As pointed out by the United Nations (UN), “Most Arab countries have experienced significant deindustrialisation over the last four decades. In fact the Arab countries were less industrialised in 2007 than in 1970, almost four decades ago” (United Nations 2009, p. 103).

Among the important advantages of SMEs is job creation, especially in regions such as the Middle East where unemployment has become among the most important challenges facing the region. Currently, SMEs account for about 30% of all private sector employment in the MENA region, which is low compared to other regions in the world. This low private sector employment is attributed to the dominance of the public sector, as well as high degree of business concentration in a few influential families linked to people in power. Furthermore, a low level of diversification and duality of the economic structure have left the private sector

with few opportunities to participate in the economy. In most oil producing countries, heavy dependence on the production and export of oil has weakened linkage creation, providing disincentives for the private sector to actively participate in market activities. For their part, governments in the region provide their small population with most of the essential goods and services through foreign enterprises, rendering toothless local SMEs striving to compete against foreign firms. As a matter of cultural norms, most local citizens prefer to be civil servants or managers in big companies rather than running their own businesses. Collectively, these factors relegate SME creation and management largely to expatriates.

Exiguous manufacturing production and low levels of industrial productivity have hampered SMEs from operating in spheres of activity beyond shop management, basic services and agriculture – all highly deconcentrated. Accordingly, manufacturing pitfalls have, in effect, reduced the scale of SMEs to micro enterprises. Although the number varies from one country to another, the number of SMEs in most Arab countries and the average size of an SME are diminutive compared to SMEs in other regions of the world. GCC MNEs are squeezed into unattractive niches by big players – public companies, family-owned conglomerates and, to a lesser extent, MNEs sanctioned by the government to dominate local economies.

Among other things, governments should facilitate SMEs, especially micro enterprises, to acquire funding. To raise the financial capital needed to defray investment and initial operating expenses and working capital to support production, distribution and marketing, the GCC governments should promote the creation of venture capital institutions given that: “in the MENA region ... by banks, ... capital markets and Non-Bank Financial Institutions (NBFIs) [are] less significant financing sources for SMEs as compared to other regions” (World Bank, 2012, p. 12). Given the decline in petroleum prices, it is not viable for governments to be the chief source of capital to finance entrepreneurship.

Several countries in the MENA region began to recognise the importance of SMEs to the national economy, especially in view of the recent demographic changes and high unemployment rate. Integrating their economies into the global markets, Arab countries need to diversify the economic structure and broaden the productive base by creating an enabling environment that facilitates the participation of private enterprises in market activities. This environment entails greater cooperation and collaboration between the public and private sector to encourage innovation and foster knowledge creation to increase linkages and widen market activities.

### **The Importance of Knowledge Creation**

In synchronization with the nature of work becoming more flexible in the new economy, skill requirements and knowledge acquisition have become increasingly critical for organisational performance and global competitiveness. Unlike traditional economic theories in which capital and labour represent key inputs in a production function, in the knowledge economy, intellectual capital is considered the most important asset that organisations possess to compete and increase profitability. Knowledge is viewed as a powerful enabler that empowers individuals, organisations and institutions to strengthen linkages creation and enhance market competitiveness. Countries with limited financial credit and inadequate natural resources are in critical need to invest in building a knowledge support system capable of creating, applying, acquiring and communicating knowledge to foster economic growth and increase linkage creation (Al-Roubaie, 2010).

The pressure on governments to create jobs could be eased by increasing the knowledge content into the production process. Apart from oil and gas resources, most Arab countries lack productive resources including water, agricultural land and minerals to support development. At the current rate of population growth and urbanisation, existing resources will not be sufficient to meet the basic needs of the coming generations: accordingly, living standards may plummet. Sustainable development entails not only restructuring the productive system, but also changing lifestyles to make people conscious of their consumption habits and environmental management. In the Arab world, waste and high consumption are causing considerable environmental stress by increasing the costs of water supply, polluting underground water resources, polluting marine biology and destroying the ecosystem.

Since the beginning of this century, the Arab world has been transformed, responding to the changes in the global environment. Governments in the region introduced policies and constructed strategies aimed at restructuring the economic systems and building knowledge capacity in order to benefit from the new opportunities offered by globalisation. Greater recognition has been given to investment in education and human resource management to increase the stock of human capital and encourage creativity and innovation. It has been recognised that labour market stability and skill development are critical for increasing the supply of knowledge workers. In addition, the rise of Information and Communication Technologies (ICTs) as a powerful tool for sharing and absorbing knowledge and information has motivated policy makers to build e-services capacity and enhance connectivity. Building knowledge capacity requires greater contact among individuals, organisations and institutions, not only within the boundaries of one country, but with the rest of the world. Access to global knowledge is critical for building knowledge capacity, allowing greater dissemination, application and creation of knowledge in various sectors of the economy (Al-Roubaie, 2008).

In recent years, knowledge has been viewed as a powerful driver for rapid economic growth and wealth creation. Countries with limited physical resources, such as Bahrain, can take advantage of the knowledge revolution to sustain economic development and reduce the risk of falling behind the rest of the world. Globalisation has made knowledge a public good accessible to all, implying that countries such as Bahrain can take advantage of the opportunities offered by globalisation by building an infrastructure capable of acquiring global knowledge to enhance knowledge localisation and support development. Undertaking such a task will require institutional incentives driven by well-defined national knowledge policy, aimed at encouraging private enterprises to participate in the process of knowledge localisation. As pointed out by the World Bank, four important pillars provide the basis for converting the natural resource-based economy into a knowledge-based economy. Paramount among these four pillars is increasing the stock of human capital. Human capital is linked to the qualities of the workforce and its ability to acquire, share and produce knowledge and broaden the economic base via the development of new techniques and production of new technologies. In this regard, education becomes vital for strengthening knowledge localisation and building capacity for knowledge creation (World Bank, 2003).

The second important pillar in building the knowledge economy lies in the ability of the country's institutional structure to provide the necessary support for local entrepreneurs and other market players to participate in knowledge creation. Experience from countries such as Singapore, South Korea, Taiwan and Japan shows that governments in these countries played instrumental roles in knowledge localisation and economic diversification. Knowledge creation has been integrated into the national policy to ensure that the equal opportunity is provided

to individuals, enterprises and institutions to participate in market activities and contribute to the development of the economy. The third important pillar is the role that innovation plays in the new economy. Rapid transformation towards a knowledge-based economy requires the discovery of new methods and development of new techniques to support greater integration of the economy into the international economic system. Finally, the knowledge economy requires the construction of dynamic ICTs capable of facilitating knowledge sharing and dissemination of information. ICTs represent a powerful tool that increases connectivity and empowers knowledge localisation. In 2013, for instance, Bahrain ranked among the top five in all of the ICT scores. This is driven by the number of Internet users, mobile penetration and computer installed base. Compared to other countries in the MENA region, Bahrain ranked first with about 16% growth.

Building a knowledge economy entails a productive innovation system capable of providing the means of developing new products and encouraging innovation. Market competition usually encourages firms to become creative and innovative, aimed at increasing their market share and improving profitability. However, innovation is also linked to the ability of workers to acquire skills and update their knowledge. In this regard, the country can play a greater role in innovation by providing the necessary incentives and allocating more resources for education and technical studies. The public sector's ability to compete is limited because of the nature of the work. SMEs would be more motivated to compete, not only locally but also at the global level, in order to succeed. In this regard, it becomes essential that the government introduce radical reforms for supporting innovation through the work of SMEs. The government should work to create an enabling environment aimed at encouraging SMEs to play a much greater role in market activities in order to create jobs and promote innovation.

SMEs can take advantage of the facilities provided by e-services and ICTs to share knowledge and disseminate information, aimed at creating linkages and developing new technologies. Providing an enabling environment for SMEs increases the potential of exploiting tacit knowledge, which stimulates innovation and accelerates the process of knowledge localisation. In the case of communities such as those in the Middle East, ICTs open up new opportunities for entrepreneurship, especially for women, to enable them to work from home. Connectivity via the Internet should be available to women in order to increase their participation in the economy.

Globally, Bahrain ranked 37<sup>th</sup> in the Global Competitiveness Index 2011–2012, and was one of two economies in the MENA region that reached the innovation-driven stage of development. In recent years, the country has initiated policies aimed at introducing market reforms to encourage market activities and make the economy more attractive for foreign investment, particularly in financial services. These measures have strengthened confidence in the economy, allowing local enterprises to gain access to global markets and benefit from globalisation. Restructuring the economy could stimulate competition by allowing local enterprises to gain access to knowledge, trade, finance and information. New global opportunities help integrate SMEs into the global economy by acquiring skills and knowledge that are needed to strengthen the fundamentals for knowledge localisation.

In Western countries, including Japan, SMEs are heavily involved not only in the production of goods and services, but also in knowledge creation and the development of new technologies. Providing the financial and technical support for SMEs will empower these firms to take an active role in linkage creation and technology transfer. Unlike foreign firms, SMEs are potentially viable for the local economy, but they need support through preferential access to finance and protection from multinational businesses. In particular, in the wake of the

global financial and economic crisis, these enterprises become more vulnerable. To address this vulnerability, special measures are required to be put in place to reduce the risk of failure and provide the necessary protection from foreign firms. In the case of Bahrain, most of the entrepreneurs behind start-ups SME are young with little experience in business. Government support is essential to improve the entrepreneurial climate and make it friendlier to SME development.

#### **As pointed out by UNESCO:**

“The simple substitution of scientific knowledge for local knowledge could have disastrous consequences for humanity and in particular for developing countries, since scientific production does not suffice to protect certain kinds of vital knowledge” (UNESCO, 2005, p. 148).

Localisation of knowledge helps the integration of local knowledge into development projects if sustainable development is to be achieved. In the Middle East and North Africa, there is a need for a new approach to development away from the current heavy dependence on oil and gas resources. The biggest challenge perhaps facing the region today lies in job creation and fostering economic growth to prepare these countries for the coming era of depletion of oil and gas resources. Unemployment in the region is currently close to 25% of the labour force, which will increase the potential for social and political instability. Currently, development is driven by a low productive structure with little diversification to enhance competitiveness and promote global integration. In addition, the public sector remains dominant as the main source of job creation and project financing.

#### **SMEs and Knowledge Localisation**

Local entrepreneurs could help in advancing the cause of localisation of knowledge by enabling society to acquire knowledge through transfer, as well as training and preparing young entrepreneurs to participate in knowledge production and use. In this age of information, young people are not only digitally competent, but evince the desire to compete and attain success. In this regard, state institutions could play a vital role in building the foundation of knowledge localisation by creating an enabling environment aimed at greater participation of young entrepreneurs in the economy.

“The concept of localisation of knowledge encompasses three integrated key elements: first is the production of knowledge, second is the employment of knowledge for human development purposes in its cultural, scientific, social, political and environmental dimensions; and third is the dissemination of knowledge” (United Nations, 2014, p. 5).

In other words, “Localisation of knowledge is the transition from consumption of knowledge and recycling it from its original form, to its acquisition, use and deployment” (United Nations, 2014, p. 5).

In GCC countries, the process of localisation can be enhanced through the creation of enabling an environment capable of exploiting tacit knowledge and using it to build a foundation for indigenous knowledge systems. Localisation of knowledge can ensure adequate customisation of external knowledge and technology to enhance local capabilities, producing

and applying knowledge. As stated by the Arab Knowledge Report 2014, the greatest challenge facing Arab countries' creating knowledge societies lies in the process of "building the human being, or the knowledge capital, on new foundations that are aligned with the requirements of the current age" (United Nations, 2014, p. 3).

Through young entrepreneurs, knowledge can easily be transferred and adapted in new enterprises. Today, young entrepreneurs are equipped with the skills, know-how and competencies to acquire, communicate and localise knowledge effectively to develop new products and compete both locally and globally. On the one hand, the enabling environment must support young entrepreneurs in acquiring knowledge that strengthens the use of knowledge and stimulates innovation. In this regard, the educational system is vital for knowledge localisation by enhancing society's capabilities to acquire skills and competencies for knowledge creation and application. On the other hand, an effective means of utilising these skills and talents is to facilitate youth participation in market activities to allow them the opportunity to practice their skills and mobilise their know-how. The education system should be oriented towards providing curricula that imparts in young people market-relevant scientific and technical skills essential for collective knowledge development. In addition, the government should participate in building the required infrastructure that creates and stimulates an enabling environment for knowledge localisation.

The knowledge economy is driven by human capabilities to create new knowledge and develop new products aimed at diversifying the economic structure and promoting innovation. This makes human capital the most valuable resource in the process of knowledge localisation and strengthening the fundamentals for knowledge creation. In GCC countries, investment in people serves the economy by creating value through innovation and development of new technologies. A well-trained workforce fosters the process of knowledge localisation and increases linkage creation. Thus, failure to address knowledge localisation via improvements in education will reduce the ability of the economy to generate knowledge, sustain development and buoy economic growth.

Government initiatives need to continue to provide the proper environment for knowledge localisation, using local entrepreneurs who become directly involved in knowledge transfer and technology dissemination. There are four important steps that government needs to provide for the integration of young people into the processes of localisation of knowledge:

1. Strengthening the systems of youth empowerment;
2. Strengthening the systems of knowledge localisation, including the process of knowledge transfer and production, as well as its employment in supporting human development;
3. Providing the enabling and supportive environments for each of the above two components, including societal support, economic structures and institutional, legislative, financial and cognitive tools;
4. Providing the required on-the-ground mechanisms for the achievement of positive interaction between the three previous systems, in order to effectively move towards the transfer, localisation and employment of knowledge (United Nations, 2014, p. 120).

In this regard, localisation of knowledge provides an environment that combines knowledge acquisition from external forces, mainly through globalisation and the knowledge of indigenous society. Knowledge production and use entails certain values driven by indigenous cultural, political, economic, social and environmental elements that need to be taken into consideration in the construction of the knowledge economy. Localisation of knowledge should not be confined to knowledge transfer, but also used to stimulate innovation and the

development of new technologies to enhance the country's competitiveness and foster growth. Initiatives for building such an environment should be integrated into national economic policy to ensure that the indigenous knowledge system plays an active part in the process of knowledge localisation.

Using Western models in development without being customised to fit the local environment could result in recycling information with little or no innovation being realised. Advancing development entails innovation that contributes to solutions of problems linked to the local environment. The complex nature of the developmental process requires an enabling environment capable of involving local enterprises, including young entrepreneurs, in the process of knowledge localisation. This also could involve funding for SMEs and young entrepreneurs, allowing them to use their skills and creative ideas in the process of localisation. In recent years, Bahrain has realised the merits of such localisation and has begun to provide entrepreneurial finance through TAMKEEN<sup>1</sup>: the country has initiated incubators aimed at spurring innovation and entrepreneurship through the cultivation of knowledge localisation. The new approach to development, elevating people, especially the young, to the forefront of development, renders education the key driver behind economic growth and global competitiveness.

## CONCLUSIONS

Recent literature on development studies highlights the concept of human development as an alternative approach to socio-economic transformation. Human development is a multi-dimensional concept, comprising elements of education, health, income and social well-being. Unlike other concepts that are oriented towards increasing output, human development seeks to help people by providing them with their basic needs. Thus attention in human development has shifted to solving the problem of poverty, income inequality and equal access to attaining social needs in the aftermath of globalisation.

The rise of globalisation has provided new opportunities for countries to compete in the global market and gain advantage from globalisation. In this new age of global competition, it has become incumbent upon countries to open up their economies through the liberalisation of trade and greater participation of private enterprises in global trade. The new economy driven by globalisation requires certain skills and knowledge to support innovation and meet international standards. Although the knowledge revolution presents challenges for many of the countries in the region, it offers a new approach that may resolve several of the long-term challenges facing the region. Knowledge has become an important driver for economic growth and sustaining development. SMEs need access to information, skills, new ideas and technical know-how to strengthen their marketing.

An important change agent for the transformation of Arab economies from those based on natural resources to those based on knowledge, is epitomised in the form of the SME. SMEs, as agents of change, have the advantage of selectivity and concentration on key technologies that plug into tacit knowledge already extant in the region to generate, what economists dub, sustainable growth in contrast to bubble economy growth - spurts of growth that seem real at

---

<sup>1</sup>TAMKEEN is a government institution established in 2006 with the task of providing the private sector in Bahrain with the financial and technical support to diversify the economic structure and sustain development.

first only to deflate after the speculators finish with their binge. Hardest hit from the crash in asset prices stemming from the Great Recession in 2008-2009, the UAE, particularly Dubai, has made significant strides in transforming from a resource-based to a knowledge-based economy.

Notwithstanding its position as the most e-enabled of the GCC countries, Bahrain lags behind the UAE in terms of fostering innovation and entrepreneurship. Noteworthy milestones in Bahrain in this aspect have been the creation of TAMKEEN and the development of incubators to sustain start-up projects in their infancy. Nonetheless, there is potential in Bahrain to tap into tacit knowledge if skill gaps in the work force can be adequately addressed. The national strategy Bahrain 2030 has a vision, which, if realised, will propel Bahrain to the ranks of knowledge economies. In Bahrain, the government has a mixed record on understanding the need for private sector involvement in economic development, although it has taken some initiatives, such as pruning back subsidies, to enhance Bahrain's regional and global competitiveness.

Unfortunately, in many economies in the Arab world, SMEs have been marginalised by big economic actors in the economy spanning public sector owned companies, family conglomerates and, to a lesser extent, MNCs present in the region. In effect, SMEs have been relegated to the ranks of micro-enterprises in often un-dynamic niches in the economy; they are, therefore, unable to generate the kind and level of innovation that SMEs have generated in even other regions of the developing world (let alone those in developed regions). Among other economies, the Kingdom of Bahrain has witnessed substantial SME marginalisation of this kind.

Compounding matters are the decline in petroleum prices, on the one hand, forcing once cash-rich Arab oil exporting countries to increasingly draw down sovereign wealth making it harder for the public sector to finance entrepreneurship on a 'go-it-alone' basis without private sector participation (which, unfortunately, is weak in the Arab economies). On the other hand, the decline is clearly driving the message to national governments in the MENA region that reliance on a single sector for economic growth is no longer tenable, showing that the only solution for sustained growth is conversion to knowledge economies.

Countries in the region should construct policies and build strategies designed to restructure the production system and diversify production by encouraging SMEs to participate in the economy. Unfortunately, the overweening presence of government has created a drag on the dynamism of the corporate sector in many countries, which is compounded by anti-competitive family owned conglomerates. It is recommended that governments resist and, in some cases, reverse the regulatory framework, which, in many instances, is smothering economic change agents such as entrepreneurs. Public companies should be sold off to create a fund for investment in the knowledge economy, and a small corporate tax should be levied on all large corporations; this would also be with a view to supporting a fund for entrepreneurship on the model of Bahrain. (To its credit, Bahrain long ago instituted a 'levy' on banks that stimulates the training of bank personnel through the Bahrain Institute of Banking and Finance (BIBF).) Large privately held companies should be taxed at a higher bracket than publicly traded companies in view of their commensurately high negative effect on competitiveness. (If they break up and go public, the erstwhile family business conglomerates would be eligible to pay the cheaper rate.) Increasing investment through both public and private sector sources of funds would empower young entrepreneurs' capabilities to develop new technologies and invent new products if, at least, a proper enabling environment - free of the bane of over-regulation - is instituted. Governments should cultivate tacit knowledge by providing

incentives and funding for young people to take part in the market economy. In the Arab world, there is manifold talent to be exploited; however, creating an enabling environment is the *sine qua non* to attract talented individuals and university graduates.

## REFERENCES

- Al-Roubaie, A. (2008), Building Capacity for Labour-Market Flexibility in a Globalised World: The Role of Universities, in Al-Hawaj, A., Elali, W. and Twizell, E.H. (Editions), *Higher Education in the Twenty-First Century: Issues and Challenges*, London: CRC Press, 2008, pp. 57–70.
- Al-Roubaie, A. (2010), Building Indigenous Knowledge Capacity for Development, *World Journal of Science, Technology and Sustainable Development*, Vol. 7, No. 2, pp. 113–129.
- International Monetary Fund (IMF) (2015), IMF Country Report No. 15/220, <https://www.imf.org/external/pubs/ft/scr/2015/cr15220.pdf>.
- Aubert, J.-E. and Reiffers, J.L. (Editions) (2003), *Knowledge Economies in the Middle East and North Africa: Toward New Development Strategies*, Washington, World Bank.
- Organization for Economic Cooperation and Development (OECD) (1997), Small Businesses, Job Creation and Growth: Facts, Obstacles and Best Practices, <http://www.oecd.org/cfe/smes/2090740.pdf>.
- Singh J. (2005), Collaborative Networks as Determinants of Knowledge Diffusion Patterns, *Management Science*, Vol. 51, No. 5, pp. 756–770.
- UNESCO (2005), Towards Knowledge Societies, Paris: UNESCO, <http://unesdoc.unesco.org/images/0014/001418/141843e.pdf>.
- United Nations (2009), *Arab Human Development Report 2009*, New York: United Nations.
- United Nations (2014), *Arab Knowledge Report 2014*, Dubai: United Nations.
- Wagner, S., Hoisl, K. and Thoma, G. (2013), Overcoming Localisation of Knowledge, The Role of Professional Service Firms. *ESMT Working Paper*.
- World Bank (2003), *Knowledge Economies in the Middle East and North Africa: Toward New Development Strategies*, Washington, World Bank.
- World Bank (2012), *SMEs for Job Creation in the Arab World: SME Access to Financial Services*, Washington: World Bank.
- World Bank (2015), *World Development Indicators*, Washington: World Bank.
- World Economic Forum (2011), *Arab World Competitiveness Report 2011–2012*, Geneva: World Economic Forum and Organisation for Economic Co-Operation and Development (OECD).

---

## BIOGRAPHICAL NOTES

**Amer Al-Roubaie** earned his PhD in economics from McGill University in Montreal, Canada. He has taught in several universities in Canada, the United States, Malaysia and Bahrain. His main areas of interest are related to the fields of development, energy, the knowledge-based economy and international business. He has written and published in several international journals.

**Muneer M.S. Almubarak** (PhD, University of Leeds; MBA, Durham University) is an Associate Professor of Management and Marketing at Ahlia University. His main research interests are in the areas of SMEs, relationship marketing, competitive advantage, CRM, CEM, entrepreneurship and international business relations.