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Reality of Innovation Indicators in Algeria During the Period (2011-2015): An Analytical Study Using the Global Competitiveness Reports (GCR's)

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Abstract This research aims to analyze the reality of innovation in Algeria during the current period, For this reason the researcher used the Global Competitiveness Reports (GCR's) issued by the World Economic Forum (WEF) during the period (2011-2015) through the study and analysis of the following indicators: capacity for innovation, quality of scientific research institutions, company spending on R and D, university – industry collaboration in R and D, government procurement of advanced technique products, availability of scientists and engineers, PCT patents, At the end the study concluded that there is a weakness of the various innovation indictors in Algeria, In the light of this result the researcher presented a set of recommendations that contribute to encourage the different innovations indicators in Algeria.

Keywords Innovation, Innovation Indicators, Global Competitiveness Reports (GCR's), Algeria

1. Introduction

If the 17th-century physicists assert that agriculture is the origin of wealth, the business school advocates of the 18th century assert that trade and precious metals are the ones that generate wealth, and the pioneers of the industrial revolution believe that industry is the source of wealth, Innovation has been seen as an essential tool for generating and sustaining wealth. Innovation has become the fundamental tool for enterprises and nations alike to achieve leadership, growth and competitive advantage in a new, complex and competitive environment.

Innovation has become an urgent need for all nations and developed and developing societies alike. In Algeria as well, innovation has become a topic of increasing interest to many parties. Many international and even national reports categorize the indicators of innovation in Algeria with negative or Under zero, despite the great potential of Algeria, which raises a lot of controversy and question marks, and this is what we will try to discuss and analyze through this study, according to the following axes:

- Methodology of the study.
- Previous studies.
- The theoretical framework of the study.
- Analytical framework of the study.
- Results and recommendations.

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2. The Problem of Study

In recent years, the subject of innovation has attracted the attention of many researchers and scholars. This interest is due to the importance of innovation, which has become the unique strategic weapon that enterprises use to win competitive competition for survival and growth in the market. Innovation is also an effective element in developing States and make further progress in various areas.

With the advent of globalization and the expansion of its areas in the world, there have been developments and radical changes in all fields, which has contributed to deepen the gap between developed and developing countries to the extent that it is difficult to reduce them, developed countries have reached the level of access only thanks to the ability to innovation and innovation, Scientific, economic and social problems, while the failure of developing countries resulted from their inability to innovate and innovate, and the inability to bring new to face the various contemporary challenges.

In this context, as one of the developing countries, and facing these new challenges, Algeria is forced to work as much as possible to improve its innovative capabilities and to encourage new and innovative ideas. In this context, we are currently questioning the reality of innovation indicators in Algeria during the current period and the classification it

has achieved. Specialized international reports, which will form the focus of this study.

2.1. Hypotheses of the Study

Based on the study problem, the following hypotheses were formulated:

First Hypothesis: Innovation plays a big role in the success and sustainability of institutions and the progress and development of countries and societies.

Second Hypothesis: Algeria's indicators of innovation are very positive according to the Global Competitiveness Reports (GSR's) during the period (2011-2015).

2.2. The Study Model

In order to facilitate the process of answering the problem of the study and verifying its various hypotheses, the researcher developed a model for his study, as illustrated in Figure (1).

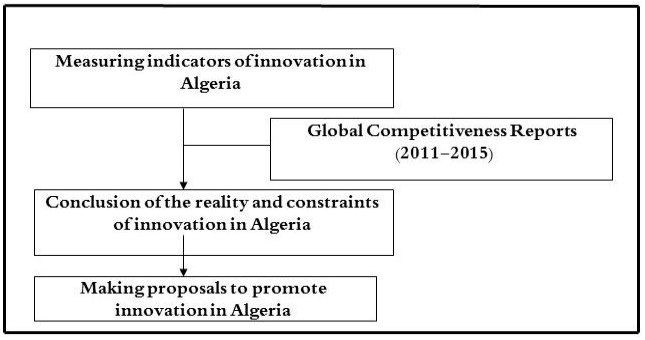

Figure (1). The Framework of the Study (*Source: Prepared by the researcher.*)

2.3. Importance of the Study

The importance of this study stems from the importance of the subject of innovation itself as one of the modern topics in contemporary administrative literature, both in terms of economic theory and intellectual and methodological frameworks, or at the level of practical applications. The importance of this study stems from the importance of the role played by innovation in institutions and countries alike, where it maximizes value and contributes to innovation and innovation, thereby building sustainable competitive advantages.

The study also draws on the paucity of research and studies at the national level in this field. This study will pave the way for subsequent studies and open new research avenues on this vital subject.

2.4. The Objectives of the Study

This study aims to achieve the following set of objectives:

4.1 To highlight the growing importance of innovation at the institutional and State level.

4.2 To identify the reality of innovation in Algeria during the current period.

4.3 Identify the most important obstacles to innovation in Algeria and draw the most prominent proposals to promote it.

4.4 Trying to raise awareness among decision-makers of the importance and feasibility of innovation in driving development in Algeria.

3. Methodology

In our study of this subject, we relied on the analytical descriptive approach by studying and taking note of various aspects of the subject by collecting and analyzing data and information, and extracting the most prominent results.

In order to prepare this research, the theoretical aspect of the desk survey was based on reference to the various references and previous studies available in Arabic, English and French from books, periodicals, memoirs, etc., and on the analytical side, it relied mainly on a set of indicators of innovation and derived from the Global Competitiveness Reports during the period (2011-2015). It was also adopted to a lesser extent on a set of statistics obtained by the researcher from several local and international reports and websites that serve the studied topic.

4. Literature Review

4.1. Previous Studies and the Characteristics of the Current Study

The researcher has conducted a survey of the various researches and studies on the subject of innovation in Algeria. If we exclude research and studies that have dropped the subject of innovation on different Algerian institutions, we receive very few studies that dealt with the issue of innovation indicators in Algeria at the macro level. The most prominent and recent of these studies:

4.1.1. Study of (Al-Zoubi, 2011)

The objective of this study is to identify the most important factors affecting innovation as a leading input in the knowledge economy. In order to achieve the above objective, this study came in the form of a comparative study between Algeria and Jordan. The researcher collected a set of data related to the two countries' (2010), it was later used to construct a standard model of 16 variables in the innovation activity of the two countries. After the analysis, the results showed that there is one factor, the expenditure on innovation, which has the greatest impact on innovation activity in both countries.

4.1.2. Study of (Duis and Bekhty, 2012)

This study mainly sought to assess the process of innovation in Algeria during the period (1996-2007). In order to achieve the above objective, the researchers studied the patent data registered with the INAPI in two phases. The first phase, The invention was granted to Algerians during

the period (1996-2007) and then analyzed statistically, and the second stage in which the researchers classified patents according to the International Patent Classification (IPC) code (2010.01) prepared by the International Intellectual Property Organization (OMPI). The results revealed that mostInnovations in Algeria are carried out by individuals (76.90%), followed by private and public institutions (23.10%). This gives a clear idea of the quality of the innovations in Algeria and the means of financing them. This has made a large part of these innovations find their way to industry, In most developed countries according to researchers.

4.1.3. Study of (Boumediene and Chitwan, 2014)

The objective of this study is to analyze the innovation policy in Algeria and its indicators, and to highlight the extent to which the innovation policy can be relied upon to promote Algerian exports outside the hydrocarbons sector. To achieve the above objective, the researchers relied on the analytical descriptive approach by analyzing the impact of innovation on the growth of Algerian exports outside the hydrocarbons sector Two main indicators: the number of patents and R & D expenditures. Finally, the researchers found a number of results, notably the absence of a clear national strategy for innovation development in Algeria, which resulted in the non-activation of a national system of innovation Thus dedicating the dominance of the hydrocarbon sector on the Algerian exports.

4.1.4. Study of (Lahmer, 2015)

The objective of this study was to analyze the readiness of the Algerian economy to integrate into the knowledge economy. To achieve the above objective, the researcher adopted the comparative analytical descriptive method by analyzing a set of data on the indicators of knowledge economy (ICT index, education index, innovation index, (2003-2013) based on the World Bank methodology (WB). After the analysis and comparison process, the results showed that Algeria is still far from the knowledge economy due to several shortcomings Zaha structural imbalance of the economy and the knowledge gap, however, Algeria is pursuing long-term strategies for the development of knowledge with a focus on achieving real growth rates according to the researcher.

The current study is distinguished from previous studies in terms of their analytical framework, which is based on a set of the latest WEF data and statistics in the Global Competitiveness Reports (2011-2015). The Global Competitiveness Reports are effective indicators for measuring capacity and tools to examine the strengths and weaknesses of business data. It is also a tool for guiding the economic policies of different countries. As for the innovation sub-index, which is based on this study and published in the Global Competitiveness Reports, Credibility to express the real situation of innovation in different countries and nations as to take into account all the variables denominated innovation activity at the level of these countries.

4.2. The Theoretical Framework of the Study

4.2.1. The Concept of Innovation and Its Characteristics

The concept of innovation has attracted the attention of many writers of management and economics in recent years, and this attention is undoubtedly due to the importance of innovation as a complex, multi-dimensional, multidimensional phenomenon affecting all fields. (Abu al-Nasr, 2002, 90)

Innovation is a Latin word composed of the terms "In" and "novare" which means "putting something new and different". (Bessant, 2009, 06)

The concept of innovation as a modern term is attributed to the Austrian economist Joseph Schumpeter (1912), who first defined innovation as "the result of the creation of a new method or method of production that changes all components of the product or how it is designed". (Lachman, 1993, 15)

The definitions of innovation varied and the views differed in the definition of what it was because of the different views and areas of interest of researchers and specialists. However, the most prominent definitions of the concept of innovation can be presented in Table (1) below:

Table (1). The most prominent definitions for the concept of innovation

(Researcher, Year, Page)	Introduction
(Mohr, 1969, 112)	"Successful entry into which the process or idea is acceptable and properly implemented by the institution".
(Zaltman et al, 1973, 10)	"Every idea, practice or invention leads to everything that is new to the institution that adopts it."
(George and Down, 1976, 701)	"Incorporating tools or means adds new to its compact organization."
(Hage, 1980, 188)	"This activity involves a high degree of risk and a fundamental change to the enterprise with close contact with the technological factor."
(Drucker, 1998, 514)	"Orderly abandonment of the old".
(Cooke, 2001, 45)	"This is the process by which new products and production methods are introduced through several stages of innovation, development, experimental production, commercialization and commercial production. This activity is supported by private sector institutions."

(Researcher, Year, Page)	Introduction
(Najem, 2003,22)	"The enterprise's ability to reach everything that is new adds greater value and is faster than competitors in the market."
(Trott, 2005, 15)	"Managing all human activities, including the creation of new ideas, the development of technologies, and the production and marketing of new products."
(Tidd et al, 2006, 03)	"The ability to identify links, discover opportunities and benefit from them. Innovation not only opens new outlets, but also provides new ways to meet the needs of new markets."
(Lambin et Demoerloose, 2008, 355)	"A new mix of means used by the institution to destabilize the stalemate and the old situation by creating a new concept of product or service."
(Meier, 2009, 104)	"The result of applying new ideas and research".
(Martin, 2009, 22)	"The ability to create and configure new product technology or production method and make changes using current technology."

Source: prepared by the researcher based on the references mentioned in the table above.

Whatever definitions of innovation vary, they remain in the context of the comprehensive definition presented by Zaltman et al. (1973, 14-15) as "the activity that involves: the provision of new products or services, new production processes, organizational structure New, creative people, innovative policy ".

The researcher fully agrees with the previous definition as this definition is one of the most comprehensive definitions of innovation. It refers to the integration of innovation activity into all productive, marketing, organizational and human functions at the micro and macro levels.

Based on all of the above, the main characteristics of innovation can be summarized as follows: (Al-Sakarna, 2008, 48)

1. Innovation means differentiation: that is to say what is different from competitors, where it creates a market segment through the unique response of its needs through innovation.
2. Innovation represents innovation: the introduction of the new, in whole or in part, and thus constitutes a source in order to maintain and develop the market share of the enterprise.
3. Innovation is the ability to discover opportunities: based on a new reading of needs and expectations, and a creative vision to discover the new product's ability to create effective demand and to discover the new market that is still unknown.
4. Innovation is to be the first mobile in the market: that is to be the first innovator to reach the idea and the product and the market for others, and even in the case of improvement is the first to introduce the product amendments, and this is the advantage of innovative institutions.

4.2.2. The Importance of Innovation

Innovation has become a standard in light of the degree of progress and progress of nations. It has become seen as a source of wealth and an important factor in advancing economic and social development. Innovation has become an important indicator, which helps to a large extent to infer the progress of institutions and States Both. (Al-Sirafi, 2003, 38)

Porter emphasized that institutions can achieve competitive advantage through innovation. Furthermore, Schermerhorn emphasizes in his book "Events" that: Innovation is a competitive advantage. (Star, 2003, 20). In general, the importance of innovation can be summarized in the following points: (Mustafa, 2002, 260) (Sulaimani, 2007, 36).

- Develops and supervises personal skills in thinking and collective interaction through brainstorming teams.
- Increase the quality of decisions in various technical, financial and marketing fields.
- Improves product quality, helps to find ways to activate and increase sales volume.
- Helps to create and strengthen the competitiveness of enterprises and nations.
- Has a major role in industrial development is the main engine of growth and development in both developed and developing countries.

5. Analytical Framework of the Study

The Global Competitiveness Reports measure factors that drive the prosperity and productivity of more than 140 countries around the world and rely on three key indicators to measure the country's global competitiveness:

- The basic requirements of the economy.
- Improved economic efficiency factors.
- Factors of creativity and evolution.

These include: infrastructure, macroeconomic environment, health and basic education, university education and training, efficiency of commodity markets, labor market efficiency, capital market development, technological readiness, market size, business development, Innovation.

The Global Competitiveness Reports are reports issued by the World Economic Forum (WEF) annually since 2004. These reports are an important economic reference for

business, institutions and countries alike in shaping their economic policies and seeking to improve their competitiveness.

Algeria ranked 87th in the latest Global Competitiveness Report issued by the World Economic Forum for 2015 out of 148 countries covered by the report. Algeria scored 4 out of 7 points, Algeria has been in the last five years in table (2) below:

Table (2). Algeria's results in the Global Competitiveness Reports (GCR's) in the last five years

Point / 7	Rank	Years
4.0	87	2011
3.7	110	2012
3.8	100	2013
4.1	79	2014
4.0	87	2015

Source: Prepared by the researcher based on Global Competitiveness Reports (2011-2015).

In table (2) above, it is clear that Algeria has achieved weak results in the global competitiveness reports over the last five years, as they occupied lagging positions compared to the possibilities they possess. This is evidence of weakness and failure of national strategies related to the competitiveness of the state. Stability of the general economic environment, poor interest in R & D, weak private sector participation, budget deficit, weak intellectual property protection, fragile infrastructure, weak trade and financial climate indicators,

With regard to the innovation sub-index to which we will focus, Algeria has occupied the positions shown in table (3) below in the last five years:

Table (3). Algeria's results in the GCR's innovation sub-index for the past five years

Point / 7	Rank	Years
2.4	132	2011
2.1	141	2012
2.4	141	2013
2.6	128	2014
2.8	119	2015

Source: Prepared by the researcher based on Global Competitiveness Reports (2011-2015).

From table (3) above, the occupation of Algeria to rank (132) year (2011) by (2.4) points is very late, and then record the continuation and aggravation of the negative results, where Algeria occupied the position (141) in the next two years (2.1 points) Respectively, but in recent years Algeria's ranking has improved somewhat by occupying (119) by (2.8) points in 2015, but this improvement is not enough at all. The world and even the Arab countries in the sub-index of innovation, due to the weakness of all the seven sub-indices of this index achieved by the Air, and which are described in detail as follows:

1. Sub-index of capacity for innovation

Table (4). Algeria's results in the innovation competitiveness sub-index (GCR's) in the last five years

Point / 7	Rank	Years
2.0	138	2011
3.3	143	2012
2.3	141	2013
2.7	143	2014
3.3	126	2015

Source: Prepared by the researcher based on Global Competitiveness Reports (2011-2015).

It is noted that according to the results of Table (04) above, Algeria received very late positions in the innovation capacity sub-index where it was replaced in 138 (2011) with a total of (2.0) points. This is why Algeria is actually reducing the ranking of the world countries in the sub-index of innovation capacity, despite improving its ranking in 2015, where it ranked 126 (3.3) points out of (7) points. These negative results can be attributed to the nature of innovation policy in Algeria, which is usually assigned to universities, institutions and research and development centers of the Ministry of Education (MESRS), these universities and institutions have proved their failure to be able to provide innovations and innovations. This is evident in the field of registered patents. Of the 84 universities, institutions and research centers of the Ministry of Higher Education and Scientific Research only (29) Of which only 110 patents were granted, while the remaining 55 did not provide a single patent. (DGRSDT, 2013, 16-17).

2. Sub-index for expenditure on R & D activities

Table (5). Algeria's results in the R & D expenditure sub-index within GCR's in the last five years

Point / 7	Rank	Years
2.0	139	2011
1.8	143	2012
2.0	147	2013
2.2	138	2014
2.6	122	2015

Source: Prepared by the researcher based on Global Competitiveness Reports (2011-2015).

The results of Table (5) above also show Algeria's occupation of late salaries under this sub-index on R & D expenditure. Algeria ranked (139) in 2011 (2.0) points, which is the pre-final position in 2013, to improve Algeria's ranking somewhat by 2015 by occupying (122) by (2.6) points, and the series of negative results can already be attributed to the weakness of the state expenditure in research and development, Only 0.1% of GDP during the period 2005-2014 (UNDP, 2015, 243), and the percentage of expenditure on education in Algeria (4.3%) of GDP During the same period.

3. Sub-index of quality of scientific research institutions

Table (6). Algeria's results in the sub-index of the quality of scientific research institutions in GCR's in the last five years

Point / 7	Rank	Years
2.5	126	2011
2.1	141	2012
2.5	133	2013
2.6	127	2014
3.0	112	2015

Source: Prepared by the researcher based on Global Competitiveness Reports (2011-2015).

Based on the results of Table (6) above, the occupation of Algeria is shown to be slightly closer to the average in terms of the sub-index of the quality of scientific research institutions, where Algeria ranked (112) in 2015 (3.0) points, despite the negative results completely in the previous four years In this context, the number of scientific research institutions in Algeria registered a quantum leap to 47 universities, 10 university centers, 4 higher schools, 1 high school for technical education, 17 national high schools, And (9) preparatory schools (www.mesrs.dz, consulté le 24/10/2016). This noticeable improvement was accompanied by a rise in the number of professors and researchers, which led to the improvement of some outputs of the research (Published in 2008) to (2302) published in 2014 with a total of (12577) published during the period (2008-2014), ie (58) per million people (UNESCO, (778). However, we note several disadvantages in the field of the outputs of scientific research in Algeria. If we look at the ranking of Algerian universities, we find that it is a very late arrangement. The best university in Algeria is the University of Science and Technology, Houari Boumediene - Oran, the center (2099) Abu Bakr Belqayed - Tlemcen in the center (2213) in the world, and then the University of Jilali land - Sidi Bel Abbes in the center (2675) globally within the classification (Webometrics) world. (www.webometrics.info, consulted 22/10/2016)

4. Sub-index for cooperation between universities and institutions

Table (7). Algeria's results in the sub-index for cooperation between universities and institutions in GCR's in the last five years

Point / 7	Rank	Years
2.3	136	2011
1.9	144	2012
2.1	146	2013
2.3	137	2014
2.3	136	2015

Source: Prepared by the researcher based on Global Competitiveness Reports (2011-2015).

Table (7) above also shows the lagging arrangement of Algeria in this sub-index of cooperation between universities and institutions in the field of research and development. Algeria ranked very late, reaching (144) years (2012) and (146) years (2013) (2.1) out of (7) points. This indicates that the relationship between the Algerian University and the economic environment in general is very different. Cooperation between universities and institutions in Algeria is very limited and in very limited areas. Clearly through weak agreements between the two parties in terms of cooperation in the field of research Development and exchange of experience, and even the agreements between these universities and institutions are often very formal, which prevents fruitful cooperation and at the same time a major problem facing Algerian researchers and students is the difficulty of applying their research and studies on the ground, as evidenced by poor cooperation between Algerian universities and institutions from (14.10%) of the total unemployed in Algeria in 2015 (ONS, 2015, 01). If there was greater cooperation, all these problems would be contained.

5. Sub-index of government exports of high-technology products

Table (8). Algeria's results in the government high-technology exports sub-index of the Global Competitiveness Reports (GCR's) in the last five years

Point / 7	Rank	Years
2.4	137	2011
2.2	142	2012
2.7	127	2013
3.1	99	2014
3.1	92	2015

Source: Prepared by the researcher based on Global Competitiveness Reports (2011-2015).

It is noted from table (8) above that Algeria also achieved lagging results in this sub-indicator of government exports of high-tech products. It was replaced by (142) years (2013) by (2.2) points, but the ranking of Algeria has improved in recent years Algeria ranked close to the average (99) and (92) respectively in 2014 and (2015) with a total of (3.1) points. These negative results can be attributed to the weakness of Algerian exports outside the hydrocarbon sector in general, which amounted to (2.7) % (2014) (Banqued'Algérie, 2015, 166). The previous figure includes various exports, including industrial products estimated at 0.0% 5%) of total exports with a record improvement of this percentage from last year (0.04%).

6. Sub-index for availability of scientists and engineers

Table (9). Algeria's results in the sub-index for the availability of scientists and engineers in the Global Competitiveness Reports (GCR's) in the last five years

Point / 7	Rank	Years
4.4	44	2011
4.0	72	2012
4.1	68	2013
4.2	61	2014
3.9	74	2015

Source: Prepared by the researcher based on Global Competitiveness Reports (2011-2015).

Table (9) above shows Algeria's occupation of acceptable and intermediate results in the sub-index on the availability of scientists and engineers. Algeria ranked 44th globally in 2011 with 4.4 points out of 7 points. (42) points. The accepted results obtained by Algeria in this sub-indicator can be attributed to the increase in the number of university professors in Algeria during the period (2011-2014) 45474) is a university professor to (52215) university professor (ONS, 2014, 30), and these various professors are still different research activities b They are considered permanent or temporary researchers, but despite all this, we find that Algeria is facing a major obstacle in the field of containing all scientists, engineers and university competencies. This obstacle is exacerbated by the phenomenon of brain drain and competencies. Several sources point to very frightening figures. At the beginning of 2015, Nearly a quarter of a million brains have left Algeria to work in several other countries, particularly European ones. (www.elbiled.net, consult é le 25/10/2016).

7. Sub-index of patents

Table (10). Algeria's results in the sub-index of patents in the Global Competitiveness Reports (GCR's) in the last five years

Point / 7	Rank	Years
0.0	85	2011
0.2	91	2012
0.1	99	2013
0.2	97	2014
0.2	92	2015

Source: Prepared by the researcher based on Global Competitiveness Reports (2011-2015).

The results of Table (10) above show the occupation of Algeria to the results of the medium to weak under the sub-index on patents, where Algeria ranked (85) in 2011 (rate) 0.0 patents per million people, (99) years (2013) and (92) years (2015) by 0.1 and 0.2 patents per million people, respectively. However, there is a clear improvement in the number of inventors and the number of registered patents , Where the number of Algerian inventors in 2011 (about 603) inventors who submitted (2860) patents, bringing the number to (644) inventor introduced The number of inventors and patents of Algerian researchers living in Algeria has increased to (2967) patents in 2012, bringing them back to (711) inventors who submitted (3204) patents in 2013 (DGRCDT, 2013, 21) Outside of Algeria, it was accompanied by an increase in the number of inventors and local patents from 90 Algerian inventors who submitted 116 patents in 2011 to 131 inventors who submitted 134 patents in 2012, Inventor submitted (168) patents in 2013 (DGRCDT, 2013, 12-13), but this improvement is not sufficient at all and this is evident if we compare the number of domestic patents registered by the inventors and Algerian institutions estimated 168 patents compared to (3036) for Algerians living abroad accounted for an estimated margin (94.75%) year (2013).

The researcher attributed the various negative consequences mentioned above to the existence of several obstacles to the success of innovative policies in Algeria, the most prominent of which are the following:

- Political and legislative obstacles that neglected innovation and R & D strategies.
- The weakness of innovative, technological and scientific policies, as well as the absence of a culture of innovation in Algeria.
- The low rate of expenditure on research and development in Algeria and the lack of government allocations in this area.
- Attention in the field of education, higher education, scientific research and even training at the expense of gender.
- The great schism in the relationship between Algerian universities and economic institutions.
- The brain drain and competencies and the inability of the Algerian state to contain them.
- The dependence of Algeria on the sole source of fuel, which neglected other sources of great importance such as innovation.

6. Conclusions and Recommendations

6.1. The Results of the Study

6.1.1. The Results of the Theoretical Study

Based on what was addressed in the theoretical framework of this study has been reached the following results:

- Despite the differences of studies and research and disagreement on the concept of innovation, but they all agree on the importance of integration in institutions and States alike.
- The concept of innovation refers to the set of scientific, technical, commercial and financial steps necessary for the success and development of new or improved products, the commercial use of methods, processes and equipment, the introduction of a new method of service or the manner in which it is performed.

Innovation should be characterized by four basic characteristics: differentiation, innovation, ability to discover opportunities, and first market action. Innovation is of paramount importance to both institutions and countries: Improve the quality of products, and help to find ways to activate and increase the volume of sales, increasing the quality of decisions in various areas of technical, financial and marketing, enhances the competitiveness of the institution.

Innovation is the main engine of growth and development in developed and developing countries. Based on the findings, the first hypothesis that "innovation plays a major role in the success and sustainability of institutions and the progress and development of countries and societies" has been validated.

6.1.2. Results of the Analytical Study

The analytical framework of this study has been discussed and analyzed in various countries in the field of innovation according to the global competitiveness reports during the period (2011-2015), where Algeria obtained results that were generally very weak in the various seven sub - indices Innovation, spending on research and development activities, quality of scientific research institutions, cooperation between universities and institutions, government exports of high-tech products, availability of scientists and engineers, and patents. This negates the second hypothesis that " Indicators achieved by Algeria in the field of innovation is very positive, according to the Global Competitiveness reports during the period (2011-2015). "

6.2. Recommendations of the Study

Based on the results reached by the researcher in the latter to provide a set of suggestions and solutions that, if applied, can help Algeria in the activation of innovative policies, notably:

- The need to pay more attention to the issue of innovation in Algeria through the development of effective policies and strategies for innovation and work on the development of axes to implement them.
- Direct innovation and R & D activities towards important strategic sectors.
- Seeking appropriate ways and mechanisms to finance various innovative activities and research and development activities while seeking to increase the contribution of the private sector in this field.
- Increasing the quality of education and training and activating them, and supporting human capabilities especially special and innovative.
- To raise awareness and awareness of the importance of innovation and invention activities at all levels (schools, institutes, universities, ... etc).
- Make greater efforts and provide all the requirements and conditions suitable for the return of scientific competencies migrating.
- Studying the various leading international experiences in the field of innovation carefully and identifying ways and means of adapting and benefiting from them.

Finally, it should be noted that the problem of this study does not end here, but is enriched by several other aspects through future research aimed at several aspects and other issues related to innovation in Algeria.

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