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Suggestion to Strengthen The Sustainable Competitiveness of The Higher Education Sector in the Kingdom of Saudi Arabia

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Abstract:

This study discusses how to strengthen the competitive competitiveness of the higher education sector in Saudi Arabia. The Kingdom's ranking in the Global Competitiveness Index has declined due to the low quality of higher education, which has the greatest impact on the national labor market, despite the increase in expenditure on higher education in the Kingdom of Saudi Arabia Saudi Arabia.

Based on this, the study aims at determining the competitive advantage and how this concept can be applied to the higher education sector in Saudi Arabia in order to achieve the most important determinants that contribute to the sustainable competitive advantage of universities in Saudi Arabia. On the success of universities in the Kingdom of Saudi Arabia in the application of the determinants and criteria of the concept of sustainable competitiveness, and the most important obstacles to the application of these determinants.

Keywords: Higher Education in Saudi Arabia; sustainable development; Competitiveness; Quality of higher education.

JEL classification codes: H52, I 21, I22

Introduction.

The Kingdom of Saudi Arabia has witnessed rapid qualitative and quantitative development in the field of higher education. The number of institutions of higher education has increased, the programs and disciplines offered have grown, and their techniques and educational patterns have developed. The systems of communication and open systems of creative production have emerged, in order to realize the educational process in Saudi Arabia, The relationship between higher education and competitiveness and thus the ability to succeed in development programs. Universities are key institutions that create knowledge and develop new skills that directly contribute to economic growth And the increase in productivity, and there is a need to interest in the development of knowledge and spending, and the transformation of the field of knowledge to the axis of competition between countries and societies that compete among themselves to acquire sources of power and cultural excellence.

In the context of the globalization trend and its potential impact on higher education, especially with regard to the consolidation of the concepts of competitiveness in open markets, and the imposition of this phenomenon of criteria and determinants to enhance the competitiveness of institutions of higher education not only at the national level but at the global level.

This requires a radical change in the content of curricula, teaching methods and training in higher education institutions to ensure high quality and distinctive educational programs that can compete with foreign universities and transnational institutions for national education systems.

Although the increase in spending on higher education in Saudi Arabia and the tendency of the majority of universities in Saudi Arabia to develop and implement general strategies to achieve their objectives to raise their competitiveness globally, the Kingdom ranks third in the Arab world - And the 24th in the Global Competitiveness

Index issued by the World Economic Forum for 2014-2015, which is one of the most important indices of measuring economic competitiveness to evaluate the competitiveness of 144 countries around the world, the rank of the Kingdom of Saudi Arabia The report pointed out that the main reasons for the decline in Saudi Arabia is due to the low quality of education which is linked to the strengthening of the labor market, and therefore the Kingdom is still unable to achieve a competitive advantage at the global level according to the indicators of the Global Competitiveness Report.(
(The Global Competitiveness Report2014-2015", World Economic forum)

Based on this, the problem of the study answers the following questions:-

- What are the challenges and difficulties that prevent the access of higher education institutions in Saudi Arabia to achieve a global competitive advantage?

What are the factors and determinants of achieving a sustainable competitive advantage for higher education in Saudi Arabia?

- What are the reliable indicators to assess the ability of higher education institutions in Saudi Arabia to achieve sustainable competitive advantage?
- How can a sustainable competitive advantage be achieved through a competitive strategy that focuses on the strategic resources of the higher education institution?

1- The conceptual framework of the study

1/1 Concept of Sustainable Competitive Advantage(SCA):

Day George ,1984 is the first to introduce the concept of sustainable competitive advantage, When considering the proposed strategies for continued long-term competitive advantage, he noted that different models could be obtained in the strategy to established, In 1985, Porter introduced a variety of long-term competitive advantage strategies (cost control, differentiation, and concentration strategies). However, Porter did not offer a formal definition of sustainable competitive

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advantage, Barney (1991) presented the closest definition of sustainable competitive advantage as continuity of benefits and the application of unique value creation strategies asynchronously with potential competitors unable to deliver those benefits. (Barney, J., 1991. 120).

Strand Sampo 's (2006) study defined the concept of sustainable competitive advantage through interconnectivity, reputation, innovation and strategic assets, Asli, Kucukaslan (2011) noted that competitive advantage is a product that is linked to both competitive advantage and strategic advantage. The competitive advantage is to meet the current needs of the market taking into account the future needs of future generations. (Asli, Kucukaslan, 2011:514)

According to Barney (1991), three factors affect sustainable competitive advantage: target market size, increased access to resources and customers, Coyne Kevin (1986) has shown that one of the most important conditions for achieving sustainable competitive advantage is that customers must know the most important advantages between particular products and competitors, and that these advantages cannot be achieved by competitors in light of available resources. (Coyne Kevin, P., (1986: 54).

, Barney (1991) noted that the main characteristics that must be met in the resources available to the organization to be able to achieve sustainable competitiveness of the most important of these characteristics are to be rare, valuable and difficult to imitate by competitors.

Hunt Shelby and Robert Morgan (1995) found that the organization must have a range of financial, material, legal and regulatory resources to be able to achieve a sustainable competitive advantage in the market. (Hunt Shelby, D. and M. Robert Morgan, 1995:14)

According to Nicol (2000), organizations that are able to combine resources and skills with core competencies can

successfully achieve sustainable competitive advantage in a consistent and unique way.(Nicole , Hoffman, 2000),

According to the study (peteraf, 1993), there are four main factors within the organization to achieve sustainable competitive advantages: the availability of asymmetric resources with competitors, the ability to deal with internal constraints and obstacles in the organization in innovative ways, the ability to mobilize resources to support the Society, overcoming competition constraints. (Peteraf, M., 1993:179).

There are therefore several fundamental differences between competitive advantage and sustainable competitive advantage:

- a- The competitive advantage is not only against current competitors but also competitors who are likely to enter the industry in the near future.
- b- The concept of sustainability of competitive advantage is not about how long the sector continues to enjoy this advantage but rather is determined by the inability of current or potential competitors to replicate that strategy.
- c- Sustainable competitive advantage is not always sustainable, but an advantage that cannot be traced through the efforts of imitation by other sectors. Unexpected changes that may make a source of sustainable competitive advantage at some point a useless resource for the company at another time.
- d- . Competitive advantage is not an access point that a particular sector can reach and then stop.
 1/2 Sustainable Competitive Advantage of Higher Education Sector:

We can clarify the concept of sustainable competitive advantage of higher education through the educational value chain as a tool used to identify potential problems, as well as to identify the value of technological elements added to educational processes, and to determine that value in higher education through universities, The added value of higher education, which adds to the educational value chain even if

it is not seen as a major activity within the education chain, and thus can be derived from some indicators that rely on determining the competitiveness of educational organizations. (Christine, Oliver,2012:713).

Education is the only way to spread knowledge through scientific research, which in turn can lead to the development of competencies which are sustainable and which lead to innovation that reflects positively on economic and social development, thus making it an effective tool in achieving and supporting the competitive advantage of the higher education sector.

Thus, the competitive advantage of higher education can be seen through an analysis of the value chain in tertiary education. Although there is a range of tasks that are carried out in any university in modern times, these tasks can be analyzed using the value chain concept, A research university can be seen as a network of activities that are centered around education, research and community service, and on a range of individual learning materials of educational opportunities and tools that enable students to gain knowledge of goal, skills, and shaping attitudes and target values. These activities can be grouped into three main groups: pre-education, post-education (postgraduate and graduate support).

Based on this, the competitive advantage of the higher education sector stems from the impact it has on the level of the student, the employee and the institution.

1.2.1 There are several factors to ensure the sustainability of the competitive advantage of higher education:

- Source of competitive advantage:

The continued competitive advantage is linked to the source of this feature. If the source of this advantage is the low cost of expenditure on the higher education sector, it is expected that the competitive advantage will not last for long. If the source is owning and operating the new technology or reaching a large and distinct level Of quality in the sector, competitive advantage may continue for a long time because it is difficult to waive that status.

There is no doubt that education needs good funding. The quality of the design of educational systems, the high efficiency of management, the curriculum, the teaching staff, the buildings and the various educational facilities, and the high quality of educational justice inputs are difficult to achieve or reach as long as funding opportunities And therefore the quality education in all societies around the world has been linked to its ability to finance well and provide the necessary funds to meet the obligations of the educational process and that education is a joint responsibility between the state and the NGO'S.

- Number of sources on which sustainable competitive advantage depends:

The more competitive the sources of competitive advantage, the longer it will last if the advantage is based on one source only. If the sources of competitive advantage of the higher education sector are as low as the cost and quality of the research, as well as research efforts at the regional and international levels, This sector has to maintain a continuous competitive advantage, because if it loses a source, it will be compensated by other sources. If the competitive advantage of the single-source sector, it will result in fluctuating stability of competitive advantage depending on this source. The importance of the human element in the system of growth and development has accelerated. Investment is

made in humans, mainly through education, generating substantial capital for individuals, families and communities alike in the form of social attitudes, knowledge and abilities.(Fergany,Nader ,2015). The concept of "human resource development", which is based on the fact that humans are a resource, like any other resource, and a component of production, has to be developed and sustained to maximize productivity. But the importance of human beings gradually increased until the concept of "human development, which sees human well-being as a human effort, not just one of its means.

- expenditure on R&D:

The term research and development is one of the most prominent terms currently used. This term has been defined by many international bodies and organizations, notably the Organization for Economic Co-operation and Development (OECD), which defined research and development as "creative work on a systematic basis Increase knowledge stocks including human knowledge, culture and society and use this knowledge repository to create new applications. (Belhadif, Rahma ,2015). The persistence of sustainable competitive advantage depends on the volume of R & D spending. The higher education sector continues to carry out further research and development, it has a renewed competitive advantage and therefore the sector must continuously develop its technological capabilities.

Research and development spending is always beneficial to the economy and achieves the highest possible returns. It is well known that developed countries give great importance to scientific research. The technical progress achieved has been the result of considerable financial expenditure in the fields of scientific research and development, Financial resources to finance the infrastructure of research institutions.

The low level of expenditure on R & D in developing countries is due to a number of factors. The most important of these is the emphasis on the teaching process rather than the scientific research, the weak participation of the private sector in supporting research and development, To weak cooperation between R & D centers and productive sectors, leading to the lack of research and development centers for applied research. (Fergany, Nader ,2015).

The association of research and development in public and private universities will contribute to encouraging investment to develop the research capacity of the faculty members to reflect on raising the level of university education. It also provides the state with specialized capabilities in various fields, which will affect all sectors of the public and private economy, improve productivity and improve performance efficiency.

Some studies in economic growth theories have linked the economic backwardness of developing countries compared to industrial countries to the level of technological development, which is lagging behind in developing countries compared to industrialized countries due to the low expenditure on research and development in developing countries or lack thereof. (Marzouki, Raja ,2011),

2- Competitive Higher Education in Saudi Arabia.

2.1 Determining the Competitive Position of Higher Education in the Kingdom of Saudi Arabia :

The report of the World Economic Forum in Davos, 2015-2016, pointed to the low ranking of many Arab countries in the quality of education. (Competitiveness Rankings report, 2016).

The World Economic Forum's Global Competitiveness Index (GCI) is based on the collection of public and private data on 12 core categories: Enterprise, Innovation, Macroeconomic Environment, Health and Basic Education, University Education and Training, Commodity Market Efficiency and Market Efficiency Work, capital market development, technological readiness, market size, business sophistication and innovation.

The report pointed to the position of Saudi Arabia, which ranked 54th among 140 countries included in the quality index.

Qatar ranked first in the Arab world and fourth in the world, followed by the United Arab Emirates in tenth place, Lebanon ranked 25th, Bahrain ranked 33th, Jordan ranked 45th in the world.

While Egypt ranked 139th in terms of the quality of primary education. It ranked 139th and 111st in quality of higher education and training. Qatar came in 27th place with a quality rate of 5.1, also ranked first in Arab world.

2/2: Higher Education Output and its Role in Development in the Kingdom of Saudi Arabia:

The higher education sector is linked to sustainable competitiveness and thus the ability to achieve the success of economic and social development programs. The higher education sector and its various institutions are working on

developing new knowledge and skills, which is related to the qualification of its graduates represented in the labor market and adapting them to its requirements: Economic growth and increased productivity.

There are several observations to be noted, as referred to in the report of "Higher Education and Building a Knowledge Society" issued by the Ministry of Higher Education 2011 in this regard, including: (General Authority for Statistics, www.stats.gov.sa)

- a- The percentage of PhD holders of faculty members has decreased during the past five years, despite the large increase in their numbers, where their percentage in the year 1429 (47.5)% and in 1434 H dropped to (43%), This decline is a negative indicator when talking about the efficiency of the educational system.
- b- The increase in the demand of Saudi postgraduate students during the period 1429-1435 AH on the five fields acquired about 67.8% of the total numbers are respectively training teachers, humanities, education sciences, Islamic studies business and management by about 22.4%, 16.8 12.8%, 9.3% and 6.5%, respectively, with an annual average of about graduate 4251,2184, 1664, 1211.0 and 845 respectively.
- c- The decrease in the number of Saudi graduate graduates in the fields of environmental protection, veterinary medicine, production and conversion industries, agriculture, forestry and fishing, the main programs were about 0.03%, 0.1%, 0.1, 0.3%, 0.4% He scored about 6, 9, 15, 44, and 53 graduated respectively.
- d- Lack of enrollment of Saudi students in the postgraduate studies in the areas of personal services, transport services, which means declining turnout at that stage.
- e- Increasing the demand of male students in the post-graduate period during the period 1424-1430 AH to enroll in five areas, accounting for 70.1% of the number

- of graduates are respectively the sciences of education, Islamic studies, humanities, teacher training, business and management by 18.0% 14.2% 13.6%, 12.8%, 8.5% of the total numbers, with an annual average of about 981, 777, 742, 700 and 461 graduates, respectively.
- postgraduate f- Low enrollment of students in veterinary environmental protection, medicine. agriculture, forestry and fishing. Major programs: Education, Mathematics and Statistics, Journalism and Media, Law, Arts, Physical Sciences, Major Programs. 0.03%, 0.1%, 0.2%, 0.3%, 0.3%, 0.4% of the numbers, with an annual average of about 20, 45, 50, 51 and 75 graduating students.
- g- Lack of demand for male Saudi students to join the fields of manufacturing and conversion industries, personal services, transportation services in the post-graduate level, which means declining turnout at that stage.
- h- The increase in the number of female students in postgraduate studies in the fields of higher education, which accounts for 80.4% of the graduates, is in addition to the training of teachers, humanities, education sciences, mathematics and statistics by 29.4%, 19.1% 12.3%, 7.4% With an annual average of about 2217, 1442 and 930,555 graduates respectively.
- i- The decline in the enrollment of Saudi female students in the post-graduate level in the fields of agriculture, forestry and fishing, architecture and construction, environmental protection, production and transformation industries, and the main programs, where they reached 0.03%, 0.1%, 0.1%, 0.2% % Of the numbers, the annual average of about 1, 1, 4, 15, 20 graduate, respectively.
- j- Lack of demand for Saudi female students to join the fields of law, engineering and engineering industries, veterinary medicine, transport services in the

postgraduate stage, which means declining turnout at that stage.

The report shows that the proportion of male Saudi students in the areas of health and social services, engineering and agriculture was below the global average, and we see that it is lower in the areas of social sciences, business, law, education.

The percentage of students in the humanities and arts field has surpassed the global average, and the Arab countries significantly, while the percentage in the other major fields of education is similar to the global average. The results of the previous statistical analysis indicate that the higher education sector is still in need of tangible development, especially if we add that the most important challenges are difficult to match the skills required for graduates to succeed in the current labor markets. In addition, the outputs of higher education are difficult for them to analyze, solve problems, innovate and create knowledge and technology, as they must be adapted to the requirements of modern change and globalization, especially with regard to the design and development of curricula and courses, and acceptance criteria.

3- A proposed methodological framework for enhancing sustainable competitiveness Higher Education in Saudi Arabia:

In this regard, we aim to present a proposed framework for enhancing the sustainable competitiveness of the higher education sector in the Kingdom of Saudi Arabia. The proposal stems from a system that includes a number of components that can achieve this goal, as shown in Figure 1.

Figure (1) Methodological map to strengthen the sustainable competitiveness of higher education in the Kingdom



Source: Prepared by the researcher

3/1: Excellence and innovation:

It is related to the exploitation of new ideas to be presented to society where higher education is in the service of society and vice versa. Excellence and innovation are among the main sources in building the sustainable competitive advantages of the higher education sector.

This is done by providing students with a distinguished educational experience, supporting the members of the academic body so that

they can perform according to the desired quality standards, and provide the learning environment in support of diversity and creativity and the design of educational activities that support the creativity and thinking excellence of all parties in the educational process.(AlFoqahaa, Sam, 2012).

Excellence in learning and learning practices are essential to higher education institutions that include teachers always to improve student learning.

The concept of availability refers to the extent to which higher education institutions have access to appropriate technology, materials, facilities, tools and human resources that enable long-term sustainable competitive advantage and thus distinguish higher education institutions. (Driscoll, Elizabeth ,2013).

3/2: Quality and Academic Accreditation:

In this axis, the goal of government education is in line with special, profit-based education. The knowledge-based field of knowledge, which in turn transfers knowledge to future generations and scientific research that increases and modernizes knowledge, is the role of specialized human cadres (faculty and assistants) In light of established standards of quality and academic accreditation; So as to design, develop and adopt standards and developmental standards to encourage, expand, diversify, balance and renew higher education and achieve its quality as the highest framework for human development.

The Quality Index is measured and monitored through the performance of teaching staff, the performance of teachers in scientific research, performance in applied research, experience and practical skills in teaching academic staff.

All this relates to technology as a fundamental strategy in the academic institution. It supports creativity and innovation, helps develop existing graduates and introduces new ideas and makes them more distinguished than their competitors, which is an obstacle for other institutions to do the same. Which enhances the sustainable competitiveness of the higher education sector. (Hegazy ,Hanaa ,2015: 51)

In light of the fluctuations in the world oil market and the fluctuation of its prices from time to time and thus a challenge to the

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expenditure on higher education systems, the importance of the private sector as a source of funding is parallel to the main source as government higher education has far-reaching returns. Private Higher is not at the expense of quality and academic accreditation standards, while adapting its curricula and decisions to suit the actual needs of the labor market without paying attention to profitability gains at the expense of quality.

3/3: Superior scientific research:

Scientific research is a reflection of the requirements of the society. The scientific research is concerned with providing the solutions facing the society, namely theoretical and applied developmental research in various fields.

There are a number of challenges facing researchers in various institutions of higher education, including:

- a- Lack of full-time researchers for scientific research where researchers are teaching in different educational institutions, which affects the researcher's focus.
- b- Individualism to conduct research and the scarcity of the formation of integrated research teams, Therefore, in order to contribute to scientific research in the promotion of sustainable competitiveness of the higher education sector, it is necessary to separate the performance of teaching staff on the performance of teachers in scientific research, in order to strengthen the competitiveness of applied research for researchers with experience and practical skills while not integrating them in teaching with academic staff.

Thus, the institutional culture of higher education institutions is characterized by its uniqueness in serving the local community, cooperation with private institutions that support different research centers in educational institutions, and thus the development of the total education, curriculum development and the promotion of the sustainable competitiveness of the higher education sector.

One study found that the expenditure on scientific research and development for the year 1434/1435 e in Saudi Arabia amounted to (4.24) billion riyals, which is equivalent to (87.0)% of the GDP which reached (794) 2) trillion real. In terms of the distribution of expenditure according to the nature of the research, the results showed that applied research came at the top with 2.43% of the total amount approved, followed by basic research by 3.38%. The distribution of expenditure by field indicates that natural sciences ranked first by 3.35%, Followed by Engineering and Technology by 7.30%. (Ministry of Higher Education, 2014)

Saudi Arabia ranks first in Arab R & D spending, and the continuation of this role contributes to raising the competitiveness of education through the system.

3/4: The private sector's response to the rehabilitation of higher education outputs:

The opening of the doors of public and private sector institutions to intensive training for students during their studies to qualify for their subsequent transfer from the academic field to the labor market.

Therefore, there is a need for the participation of the private sector in the service of the higher education sector to achieve the objectives of sustainable competitiveness of the sector, and thus achieve the objectives of development, economic and social state.

Through the training of higher education outputs, the needs, skills and requirements of the labor market are identified in an adverse feeding that reflects the needs of the labor market by the private sector. The universities then examine what the market needs and design its approaches that are appropriate to these societal needs.

Therefore, the relationship is divided between society and institutions of higher education. Therefore, the strengthening of the sustainable competitiveness of the higher education sector comes through its interaction with the requirements of society and approach it and identify its problems and clarify the appropriate solutions to them. The finance sector can contribute to this through banks and various financing institutions.

3/5: Matching outputs of higher education to the labor market:

This is accomplished by working on the preparation of an educational system in which the theoretical aspect and the practical aspect conform to the standards and requirements of the labor market, with the need to adjust the curricula in a manner that does not prejudice the clear definition of the utilization and correlation of these courses with the labor market and its needs.

The extent to which the output of higher education is matched to the labor market is determined by determining the employment rate of new graduates, the percentage of students who complete their higher studies, the success rate in the qualification / occupation tests (admission to the job), the knowledge and abilities of the graduates, The educational institution is able to enter the labor market through the graduation of an efficient cadre capable of adapting modern technology and the challenges of globalization.

Results and Recommendations:

1- There is a clear difference between the concepts of competitive advantage and sustainable competitive advantage.

- 2- The Arab countries in general and the GCC countries in particular seek to strengthen the competitiveness of the higher education sector, and the occupation of Qatar as an advanced position in the competitiveness report contributes to motivating the rest of the GCC countries to take advanced positions.
- 3- The low turnout in technical specialties among male and female students in the Kingdom of Saudi Arabia has resulted in a shortage of graduates qualified for these jobs despite the need of the market for their specialties.
- 4- The Kingdom's higher education sector should strive to achieve sustainable competitive advantage through a system that includes many integrated axes.
- 5- Developing the curricula to suit the needs of the labor market.
- 6- Participation of the private sector in supporting and funding research projects for various educational institutions, benefiting the society and the higher education sector.
- 7- Work to involve the labor market in determining the outputs of the educational process, which will develop feedback from the community to institutions of higher education.
- 8- Work to motivate human cadres to reach a stage of excellence and set standards for them.
- 9- Quantitative future studies can contribute to measuring the competitive advantage of the higher education sector through appropriate indicators for quantitative models.

References:

 AlFoqahaa, Sam, (2012), "Adopting excellence strategies in learning and education and their role in achieving the competitive advantage of sustainable higher education institutions An-Najah National University Case study ", Arab Organization for Administrative Development, In the period 24-26 April 2012 at the Hashemite University - Jordan.

- Asli, Kucukaslan, (2011) The value of environmental management and green product design within sustainable development and competitive strategies of the companies, African Journal of Agricultural Research Vol. 6(1), pp. 514,59- January,.
- Barney, J., (1991), Firm resources and sustained competitive advantage. Journal of Management, 17(1): 99-120.
- Belhadif, Rahma (2015), The Reality of Research; Development and Innovation in the Arab Maghreb Countries, International Islamic Economy Journal, http://giem.kantakji.com/article/details/ID/651#.WTgEBZKG
 PIU.
- Christine, Oliver.(2012), Sustainable Competitive Advantage: Combining Institutional And Resource, Strategic Management Journal, Vol. 18:9, 697–713.
- Competitiveness Rankings report on: http://reports.weforum.org/global-competitiveness-report-2015-2016/competitiveness-rankings/.
- Coyne Kevin, P., (1986), Sustainable competitive advantage: What it is, what it isn't. Business Horizons, 29(1): 54-61.
- Driscoll, Elizabeth (2013), "A Lesson Plan For Sustainability In Higher Education", American Journal Of Business Education – , Volume 6, Number 2 March/April 2013.
- Fergany, Nader ,(2015), Contribution of Higher Education in Development in the Arab Countries, Almishkat center, on line: www.almishkat.org.
- General Authority for Statistics, https://www.stats.gov.sa/sites/default/files/education_and_tra ining survey 2017 ar.pdf.
- Hegazy ,Hanaa (2015), Institutional Performance Indicators and Education Reform,, The Anglo-Egyptian Library, Cairo, p. 52.

- Hunt Shelby, D. and M. Robert Morgan, (1995). The comparative advantage theory of competition. Journal of Marketing, 59(1): 1 -14.
- Marzouki, Raja (2011), R & D spending and its role in achieving sustainable development, Economic Journal on the website : http://www.aleqt.com/2011/03/21/article_517196.html .
- Ministry of Higher Education, (2014), the reality of spending on scientific research and development in Saudi Arabia, https://www.moe.gov.sa.
- Nicole, Hoffman (2000), An Examination of the "Sustainable Competitive Advantage" Concept: Past, Present, and Future, http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.200.7948&rep=rep1&type=pdf.
- Peteraf, M., 1993. The cornerstones of competitive advantage: A resource-based view. Strategic Management Journal, 14(1): 179-191.
- World Economic forum ,The Global Competitiveness Report2014-2015.