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Knowledge Absorption and Economic Diversification: The Case of Bahrain

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ABSTRACT: Knowledge is critical for socio-economic transformation. Countries that are lacking to financial and natural resources can invest in knowledge production to promote innovation and diversify the economy. Knowledge is a global good available for all interested in its use. Building capacity for ICTs could facilitate knowledge acquisition, absorption and distribution. In recent years, Bahrain has been making serious initiatives to diversify its economy from a resource-based to a knowledge-based economy. This is to reduce global financial vulnerability and foster economic growth. The aim of this paper is to examine Bahrain's capabilities to promote economic diversification through participation in the global markets. Access to the global markets helps the country to reduce costs and speed up the process of development. Global access increases collaboration and encourages partnership between local and foreign firms to produce goods and services. In doing so, Bahrain can benefit from skills acquisition, technology transfer and innovation. The paper focuses on the importance of external knowledge in enhancing capabilities to diversify the economy. Bahrain needs to strengthen the fundamentals for building capacity for diversification by investing in ICTs, education, institutions and innovation.

Keywords: Knowledge, Globalization, Diversification, Innovation

I. INTRODUCTION

In the new economy, knowledge is an important input in production and a key driver of economic growth. It empowers society to diversify output and increases capabilities to promote innovation, create jobs, and sustain growth. In developing countries, narrowing the knowledge gap should be given top priority to increase productivity and speed up the process of development. The new economy, also known as a knowledge-based economy, uses knowledge and creativity as the main inputs in production of goods and services. Enhancing the economy capabilities to produce knowledge will require investments in education, ICTs infrastructure, and research and development (R&D) to support linkages creation and stimulate entrepreneurship.

In recent years, Bahrain has taken several policy initiatives to reduce the dependence of the economy on a limited number of commodities. For several decades, economic development in GCC countries, including Bahrain, has been financed by revenues from production and export of energy, mainly fossil fuels. Across the GCC region, income from oil accounts for a large percentage of government revenues and expenditures, investment allocations, foreign exchange earnings and GDP. However, high degree of trade concentration increases economic and financial vulnerability by making the economy sensitive to changes in commodity prices and demand in global markets. Economic diversification reduces dependence on natural resources so that the impact of global volatility will be minimized. In recent years, countries in the region have pursued policies, in the case of Bahrain formulated in 2030 Vision, to support knowledge creation, innovation diffusion and output diversification.

This paper examines the role that external knowledge plays in productivity growth and economic diversification. Recent trends in oil prices have increased economic vulnerability prompting the government to rethink development and invest in knowledge creation and innovation diversify the economy and reduce the risk of high dependency on international trade.Knowledge absorption can be used to strengthen knowledge localization and provide entrepreneurship new opportunities to contribute to diversification. Creating suitable business environment for knowledge absorption is not likely to be sufficient without the support of government institutions. Partnership between public and private sectors will address the challenges that hinder rapid transformation of the economy. This paper focuses on GCC countries with specific reference to Bahrain. Among the GCC, the economy of Bahrain is the most diversified which represents an important step on the path toward building capacity for productive economy.

II. ABSORPTIVE CAPACITY

Absorptive capacity is a term used to define the ability of an enterprise to acquire new knowledge and information and make use of it to produce goods and services for commercial purposes. For developing countries, absorptive capacity facilitates transformation of the economy through tapping and use of external knowledge to stimulate linkages creation and broaden the productive sectors of the economy. External knowledge reduces the cost of development and encourages local enterprises to compete in local, regional and global markets. An absorptive capacity is defined as the "ability of a country – including entrepreneurs, firms and institutions – to recognize the potential value of new or novel knowledge and technology, and to transfer and assimilate it with objective of bringing to market a product or a service." [1]

Absorptive capacity is made of two elements; one is related to the ability of the business enterprise to "identify and acquire externally generated knowledge that is critical to its operations", and two is related to the assimilation capability which "refers to the firm's routines and processes that allow it to analyze, process, interpret, and understand the information obtained from external sources." [2] Enlarging the country's absorptive capacity requires

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investment in education to enhance capabilities for technological learning and localization of knowledge.A knowledge enabling environment is defined as an "integrated system based on the interaction of educational, economic, social, political, technological, and media frameworks among others." [3] The educational system empowers the country capabilities to create new knowledge and contribute to economic diversification.

Expanding the country absorptive capacity can be achieved through technology transfer and building an appropriate business environment that attracts multinational corporations to locate operations in the country.Foreign firms contribute to broadening the economy's absorptive capacity through technology transfer, knowledge dissemination, skills acquisition and collaboration between and among various institutions."its major determinants are the economy's existing knowledgebase and the support and incentives that policies provide to technological learning and innovation processes within firms, and to the emergence of linkages between knowledge institutions and productive sectors." [1]

Knowledge absorption helps countries narrowing the knowledge gap which contributes to diversification of production and integration in the global markets. Spillovers of external knowledge create new opportunities for local entrepreneurs impacting both producers in the same industry and producers in another industry. In both cases, however, new value can be created which enhances the country capabilities and diversify output. Capabilities are critical to countries' ability to exploit the opportunities offered by new and emerging technologies – and there is a wide gap in capabilities between developed and developing countries. [4] Gap capabilities are linked to the country ability to produce new technologies domestically and to absorb technologies produced in other countries. Narrowing gap capabilities will require local firms to develop 'absorptive capacity' to stimulate linkages creation and increase integration in the global economic system. Supportive policies such as "fiscal incentive and subsidies; promotion of collaboration through business incubators; science and technology parks; cluster and other forms of organization; and of technology prospecting institutions that identify and select technology from abroad for local diffusion and use." [5]

Bahrain can develop its economy's absorptive capacity by increasing access to global markets. A study by the World Bank identifies three important steps to narrow knowledge gaps: 1) acquiring knowledge which involves taping and adapting knowledge available elsewhere in the world; 2) absorbing knowledgethrough universal education; and 3) communicating knowledge by taking advantage of the new information and communication technologies. Recent advancement in digital technologies can enlarge the economy absorptive capacity and enhances the effectiveness of knowledge localization. Global access to knowledge and information increases the ability of local firms and domestic industries to collaborate, share knowledge and acquire skills for knowledge localization and creation. [6]

The development of local entrepreneurship requires the adaptation of global knowledge to domestic market conditions. External knowledge empowers local enterprises to create new knowledge and diffuse innovation suitable for the local environment. In this regard, conducting research and development becomes vital for expanding the frontier of knowledge localization. In small countries such as Bahrain, tapping global knowledge increases local capabilities build new technologies to strengthen localization of knowledge. In a recent study by the United Nations in collaboration with Mohammed Bin Rasid Al Maktoum localization of knowledge is defined to include three key elements: 1) transfer of knowledge; 2) the production of knowledge and 3) the employment and diffusion of knowledge for development purposes to benefit society. [3] Bahrain must build its local absorptive capacity to promote innovation, produce linkages, create new jobs and foster economic growth.In other words, indigenous knowledge is critical for supporting rapid development and encouraging local entrepreneurship to participate in the economy.

The economy of Bahrain is small compared to other GCC countries. In 2017, the country's total GDP accounted for $35 billion which comprised 42% in the form of goods while services contributed 58%. Bahrain is known for its financial services sector which added 17% to the total GDP in 2017. Manufacturing production accounts for the largest share to total GDP with 18.6% whereas mining contribution reached 14.5%. The economy is expected to grow by 2.1% in 2019. Bahrain ranked high in the Global Competitiveness Index 2018 earning 63.63 points out of 100. In recent years, the government has been focusing on investment in human capital, ICT, physical infrastructure and innovation to enhance the economy readiness and participate in the new digital economy. Government effort to promote e-services has been successful providing coverage of a wide range of services for citizens. The government still needs to encourage the private sector to increase participation in the economy and promote diversification. Both diversification and the private sector are important for addressing the challenges of the 4th Industrial Revolution. Addressing the challenges of the digital age will help Bahrain to create jobs, increase the share of manufacturing production as well as reduce economic volatility. Education and innovation should be given high priority in order to speed up the process of transformation and increase global competitiveness. Building ICT infrastructure to strengthen connectivity and communication is necessary for sustaining growth.

Compared to other countries in the GCC, Bahrain's economy is relatively small. Oil revenues account for a major share of government's revenues and expenditure, foreign exchange earnings and GDP reflecting the dominance of the energy sector in the country national development.The government needs to diversify the economy by participating in the oil industry global value chain and adapt vertical diversification by manufacturing its crude and increasing output.Countries that depend on a limited number of commodities for export, the economy has the tendency to become vulnerable due to the volatility of both prices and demand in the international markets, particularly in countries where the export share accounts for a large percentage of GDP. Similarly, horizontal diversification broadens the productivity base through linkages creation and increase output of non-oil sector. Oil revenues must be used to promote development by increasing investment in non-oil sectors and reducing export concentration.

Producing goods and services for the global markets provide greater access to knowledge and technology for development.Bahrain should take advantages of the Global Value Chains (GVCs) to broaden the productivity base of the domestic market. Globalization has helped multinational corporations to outsource part of their value chain's to reduce production costs and compete in the global markets. Developing countries, including Bahrain, can take advantage of the new chains and produce intermediate goods for multinationals. In this regard, SMEs should be provided incentives to participate in the global chains and benefit from the new global opportunities. In addition to the production of new products, diversification involves new markets. Opening new markets increase sources of demand for the country exports which encourage local entrepreneurship and reduce trade concentration. SMEs can take advantage of the new markets and participate in production of goods and services for local, regional and global markets. Participation of SMEs could improve the country's absorptive capacity by adapting foreign knowledge and technology to the local needs. In most GCC countries, SMEs remain inactive to gain full access to global markets and participate in the global chains. "In many countries, inadequate legal frameworks and a lack of policy stability discourage private sector investments, especially from abroad." [7]

There are two indices used to measure export concentration reflects the 'degree to which a country's exports are concentrated on a small number of products or a small number of trading partners.'With the exception of UAE, the economy of Bahrain is more diversified compared to other countries in the region. Bahrain has low export concentration ratio of 0.31 compared to 0.61 for Kuwait, 0.59 for Saudi Arabia, 0.49 for Oman.High degree of export concentration is an indicator of the economy's sensitivity to fluctuations in external markets.[8]

Participation of entrepreneurship in market activities is important for building absorptive capacity and engaging in technology prospecting. SMEs have the capabilities to upgrade foreign technology to local needs, which increase the ability of the economy to produce goods and services. "The global availability of frontier technologies at declining costs can enable entrepreneurs to create new companies and other organizations, and governments to apply these technologies and draw on a large and growing base of platform users." [4]

Digital technologies could enhance the country' capabilities to acquire knowledge, transfer technology and obtain skills for development. Online education removes some of socio-cultural obstacles that restrict women from participating in the new economy. However, there is a need to reform the existing curricula to make education accessible to everybody without discrimination on the basis of gender, race, color or religion. Educational reform must improve the quality of education in the country by encouraging the expansion of exchange programs between and among universities in the region and the rest of the world. Making use of digital technologies will offer students and faculty access to new knowledge which can be tapped for local entrepreneurship and diversifying output.

III. GLOBAL KNOWLEDGE ACQUISITION

Globalization has increased interconnection among and within nations allowing individuals; businesses and institutions to communicate and make joint decisions concerning trade, business and finance. In this regard, domestic economic policies are no longer isolated form the globalization of the world economic system providing countries with greater access to global knowledge, information and technology for development.

Improving the knowledge and innovation systems are key drivers of knowledge localization. The developing countries need to create an appropriate environment to facilitate knowledge absorption and provide incentives for private sector participation. The globalization of knowledge and technology has improved the ability of these countries to narrowthe technology and knowledge gaps by increasing access to global markets and benefiting from the opportunities offered by globalization. Technology prospecting can be an important source for obtaining appropriate technologies for development. It "entails the searching for, identifying, adapting and diffusing imported technology. It uses technologies that are readily available to the local economy." [9]

Foreign Direct Investment (FDI) and activities of multinational corporations could enlarge the absorptive capacity of the local economy to acquire knowledge, skills and technology for development. Inter-sectoral linkages stimulate demand for locally produced intermediate goods and labor for foreign firms working in the local market. Activities of multinational corporations should be integrated into the national economic policy to influence linkages creation as well as to ensure that manufacturing production and technology of foreign firms contribute to productivity growth of the local economy. The challenge facing the local economy is to close the technology and knowledge gaps so that to speed up the process of catching up with the foreign firms. Technology gap is defined by UNCTAD as the 'difference in technological or knowledge advancements between firms and countries' [1]Among nations, technology gap measures the state and distribution of technology showing the innovation capabilities that a country enjoys to promote manufacturing productivity and foster economic growth. Speeding up the process of technological advancement and building local capacity for manufacturing production will help bridging the technological gap and increasing global competitiveness.

Conducting research for producing new technologies applicable to the local environment is vital for closing the technological gap. New technologies must be designed to sustain growth and reduce the risk of high unemployment. Research and development in most Arab countries remain low to support innovation and develop new technologies.

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Empirical studies have shown that there is no positive relationship between innovation and GDP in the Arab world reflecting the inability of the industrial sector to develop new products and foster growth. [1] The Arab world spends 0.5% of GDP on R&D which is one of the lowest among world regions.

International trade and foreign direct investment could provide Bahrain greater access to global markets which are critical for building knowledge capacity for development. Trade enables the country to choose among alternatives and ensure that technology contributes to the development of the domestic markets. Acquiring skills from foreign firms enhance technological learning and provides greater opportunities for local firms to upgrade and adapt foreign technologies to the local environment. Exposure of local enterprises to external markets increase readiness as well as allow local firm to make choices among alternatives. Under such circumstances, participation in GVCs increases “firms exposure to new technologies, tacit knowledge, and technical or managerial capabilities, fostering productivity gains, allowing firms to upgrade their activities and climb up the value chain.” [10] GVC provides incentive for export production and encourages local firms to upgrade foreign technology for local circumstances.

The government must encourage local firms to engage in market activities to learn and adapt technology to local purposes. Currently, Bahrain receives very small inflow of foreign capital which is inadequate to diversify production and foster knowledge creation. In 2017, Bahrain received $519 million in FDI compared to $234 in 2016 and $65 in 2015. It is important that FDI contributes to development not only in terms of adding value to total output, but also in terms of technology transfer, skills acquisition, innovation diffusion and human capital development. “Countries that fail to encourage investment in the effective use of global and local knowledge are likely to fall behind those that succeed in encouraging it.” [6] However, to strengthen knowledge acquisition countries need invest in human capital and technology to expand the absorptive capacity and create knowledge locally. The challenge for countries, including Bahrain, is to increase their capabilities so that local enterprises will be able to adapts, absorb and use knowledge.Integration into the global value chain encourages industrialization and creates new job opportunities.GCC countries can increase the share of manufactured production in total trade through participation in global value chains. Such participation could be an important step towards structural transformation to reduce the country dependence on oil revenues.

The government can introduce rules for selecting technologies and improve local capabilities. In this regard, government support becomes necessary for creating an appropriate business climate that encourages local firms to participate in the economy and also make it attractive for foreign firms to invest in the domestic market. The government should provide incentives to make use of FDI as a “vehicle for carrying tacit knowledge as well as assisting enterprises at the frontier of world technological learning.” [9] Bahrain needs to build networks that link local enterprises to international technology producers so that technology can be acquired and adapted to local needs. Such linkages allow local firms to develop their technological capabilities to support knowledge localization and innovation. Investment in science and technology increases the economy readiness to participate in the digital economy and support technological development.

Bahrain can speed up the process of development through partnership and collaboration with international firms. The government should facilitate such partnership by providing incentives and support for local enterprise. Establishing partnership could help in transfer of technology and knowledge to the local economy and also improve technological learning of local producers. Creating linkages through partnership will connect local firms with regional and international markets so that to improve competitiveness in both local and global markets. The development of manufacturing production is possible through greater access to technology, capital, skills and markets. Partnership between local and foreign enterprises contributes to building absorptive capacity for manufacturing production in the domestic economy. Participation of the private sector in global partnership depends on investment in human capital to strengthen linkages and reduce the costs of doing business.

IV. ECONOMIC DIVERSIFICATION

For several decades, economic development in the Arab world has been financed by revenues from production and export of natural resources, mainly oil and gas. Earnings from these resources account for a large percentage of government revenues and expenditures, foreign exchange, and GDP. Theoretically, high degree of trade concentration makes the economy vulnerable to changes in commodity prices impacting income, employment and confidence in the economic system.

Oil producing countries need to diversify their economies by increasing locally produced goods and services to enlarge the productive capacity of the economy and reduce dependence on foreign trade. The challenge facing Arab countries is to increase sectoral productivity and diversify output so that the economy becomes more competitive. Arab countries need to rethink development by adapting inclusive model capable of transforming the economy into creative, innovative and productive system. “Oil-led economic growth has led to premature de-industrialization and reinforced the subordinate position of the Arab region in the global hierarchy of production.” [11] International cooperation plays an important role in economic diversification. It expands the country’s absorptive capacity and facilitates diversification through search and share of the best practices and experiences of countries already diversified. Also, facilitate technology transfer and knowledge acquisition which can be used to speed up the process of diversification.

A diversified economy promotes sustainable growth and reduces economic and financial vulnerability. Diversification increases confidence in the economy which makes investments by local and foreign firms more attractive.

Through diversification, the economy is to be transformed from using limited number of commodities to multiple sources of income. Reliance on limited sources of income hinders development due largely to instability in export earnings. Economic diversification can be considered as a strategy to "transform the economy from using a single source to multiple sources of income spread over primary, secondary and tertiary sectors, involving large sections of population. The objective has always been to improve economic performance for achieving sustainable growth; for example, building resilience against fluctuations in extraregional economic activity; reducing vulnerability to income loss due to volatility of product price on the international market, creating job opportunities and alleviating poverty." [12]

For countries that depend on international trade for consumer and capital goods such as Bahrain, diversification of output reduces the risk of external shocks and deficit in the balance of payments. It is possible that decline in prices of one commodity exports can be offset by the rise in prices of another one. Economic diversification could be implemented by expanding sectorial output or by promoting adaptation measures in vulnerable sectors to increase resilience within sectors.

In most oil producing countries unemployment has become a major policy issue due to rapid increase in job seekers especially among youth and women. New job opportunities to accommodate newcomers can be created by investing in non-oil sectors such as industry and services. Government policy should focus on industries that generate large spillovers to stimulate entrepreneurship and encourage investment."Broadening and upgrading their export bases can help GCC countries better integrate into global value chains and make their economies more productive." [13] In most GCC countries the manufacturing sector is relatively small contributing to less than 20% of GDP.

In recent years, economic diversification has become an important policy goal towards achieving 2030 vision in most countries in the Arab region. Governments in the region need to adapt effective policies to support integration of local enterprises into the global economy to strengthen absorptive capacity for development. Diversification increases the ability of the economy to learn more about innovative products, knowledge sharing and new technology. "Many countries in the region have adopted diversification plans and other economic strategies, often focusing on a number of key sectors including finance, logistic, tourism, and tech-based services, and manufacturing. Yet success have been limited in most cases because of a number of key obstacles remain." [7]

Table 1 illustrates the new steps countries need to implement in order to promote diversification. The new approach includes investments in manufacturing production and services, attracting FDI and flexible and nuanced of regulatory tools. Government involvement is critical for diversification success. Government can remove obstacles that hinder diversification by building infrastructure, improve productive capacity, create suitable business environment and increase skills. As shown in the table the new approach is directed towards manufacturing production, greater managerial flexibility and efficient seeking investments.

Table 1
Old versus new regulatory approach for diversifying economies

	Old	New
Development strategy	Dependence on oil and related activities	A more diversified, manufacturing and service-based economy
Foreign direct investment attraction	Attracting natural -resource and public-procurement seeking investment	Attracting efficiency – seeking and market-seeking investments
Regulation	Risk-averse, rigid and heavy-handed use of regulatory tools	Smart-risk management, flexible and nuanced use of regulatory tools

Source: AkhtarMahmood, Unlearning to Learn: The Path to Diversification, 2017 https://www.brookings.edu/blog/future-development/2017/01/25/unlearning-to-learn-the-path-to-diversification/

The goal of government policy is to identify the country best position in value chains and provide support for local enterprises to benefit from the global economy.The private sector plays an important role in identifying value chains opportunities which enable the local economy to increase spillovers and promote innovation. However, "Using global value chains for development requires public institutions to help build and support the country's entrepreneurship base.This includes entrepreneurial training, and access to finance, as well as partnering with local firms when formulating global value chain strategy." [14]

Today, digital technologies are increasing national's capabilities to acquire, absorb and communicate knowledge for development. Digital technologies are offering new opportunities to tap global knowledge for speeding up the process of integration into the global markets and participating in the 4th Industrial Revolution. Technology transfer increases technology spillovers which encourage entrepreneurship and stimulate productive activities in the domestic economy. The challenge for Bahrain is to ensure that technology transfer has a positive impact on productivity by increasing sectoral output and creating quality jobs. Strengthening diversification efforts require the implementation of certain policies are implemented such as providing stable macroeconomic environment, strengthening the business environment, investing in infrastructure, education, and skills, targeting the development of specific sectors, and promoting entrepreneurship through SMEs. [15]

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V. CONCLUSION

Economic diversification has been directly linked to the ability of the economy to broaden the economic base and increase sectoral output. Over the past few decades, the economic performance of oil exporting countries, including Bahrain, has been linked to commodity prices in the global economy subjecting the economies of these countries to a high degree of instability. Public expenditures in these countries account for a large percentage of total investments in the domestic economy making the public sector the main source of economic growth. The bulk of these expenditures by the public sector are made of revenues from the production and export of oil and gas. Government initiatives to reduce dependence on oil revenues have been hindered by lack of skills, low participation of private enterprises, inadequate business environment, poor institutions and weak linkages creation. Economic diversification reduces the risk of economic and financial vulnerability by increasing the economy ability to stand against market volatility.

Globalization, driven by ICTs, has given developing countries new platform for supporting development. Opening up of global markets and liberalization of trade have increased the country's capabilities to enlarge the absorptive capacity and speed up the process of transformation. Knowledge is a global good available to users at minim costs, and therefore, making use of the knowledge produced elsewhere could help local firms producing knowledge applicable to local needs. In GCC countries, both governments and private sector should work together to increase readiness and support economic convergence.

Contribution of the private sector to economic diversification is critical for rapid transformation. Local enterprises can expand productivity through innovation, collaboration and joint projects with local, regional and global firms. In countries where unemployment is high, SMEs could provide greater opportunities for new jobs. The new economy, driven by knowledge and innovation, requires managerial and technical skills to improve knowledge creation and technology transfer. SMEs facilitate market needs through participation in global chains and acquiring access to global inputs. Governments in the region should realize the contribution of SMEs and provide the necessary financial and technical support needed to strengthen the operations of domestic entrepreneurs.

Countries with limited resources can acquire external knowledge to strengthen the fundamentals for building capacity for innovation and knowledge creation to support development.In other words, oil producing countries need new model for development to replace the export-led growth model in which energy production and exports are key drivers. The model has been responsible for economic duality due to weak spillovers to encourage local entrepreneurship and stimulate market activities. Technologically, the economies of most oil exporting countries benefited very little from the oil operations for building industrial capacity for development.Knowledge and innovation must be the main components of the new model to enable the economy create new opportunities that diversify production and create jobs.

REFERENCES

1. United Nations Conference on Trade and Development (UNCTAD), Transfer of Technology and Knowledge Sharing for Development,United Nations, 2014, P. 23, P. 23, P. 6, P. 183https://unctad.org/en/PublicationsLibrary/dtlstict2013d8_en.pdf
2. Wikipedia, https://en.wikipedia.org/wiki/Absorptive_capacity
3. United Nations Development Programme (UNDP), Arab Knowledge Report 2014,Dubai: Al Ghurair Printing and Publishing, 2014, P. 41
4. United Nations Conference on Trade and Development (UNCTAD), Technology and Innovation Report 2018, 2018, P. xii, P. 27 https://unctad.org/en/PublicationsLibrary/tir2018_en.pdf
5. United Nations, Bridging the Technology Gap Between and Within Nations, 2006, P.6
6. https://unctad.org/en/Docs/ecn162006d2_en.pdf)
7. World Bank, Knowledge for Development, Washington, World Bank, 1999, P. 25
8. World Bank Group, The Arab World Competitiveness Report 2018, 2018, P. 11, P.9 http://www3.weforum.org/docs/Arab-World-Competitiveness-Report-2018/AWCR%202018.0724_1342.pdf
9. United Nations Development Programme (UNDP), Towards Human Resilience: Sustaining MDG Progress in an Age of Economic Uncertainty, 2011, New York, UNDP.https://www.undp.org/content/dam/undp/library/Poverty%20Reduction/Towards_SustainingMDG_Web1005.pdf
10. UN Millennium Project, Innovation: Applying Knowledge in Development, UK, EARTHSCAN, 2005, P. 126, P. 127
11. United NationsEconomic Report on Africa 2015, 2015, Addis Ababa, United Nations, P. 99
12. United Nations, Arab Development Challenges Report 2011, 2011, New York, United Nations, P. 2
13. United Nations, The Concept of Economic Diversification in the Context of Response Measures, 2016, P. 13, https://unfccc.int/sites/default/files/resource/docs/2016/tp/03.pdf
14. International Monetary Fund (IMF),Trade and Foreign Investment-Keys to Diversification and Growth in the GCC, 2018, P. 28 file:///C:/Users/amer/Downloads/pp120618gcc-trade-and-foreign-investment%20(3).pdf
15. African Development Bank, OECD and United Nations, African Economic Outlook 2014, 2014, P. 138, https://www.un.org/en/africa/osaa/pdf/pubs/2014afrecooutlook-afdb.pdf
16. International Monetary Fund, Economic Diversification in the GCC: Past, Present, and Future, 2014, https://www.imf.org/external/pubs/ft/sdn/2014/sdn1412.pdf

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