

An Analytical Overview of the Current Status of Economic Diversification in Algeria and Pathways for its Activation

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Abstract :

Since the early years of independence, the Algerian authorities have sought to uplift and boost their economy by pursuing numerous development programs aimed at achieving economic diversification. This is accomplished by making use of the abundant potentials and resources existing within various sectors and spheres.

This study aims to analyze the status of economic diversification in Algeria, while emphasizing diverse approaches to its activation. This will be achieved by spotlighting various sectors pivotal to economic growth and their contribution to national economic diversification.

Keywords : Economic diversification, economic sectors, natural resources, the Algerian economy.

JEL Classification Codes: H11:P11

1. Introduction:

Economic diversification is among the foremost concerns for many developing nations, particularly those dependent on oil revenues to fund their government budgets. Despite possessing abundant potential across diverse economic sectors, these countries remain heavily reliant on a single resource for budgetary support. This reliance highlights the necessity and importance of diversification initiatives to position them as pioneers in a various range of sectors.

The consecutive oil shocks have rendered economic diversification an inevitable necessity pursued by governments worldwide, particularly those reliant on oil production. This is accomplished by exploiting all available economic assets, with a focus on natural resources, both subterranean and surface-level, while fortifying them with human capital and technological expertise. The objective is to enhance all economic sectors constituting the GDP and strive towards equalizing their contributions to income, aiming to attain equilibrium among economic sectors, ensuring economic stability, and alleviating economic volatility.

Algeria, akin to other countries worldwide, has exerted considerable effort to diversify its national economy since the early years of independence, even amidst the transition in economic ideology from socialism to capitalism. Thus, in light of the aforementioned, the subsequent issue can be brought up:

- What is the current status and future potential of economic diversification in Algeria?

Emerging from the central issue are the following subsidiary questions:

- What measures are being taken in Algeria to diminish oil dependence and promote economic diversification?
- What strategic alternatives could enable the Algerian economy to realize economic diversification?

From the above, the following hypotheses are suggested:

- From independence to the present day, Algeria has pursued various developmental strategies and policies with the aim of diversifying its national economy.
- Algeria possesses several strategic options that can be utilized to achieve economic diversification.

The study aims to focus on the following objectives:

- Introducing the fundamental concepts associated with economic diversification.
- Exploring developmental programs designed to diversify the national economy.
- Analyzing and evaluating the current status of economic diversification in Algeria.
- Identifying the potentials and resources across different sectors that facilitate economic diversification.

To address the research questions and achieve the desired objectives, the research has been structured around the following axes:

The first axis: Understanding economic diversification.

The second axis: Assessing the current state of economic diversification in Algeria.

The third axis: Strategies for implementing economic diversification policies.

The fourth axis: Economic sectors pivotal for achieving economic diversification in Algeria.

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2. Understanding economic diversification :

Economic diversification has emerged as one of the most widely debated topics in recent years, owing to its crucial significance in driving economic growth and addressing contemporary global crises. Therefore, this axis will explore various definitions of economic diversification, its primary determinants, and its correlation with economic stability.

2.1. Definition of economic diversification:

Presented below are the key definitions associated with economic diversification:

Economic diversification is the process of expanding income sources by broadening the production base and increasing the contribution of both goods and services sectors to the Gross Domestic Product (GDP). This process aims to minimize the risks associated with overreliance on a single primary or key commodity (whether agricultural or strategic). Economic diversification also involves maximizing the utilization of all local resources and production capacities To secure the buildup of self-reliant capabilities capable of generating renewable resources. It further aims to achieve domestic market production control and successive stages of export diversification (Kerouf, 2016, p.638).

It is defined as the process of expanding the production framework and creating new income-generating sectors, aiming to decrease overall reliance on revenues solely from the primary sector of the economy. This will result in the creation of new avenues with higher value-added and the potential to offer more productive employment opportunities, ultimately leading to long-term growth enhancements (Twil et al., 2021, p.224).

From the preceding definitions, we can infer that economic diversification can be understood as the process of broadening the sources of national income across different economic sectors that constitute the national output in a balanced manner. This guarantees achieving self-reliance initially, followed by involvement in export endeavors as a subsequent step.

2.2. The main determinants of economic diversification :

Economic diversification relies on a range of factors, this encompasses (Sadek, 2018, p,4):

- a- Governance:** This encompasses the activities undertaken by administration, involving decisions that set expectations, delegate authority, or assess performance. It may comprise either an independent procedure or a distinct component of management or leadership activities.
- b- Private sector:** The private sector assumes a pivotal role in economic diversification through its leadership and management of innovations and economic activities. For instance, investing in research and development for new ventures.
- c- Natural resources:** Among the primary determinants of economic diversification, natural resources can be utilized to enhance exports of productive goods. However, the prosperity of a community is not solely dependent on the abundance of resources but rather on their optimal and efficient utilization.

- d- Institutional capacity and human resources:** These contribute to enhancing the prospects of diversification. Studies suggest that variations in institutional quality play a significant role in determining whether countries can avoid the resource curse phenomenon (known as the Dutch disease). Economic diversification serves as a crucial factor in income distribution and addressing social disparities in education and other domains. The influence of institutions on economic growth tends to be more profound in the long term, encompassing aspects such as investment in physical and human capital, technology, and production organization. The challenges faced by nations with the Dutch disease, despite their access to abundant natural resources, have been attributed to the institutional quality of the state, including issues such as corruption.
- e- Regional integration :** This entails the collaboration among geographically adjacent economies. This collaboration involves coordinating and harmonizing various technical standards and systems, reforming customs procedures, and enhancing border surveillance. These measures are essential for promoting a conducive business environment within the region (Yaakoubi, 2020, p.321).

2.3. The importance of economic diversification:

Economic diversification plays a crucial role in reducing economic risks and enhancing resilience to external crises and shocks, such as fluctuations in oil prices (Chikhi et al., 2019, p.240). It lowers investment risks by boosting economic growth through increased investment opportunities and reducing the vulnerability associated with concentrating investments in a few sectors (Dif et al., 2018, p.22) . Diversification also contributes to improving and developing multiple sectors as income sources, thereby increasing the value added to the Gross Domestic Product (GDP) and promoting self-sufficiency in goods and services (Halimi et al., 2018, 710), which in turn reduces dependence on imports. Furthermore, it fosters job creation in the private sector by enhancing productivity and human capital, thereby stimulating economic growth rates (Chlihi et al., 2018, p.200). Moreover, it works towards achieving sustainable development to ensure long-term economic stability, considering that expanding the scope of economic activities through production and distribution of goods and services enhances the stability of economies. Additionally, economic diversification aims to meet the foundational requirements of sustainable development, including offering job prospects, ensuring food security, providing healthcare, clothing, and housing for underprivileged populations (Bahi et al., 2016, p.141).

3. An assessment of the current state of economic diversification in Algeria :

We will endeavor through this axis to delve into the economic diversification landscape in Algeria, elucidating how different economic sectors contribute to the indicators of economic diversification in the country.

3.1. The contribution of productive sectors to Gross Domestic Product (GDP):

The contribution of the fuel sector witnessed a notable decrease in the national output during the period of (2010-2020). In (2010), it was estimated at 34.86%, while in (2020), it plummeted to 12.70%. This decline can be attributed to the sharp reduction in revenues from fuel exports, primarily due to the decline in oil prices in the global market. It's not because of an increase in value-added resulting from the contribution of other productive sectors to the domestic output. The

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drop in oil prices led to a numerical increase in the contribution of other sectors to the output, but it wasn't a genuine contribution. An evident example is the austerity policy implemented by Algerian authorities, especially post-2015 due to the oil price decline. This resulted in a trade deficit and a reduction in foreign exchange reserves. The subsequent table illustrates the contribution of productive sectors to the gross domestic product during the period of (2010-2020).

Table 1. The contribution of productive sectors to Gross Domestic Product (GDP)

Year	Hydrocarbons	Industry	Construction and Public Works	Services	Duties and Import Fees	Gross Domestic Product
2010	34,86	5,15	10,49	34,80	6,24	100
2011	35,93	4,55	9,14	36,41	5,86	100
2012	34,15	4,50	9,20	36,73	6,65	100
2013	29,84	4,64	9,85	4,64	9,78	100
2014	27,04	4,86	10,41	40,19	7,21	100
2015	18,75	5,50	11,47	44,59	8,10	100
2016	17,27	5,59	11,84	45,11	7,97	100
2017	19,60	5,51	11,67	43,63	7,83	100
2018	22,24	5,42	11,47	41,47	7,55	100
2019	19,53	5,71	12,20	42,28	7,90	100
2020	12,70	6,27	13,14	45,59	8,25	100

Source: Mohamed Daami, 2022, p.22

3.2. The contribution of the hydrocarbons sector to exports during the period (2010-2020)

During the period (2010-2020), the fuel sector dominated national exports, especially before the petroleum crisis of (2015), exceeding 98%. This explains the absence of competitive Algerian products in the international market. Furthermore, there has been an increase in the contribution of non-petroleum exports to the total national exports, estimated at 1.70% in (2010), rising to 9.46% in (2020). This increase is mainly attributed to the decline in oil prices rather than diversification of national exports. The following table illustrates the contribution of the fuel sector to national exports during the period (2010-2020):

Table 2. The contribution of the hydrocarbons sector to exports during the period (2010-2020)

Years	The petroleum exports as a percentage of total exports	The regular exports as a percentage of total exports
2010	98.30	01.70
2011	98.30	01.68
2012	98.30	01.62
2013	98.30	02.77
2014	97.23	04.30
2015	95.70	03.95
2016	95.25	05.40
2017	96.50	03.95
2018	94.60	05.40
2019	94.14	05.86
2020	09.46	09.46

Source: Mohamed Daami, 2022, p.27

3.3. Contribution of petroleum revenues to total revenues during the period (2010-2020) :

The following table illustrates the contribution of petroleum revenues to total revenues during the period (2010-2020):

Years	The percentage of petroleum revenues	The percentage of regular revenues	Total revenues (as a percentage)
2010	64.19	35.81	100,00
2011	66.14	33.86	100,00
2012	63.96	36.04	100,00
2013	61.74	38.26	100,00
2014	59.05	40.95	100,00
2015	44.57	55.43	100,00
2016	34.8	65.15	100,00
2017	35.17	64.83	100,00
2018	41.28	58.72	100,00
2019	38.24	61.76	100,00
2020	27.27	72.73	100,00

Source: Mohamed Daami, 2022, p.25

Through the table above, we notice that petroleum revenues accounted for more than 50% of the state's general revenues during the period (2010-2014). This is due to the significant financial returns from petroleum exports during this period, as a result of the high oil prices in the international markets. However, from (2015) to (2020), the contribution of petroleum revenues to the total general revenues witnessed a notable decline, reaching as low as 27.27% in (2020). This is because of the significant decrease in oil prices in the international markets and not due to improvements in other economic sectors. This compelled Algeria to adopt an austerity policy.

3.4. Contribution of the agricultural sector to Gross Domestic Product (GDP) during the period (2010-2020):

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Percentage	8.5	8.1	8.8	9.8	10.4	11.7	12.2	11.8	12	12.3	13.8

Source: Compiled by researchers based on statistical bulletins from the Bank of Algeria.

According to the data in the table above, it is clear that the agricultural sector occupies a significant position in the national economy, with its contribution to gross domestic product (GDP) ranging between 8% and 14% during the period from (2010) to (2020), thus ranking third after the hydrocarbons and services sectors.

3.5. Contribution of the tourism sector to Gross Domestic Product (GDP) during the period (2010-2020):

The tourism sector is regarded as one of the viable alternatives for achieving economic diversification due to its significant contribution to the Gross Domestic Product (GDP) and its role in enhancing economic growth rates. Consequently, numerous countries prioritize the development of their tourism industry. It is notable that the tourism sector has now emerged as one of the world's largest industries.

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The Algerian economy relies heavily on the hydrocarbon sector, which has been particularly susceptible to fluctuations in oil prices in recent years. It has become imperative to seek alternatives to the rentier economy and move towards economic diversification. This is especially crucial considering that Algeria possesses several sectors, such as tourism, agriculture, industry, and renewable energy, among others, which can enable it to achieve economic diversification.

The tourism sector is regarded as one of the key alternatives proposed for achieving economic diversification, given its potential to improve the economic structure and invigorate various other economic sectors. The subsequent table highlights the contribution of the tourism sector to the Gross Domestic Product (GDP) over the period from (2010) to (2020).

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Percentage	1.5	1.4	1.4	1.5	1.5	1.4	1.4	1.6	1.7	1.8	1.1

Source: Seoud Wasila, Maddahi Ahmed, 2022, p. 168.

Based on the data in the table above, it is evident that the tourism sector's contribution to the Gross Domestic Product (GDP) ranged between 1.4% and 1.8% from 2010 to (2019). However, in (2020), this contribution dropped to 1.1% due to the COVID-19 pandemic. These figures are relatively low, largely because of the lack of sufficient attention to this sector and the predominant focus on the hydrocarbon sector.

4. Methods for implementing economic diversification policy:

Approaches to implement economic diversification policy can be outlined as follows:

4.1. Changing the growth paradigm : The authorities should aim to transition the Algerian growth model, currently state-led and dependent on hydrocarbons, towards a more diversified model driven by the private sector.

4.2. Implementing financial controls : This involves boosting hydrocarbon revenues by reducing tax exemptions, enhancing tax collection efforts, restraining current spending, limiting public investment while significantly improving its efficiency, and reinforcing the budgetary framework.

4.3. Shifting towards industries that enable economic expansion and diversification: This can be initiated by outlining a future vision for investing in renewable energy and bolstering investments in the agricultural sector. Furthermore, economic diversification efforts can be expanded through sectors like food agriculture, engineering and consultancy, information and communication technologies, and domestic tourism (Bellama et al., 2018, p.341).

4.4. Improving the business environment: According to the (2019) World Economic Forum report, Algeria ranked 118th out of (140) countries in the index, scoring 3.9, highlighting the fragility of its economy regarding the business environment. In this context, efforts should be made to boost the business environment by formulating industrial policies for startups, eliminating bureaucratic hurdles. Furthermore, the private sector should actively participate in government initiatives, with these initiatives being factored into the agenda for economic diversification.

5. The economic sectors relied upon to achieve economic diversification in Algeria:

5.1. The tourism sector:

Based on the geographic diversity, Algeria presents six tourist hotspots, this encompasses (Kouach, 2004, p. 222):

- a- **The northern coastal plains and Atlas mountains:** This region stands out for its extensive coastline and numerous archaeological sites dating back to the Roman, Arab, and Muslim periods, as well as ancient relics from antiquity.
- b- **The Atlas mountain range:** Within this area lies the highest mountain peak in the north, 'Lalla Khedidja' at 2308 meters. Furthermore, there are the Aures Mountains, the Ouarsenis, a mountain range parallel to the coast, known for its significant potential for developing various types of tourism, including winter sports such as skiing, climbing, hunting, and more.
- c- **The high plateaus region:** This area is distinguished by its continental climate, rich archaeological sites, and diverse traditional handicraft industries.
- d- **The saharan Atlas zone:** Situated between the High Plateaus and the Great Desert, this region presents opportunities for climate tourism, mineral tourism, hunting, and more.
- e- **The northern desert oasis region:** Known for its moderate temperatures, this area experiences cooler temperatures compared to the Great Desert. It is distinguished by its palm tree oases, lakes, and the presence of traditional industries.
- f- **The great desert area:** Recognized as the vast southern expanse (Al-Hoggar Tassili), it is distinguished by its vast expanses and towering mountains. With moderate temperatures year-round, it serves as a significant hub for winter tourism.

5.2. The agriculture sector:

Algeria occupies a total agricultural area estimated at 42.4 million hectares, constituting 18% of the country's total land area of 2,381,741 square kilometers. The utilized agricultural land is estimated at 8.458 million hectares, equivalent to 28% of the total agricultural area.

Geographically, arable lands in Algeria are distributed across four regions, namely (Boujetou, 2020, p.24):

- a. **The coastal zone:** Spanning an area of 1.65 million hectares of agricultural land, it constitutes 19.6% of the total agricultural area. This region comprises 14 provinces stretching from El Tarf in the east to Tlemcen in the west.
- b. **The inland zone:** Covering an area of 3.69 million hectares of agricultural land, it comprises the provinces of Blida, Bouira, Medea, Constantine, Ain Defla, Mascara, Relizane, Tiaret, Tissemsilt, Mila, Bordj Bou Arreridj, Sidi Bel Abbès, and Setif.
- c. **The steppe region:** Encompassing an area of 2.85 million hectares of agricultural land, it comprises 15 provinces: Oum El Bouaghi, Batna, Biskra, Djelfa, M'sila, El Bayadh, Khenchela, Souk Ahras, Tébessa, Saïda, El Oued, and Laghouat.
- d. **The desert zone:** Covering an area of 0.218 million hectares, equivalent to 2.6% of the total arable land, it encompasses 8 provinces: Ouargla, Ghardaia, El Oued, Adrar, Béchar, Tamanrasset, Tindouf, and Illizi.

5.3. The renewable energy sector :

Algeria has substantial capabilities in the renewable energy sector, which can be categorized as follows:

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- a. **Solar energy:** According to specialized studies, Algeria receives between 2000 and 3900 hours of sunlight annually, with an average of 5 kilowatts per hour of energy per square meter across the entire national territory. This translates to a power of 1700 kilowatts per square meter in the north and 2263 kilowatts per square meter in the south. Additionally, the German Aerospace Agency has declared that the Algerian desert is the world's largest reservoir of solar energy, with sunlight lasting for 3000 hours per year, marking the highest level of sunshine globally (Chikhi et al., 2016, p.26).
- b. **Wind energy:** Algeria benefits from winds carrying moisture from the sea and substantial amounts of dry desert air, with an average annual speed exceeding 7 meters per second, particularly in coastal regions. Winds have the potential to generate significant energy; for instance, wind turbines at a height of 30 meters with a wind speed of 5.1 meters per second can produce an annual energy output of 673 million watt-hours, capable of meeting the energy needs of 1008 homes. The southwestern region experiences particularly strong winds, reaching speeds of up to 5 meters per second, which enhances turbine rotation and consequently increases energy production while reducing costs per kilowatt-hour (Kasmi, 2015, p.46).
- c. **Geothermal energy:** In (2015), the total number of thermal springs in Algeria was estimated to be approximately 282, comprising natural springs or wells with high medicinal value (Ministry of Tourism and Handicrafts). Two-thirds of these springs have temperatures exceeding 45 degrees Celsius, reaching 98 degrees Celsius in Hammam Debagh in Guelma province, 118 degrees Celsius in Ain Ouamed and Ouled Mimoun, and 119 degrees Celsius in Biskra. Furthermore, the sub-desert sedimentary basin contains significant reserves of hot water ranging from 60 to 65 degrees Celsius (Moudin, 2018, p.355).

6. Conclusion:

Economic diversification is an essential strategy for constructing a resilient economic framework that isn't solely dependent on a single resource or sector. Instead, it aims to distribute economic activity across multiple interconnected sectors to achieve sustainable growth.

Countries, including Algeria, particularly oil-producing ones, are actively pursuing diversification efforts. Despite significant endeavors and implemented measures, they have yet to fully realize a diversified and robust economy. Dependency on the hydrocarbon sector remains a significant challenge.

This study has yielded several key findings, summarized as follows:

- Despite the long period since independence to the present day, the Algerian economy has remained largely rent-based, with the hydrocarbon sector dominating as the sole source of national income.
- Algeria has implemented numerous development measures and policies to break away from oil dependency. However, it has not achieved the outlined objectives through these efforts.
- Algeria possesses vast potential and numerous options that enable it to advance in the realm of economic diversification.
- The private sector has been given attention since the inception of the economic reforms implemented by Algerian authorities; however, its role has remained limited and has not yet met the required level. The study has resulted in a set of recommendations, including:

- The need to pursue clear strategies to advance various sectors that enable economic diversification in Algeria.
- The necessity of continuing efforts to create the necessary and motivating environment for the growth and expansion of diverse economic sectors in Algeria.
- The importance of benefiting from successful international experiences in the field of economic diversification.

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