

## Evaluating Industrial Sector Competitiveness in Oil-Dependent Countries: Evidence from Algeria and Libya during 2010-2021

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### Abstract:

This study evaluates the industrial sector's performance in oil-dependent countries, focusing on Algeria and Libya, in order to understand the factors influencing industrial competitiveness and the impact of oil dependency on economic activities. The research uses the Competitive Industrial Performance (CIP) Index data from 2010-2021 to analyse various dimensions, indices, and sub-indices using a descriptive analytical approach. Findings indicate that Algeria and Libya's dependence on oil exports has hindered the development of a competitive non-oil industrial sector, confirming the "resource curse" phenomenon. Algeria has shown incremental improvements due to stable political conditions and consistent policies, while Libya faces setbacks due to political instability. Although Algeria shows improvement in medium- and high-tech exports, both countries remain behind the world median in industrial competitiveness.

**Keywords:** industrial competitiveness; CIP index; oil dependency; economic diversification.

**Jel Classification Codes :** L60, Q4, O10.

## 1. INTRODUCTION

The industrial sector serves as a cornerstone for driving economic growth and fostering diversification in developing nations. It plays a pivotal role in creating jobs, boosting productivity, generating exports, and ultimately raising living standards. However, countries heavily reliant on oil exports, like Algeria and Libya, often face a unique set of challenges in developing a robust and competitive industrial sector. This phenomenon, often referred to as the "resource curse," presents a complex web of obstacles that can hinder economic diversification and lead to vulnerabilities when oil prices fluctuate.

Algeria and Libya, both heavily reliant on oil exports, have undertaken various efforts to build a more diversified industrial base. Algeria has implemented policies to attract foreign investment, promote industrial zones, and encourage the development of SMEs. The country has also focused on enhancing its manufacturing capabilities, particularly in areas like food processing and chemicals. Libya, facing significant political and economic challenges, has had a more fragmented approach. Efforts have been made to attract foreign investment and diversify the economy beyond oil, but progress has been hampered by ongoing political instability and security concerns. Both countries face challenges in diversifying their economies, including a lack of infrastructure, skilled labor, and a conducive business environment. While both countries have implemented some measures, a more robust and comprehensive strategy is needed to address these challenges and achieve a more diversified and resilient industrial base.

### **Problem statement**

Despite their abundant natural resources, Algeria and Libya have struggled to develop competitive and diversified industrial sectors. This reliance on oil exports has left their economies susceptible to external shocks and hampered their ability to create sustainable economic growth and employment opportunities. This study aims to address the following main problem:

**To what extent have the industrial sector in Algeria and Libya been able to achieve global competitiveness during the period 2010-2021?**

**Study questions:** This study aims to address the following research questions:

1. How does the reliance on oil exports impact the industrial competitiveness in Algeria and Libya?
2. Are there differences in industrial competitiveness between Algeria and Libya?

**Study hypotheses:** This study proposes the following hypotheses:

- A higher reliance on oil exports is negatively associated with the competitiveness of non-oil industrial sectors in both Algeria and Libya.
- Libya's ongoing political instability and conflicts have had a more significant negative impact on its industrial sector performance, resulting in lower competitiveness than Algeria.

**Study objectives:** The study aims to:

- Highlighting key factors influencing industrial sector performance in both countries.
- Explaining the impact of dependence on oil exports on industrial competitiveness.
- To clarify the differences in industrial competitiveness between Algeria and Libya.

### **Significance of study**

The significance of the study lies in its exploration of the competitive industrial performance (CIP) in oil-dependent economies like Algeria and Libya. It seeks to understand the challenges and opportunities these countries face in diversifying their economies beyond oil, which is crucial for fostering sustainable economic growth and reducing vulnerability to oil price fluctuations.

### **Study methodology**

The study employs a descriptive analytical approach, leveraging data from the United Nations Industrial Development Organization's Competitive Industrial Performance (CIP) Index across the years 2010 to 2021. It assesses the industrial sectors performance in Algeria and Libya through a detailed comparative analysis of the various dimensions, indices and sub-indices. The study is utilised quantitative data on industrial performance indicators, economic statistics from a variety of sources, such as the World Bank, UNIDO, and UNCTAD.

## **2. Literature review**

The competitive industrial performance (CIP) of oil-exporting countries, particularly Algeria and Libya, has been a subject of increasing interest in recent years. (Cheng, et al., 2023), emphasize that industrial competitiveness, social cohesion, and environmental sustainability can be compatible, offering hope for a productive, low-carbon, and inclusive economy. Their study proposes an Inclusive and Sustainable Competitive Industrial Performance (ISCIP) Index, which expands on the United Nations Industrial Development Organization's Competitive Industrial Performance Index by incorporating social and environmental dimensions.

In the context of oil-exporting countries like Algeria and Libya, the industrial sector's contribution to the economy is particularly significant. (Ladjedel, 2023), analysed the Algerian industrial sector from 2008 to 2023, highlighting its strengths, weaknesses, and potential for improvement. Their study reveals that while the industrial sector is crucial for Algeria's economy, it suffers from numerous constraints and requires substantial reforms. One of the primary challenges faced by oil-exporting countries is the dominance of the extractive industry in their economies. (Djemai & Billami, 2019), found that in Algeria, the industrial sector's contribution to GDP and added value is considerable. However, this contribution is largely attributed to the extractive industry, making the economy vulnerable to oil price fluctuations.

Similarly, (Triki, 2017), investigated the obstacles to implementing new manufacturing systems in Libya. Their reconnaissance study revealed that Libyan manufacturing management may not fully understand modern systems and their implementation requirements. This lack of understanding poses a significant barrier to industrial development and competitiveness. The impact of globalization and technological advancements on manufacturing industries in oil-exporting countries cannot be overlooked. (Albishti, 2022), examined the influence of these factors on Libyan manufacturing industries. The study highlights the need for clear strategies and policies to enhance industrial performance, competitiveness, and cost reduction through the adoption of modern technologies.

Several studies have identified key factors that influence industrial competitiveness in North African economies, which are directly applicable to Algeria and Libya. (Anyanwu, 2017), analysed the key drivers of

manufacturing value added development in North Africa. The study found that secondary education, agricultural land, domestic credit to the private sector, trade openness, inward FDI stock, population size, and ICT infrastructure positively affect MVA. Conversely, dependence on oil, mineral, and natural gas rents, as well as political factors, negatively impact MVA in the region. . (Chelling et al, 2024), found a significant positive impact of innovation on competitive industrial performance in BRICS economies. The study also highlighted the importance of factors such as the quality of regulation, rule of law, foreign direct investment, and GDP in enhancing competitive industrial performance. (Nnyanzi et al, 2022), examined the effects of infrastructure development, liberalization, and governance on manufacturing production in sub-Saharan Africa. The study found that infrastructure development and governance are key to manufacturing production, with infrastructure development positively affecting manufacturing value added in the long-run. (Agbonrofo & Olusegun, 2023), investigated the effect of monetary policy on manufacturing sector value added in sub-Saharan African countries. They found that interest rates and exchange rates had significant negative impacts on manufacturing value added in the long-run, while credit to the private sector had no real impact in either the short or long run. (Moya & Jeke, 2019), conducted a panel study of selected African countries and found that the manufacturing sector has a positive effect on economic growth. They emphasized the importance of human capital and institutional quality in promoting manufacturing sector growth and overall economic development.

The literature shows that Algeria and Libya face challenges in developing their industrial sectors, but can improve by diversifying their economies, investing in infrastructure and technology, and implementing effective policies.

### **3. Conceptual framework**

#### **3.1 Definition of competitive industrial performance (CIP) index**

The Competitive Industrial Performance (CIP) Index, released annually by UNIDO starting in 2003, measures the capacity of countries to manufacture and export manufactured goods at a competitive price (European Commission, 2024).

The CIP index measures a country's competitive industrial performance by considering its productive capacity, industrialization intensity, and market impact. Compiling from UNIDO's database, it can be

interpreted over time and across countries, indicating a country's comparative advantage over others (World Bank, 2024).

The CIP index provides crucial information on national manufacturing sectors' strengths and weaknesses, aiding policymakers in promoting competitiveness, maximizing economic efficiency, and fostering population prosperity (UNIDO, 2019, p. 9).

### **3.2 Competitive Industrial Performance (CIP) Index components**

The CIP index measures a country's industrial competitiveness, focusing on production performance rather than business climate or growth potential. It comprises three dimensions: capacity to produce and export, technological upgrading, and impact on world production and trade, using data from UNIDO's statistical database for quality assurance (Upadhyaya, 2019, p. 3). The CIP index comprises eight sub-indicators grouped along three dimensions of industrial competitiveness: a country's capacity to produce and export manufactures levels of technological deepening and upgrading, and country impact on world manufacturing. Industrialization intensity and export quality are composite sub-indicators computed from manufacturing value added and GDP, respectively. The index is a composite obtained through geometric aggregation of these sub-indicators, with equal weights assigned (Upadhyaya & Yeganeh, 2015, p. 4).

The CIP index revolves around three main dimensions (Hosseini & Haghighi, 2023, pp. 92-93):

- **Capacity to produce and export Sub-indices:** The capacity index of countries measures their ability to produce and export industrial products, adjusting country size with per capita income.
- **Technological deepening and upgrading Sub-indices:** The index measures technological advancement and innovation in countries, indicating industrialization intensity and export quality.
- **World impact Sub-indices:** This dimension measures a country's impact on global industrial production and trade.

## **4. ANALYSIS OF CIP INDICES IN ALGERIA AND LIBYA**

This analysis examines Algeria and Libya's competitive industrial performance from 2010 to 2021, utilizing competitive industrial performance indices to evaluate efficiency and productivity.

#### **4.1 The overall progress of CIP index in Algeria and Libya**

The provided data on the Competitive Industrial Performance (CIP) index (see **appendix 1**) reveals notable trends in the industrial competitiveness of Algeria, Libya during the period 2010-2021. Both Algeria and Libya consistently fall within the second and the quintile (lower middle), indicating a level of industrial performance that is below the global median but above the bottom 40% of countries.

Algeria's industrial competitiveness shows relative stability with rankings oscillating between 92 and 99 and scores narrowly ranging from 0.01 to 0.02, indicating a consistent yet modest level of industrial development. In stark contrast, Libya's rankings are more erratic, ranging from 98 to 123, reflecting significant volatility due to political and economic instability, despite a constant low score of 0.01. Both countries sit in the second quintile of global rankings, with Libya often ranked higher than Algeria, yet its lower score reflects deeper issues of competitiveness linked to political instability and infrastructural shortcomings. This situation highlights that Libya's moderate relative performance masks its substantial lag behind global standards and similar nations, necessitating comprehensive reforms to enhance industrial competitiveness. Lastly, the considerable gap between both countries' scores and the global median score of 77 underlines the urgent need for targeted policies to boost industrial growth and innovation to reach global competitiveness levels.

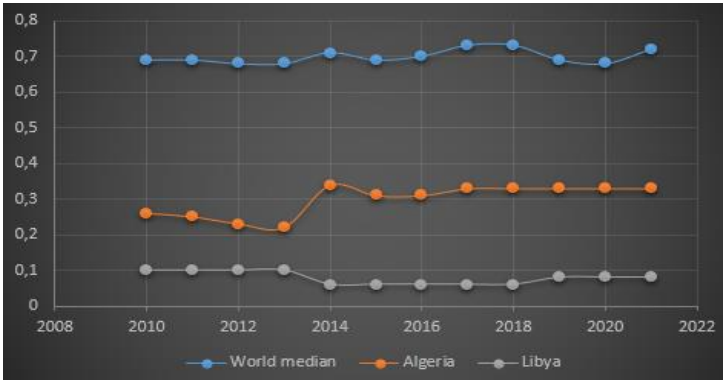
#### **4.2 Capacity to produce and export sub-indices**

The CIP framework's "Capacity to produce and export" sub-indices" assess a country's industrialization and manufacturing capacity for international markets.

##### **4.2.1 Manufactured Export**

The Fig.1 presents the share of manufactured exports between the world median and the two North African countries, Algeria and Libya.

**Fig.1. Share of manufactured exports in total exports index, 2010-2021**



**Source:** Prepared by the author based on (World Bank, 2024)

Algeria's performance, while substantially below the world median, showed some improvement over the period. Algeria's share of manufactured exports increased from 0.26 in 2010 to 0.33 in 2021, representing a modest but noteworthy growth. A significant jump occurred between 2013 and 2014, where the share rose from 0.22 to 0.34, attributed to policy changes and economic restructuring efforts. However, from 2014 onwards, Algeria's share stabilized around 0.33, suggesting a plateau in the country's manufacturing export growth.

Libya, on the other hand, exhibited the lowest share of manufactured exports and showed a declining trend. Libya's share decreased from 0.1 in 2010 to 0.06 in 2014, where it remained until 2018. A slight recovery to 0.08 was observed from 2019 to 2021. This pattern reflects Libya's heavy reliance on oil exports and the political instability that has affected the country's economic diversification efforts. Law No. 9/201012, enacted to attract foreign capital, has been a significant challenge in Libya's industrialization and economic diversification. Political instability has deteriorated the country's capacity to produce and export manufactures, making it one of the continent's poorest business environments. The private sector, dominated by micro, small and medium enterprises (MSMEs), employs only 14% of the workforce (African Development Bank, 2023, p. 4).

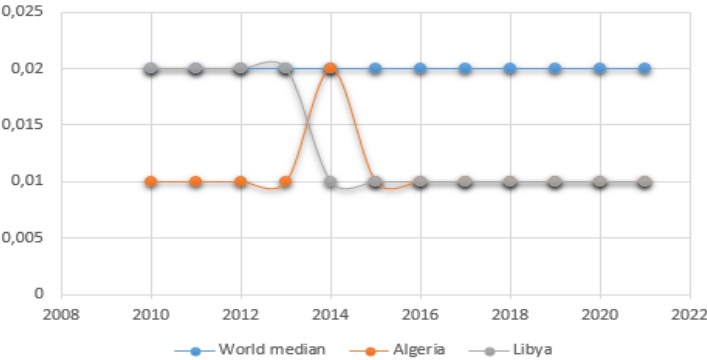
By 2021, the world median's share of manufactured exports (0.72) was more than double that of Algeria (0.33) and nine times that of Libya (0.08).

This substantial gap underscores the challenges these countries face in diversifying their export base and developing their manufacturing sectors.

4.2.2 Manufactured exports per capita index

The Fig.2 provides insights into the manufactured exports per capita index for Libya, Algeria, from 2010 to 2021.

**Fig.2. Manufactured exports per capita index, 2010-2021**



**Source:** Prepared by the author based on (World Bank, 2024)

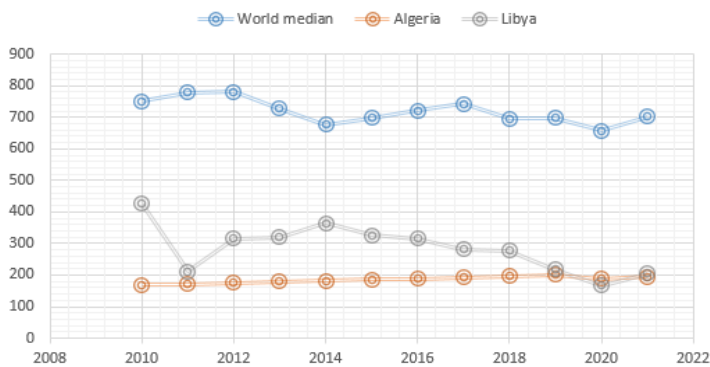
Algeria's manufacturing value added per capita index remained at 0.01 for most years, below the world median of 0.02. A notable exception occurred in 2014 when Algeria briefly matched the world median at 0.02. However, the index returned to 0.01 in subsequent years, indicating that the factors behind the 2014 increase were not sustained long-term. Libya's trajectory in the manufactured exports per capita index presents a more dynamic picture. From 2010 to 2013, Libya matched the world median with an index of 0.02. This performance is particularly noteworthy given Libya's smaller population compared to many countries, indicating a relatively robust manufactured export sector during this period. However, a significant shift occurred in 2014, with Libya's index dropping to 0.01, where it remained for the rest of the observed period. This decline coincides with the period of political instability and conflict in Libya, which had a severe impact on its manufacturing and export capabilities. The country's development stage hinders export diversification, necessitating rapid diversification away from hydrocarbon resources through economic ventures like industrial zones, manufacturing facilities, and logistics hubs (African Development Bank, 2021, p. 6).

The comparative analysis reveals interesting patterns. While the world median maintained stability, both North African countries experienced volatility, although in different ways. Algeria showed a brief improvement, whereas Libya experienced a decline from which it did not recover during the observed period. By 2021, both Algeria and Libya had indices of 0.01, half that of the world median.

4.2.3 Manufactured value added per capita

Fig.3 provides insight into manufacturing sector performance in Libya and Algeria from 2010-2021.

Fig.3. Manufactured value added per capita, 2010-2021



**Source:** Prepared by the author based on (World Bank, 2024)

Algeria demonstrates a relatively stable, albeit low, trajectory in its manufactured value added per capita. Starting at \$169 in 2010, Algeria shows a gradual and consistent increase, reaching \$200 by 2019. This represents an overall growth of approximately 18% over the decade. However, it's crucial to note that despite this growth, Algeria's figures remain substantially below the world median throughout the entire period. Algeria's GDP declined to \$189 in 2020 despite government measures like tax exemptions, mask manufacturing encouragement, and financial support for small and medium-sized businesses (Bouguerroumi & Boudjana, 2021, p. 579). Followed by a slight recovery to \$195 in 2021.

Libya exhibits extreme volatility in its manufactured value added per capita. Beginning at a relatively robust \$426 in 2010, Libya experienced a dramatic decline to \$211 in 2011, coinciding with the political upheaval of the Arab Spring. The subsequent years show erratic fluctuations, with values ranging

from a high of \$365 in 2014 to a low of \$168 in 2020. This volatility reflects the ongoing political instability and civil conflict in Libya, as well as its heavy dependence on oil exports, which are subject to global price fluctuations.

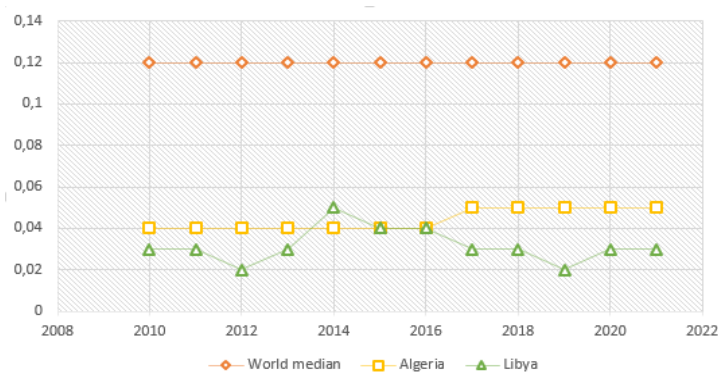
In 2021, both Libya and Algeria converge to similar levels of manufactured value added per capita (\$206 and \$195 respectively), significantly below the world median of \$702. This convergence, however, is due to Libya's dramatic decline rather than Algeria's growth, highlighting the different paths these oil-dependent economies have taken.

**4.2.4 Manufacturing value added share in total GDP**

Algeria's manufacturing value added share in GDP shows a modest but discernible upward trend over the period. Starting at 0.04 (4%) from 2010 to 2016, it increases to 0.05 (5%) from 2017 onwards. This slight improvement, while positive, still places Algeria's manufacturing sector contribution significantly below the world median. The incremental nature of this growth may indicate gradual efforts towards economic diversification. Whereas among the stated objectives of the new government plan (2014-2019) is the development of mining resources and associated industries (fertilizers and steel). A new development of zinc, barite and gold (Kerrar, 2014, p. 9).

Libya's data presents a more volatile picture, reflective of its tumultuous political and economic landscape during this period. Libya's manufacturing value added share fluctuates between 0.02 (2%) and 0.05 (5%), with no clear trend emerging. Notably, the highest value of 0.05 was recorded in 2014, coinciding with a period of relative stability before renewed conflict.

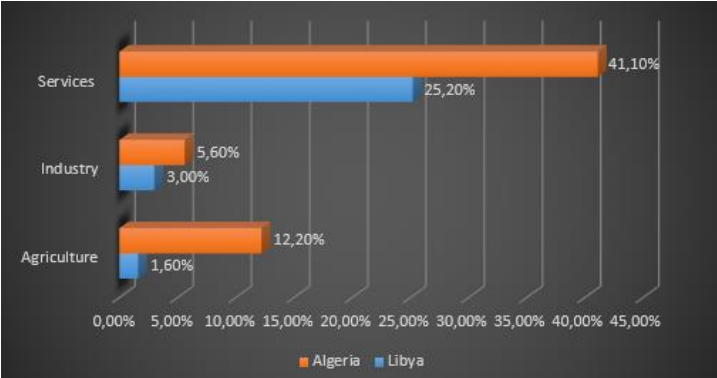
**Fig.4. Manufacturing value added share in total GDP, 2010-2021**



**Source:** Prepared by the author based on (World Bank, 2024)

Algeria maintains a higher manufacturing value added share than Libya, due to its diversified economy and efforts to reduce hydrocarbon dependence. However, both countries consistently fall below the world median, indicating underdevelopment in their manufacturing sectors.

**Fig.5. Sectoral Contribution to non-hydrocarbon GDP (%) in 2021**



**Source:** (Bank of Algeria, 2022, p. 24); (LLOYDS Bank, 2024)

The industrial sector's contribution to non-hydrocarbon GDP in Libya and Algeria reveals disparities in economic diversification efforts and industrial development strategies (see Fig.5). Libya's industrial sector accounts for 3% of non-hydrocarbon GDP, indicating limited industrial base outside hydrocarbon. Algeria, on the other hand, has a stronger industrial presence, contributing 5.6%, indicating progress in developing industrial capabilities outside hydrocarbon. The goal of encouraging new industrial investments is to modernize and broaden the economy. Using a collection of axes, creative and adaptable processes have been implemented (Ladjedel, 2023, p. 173).

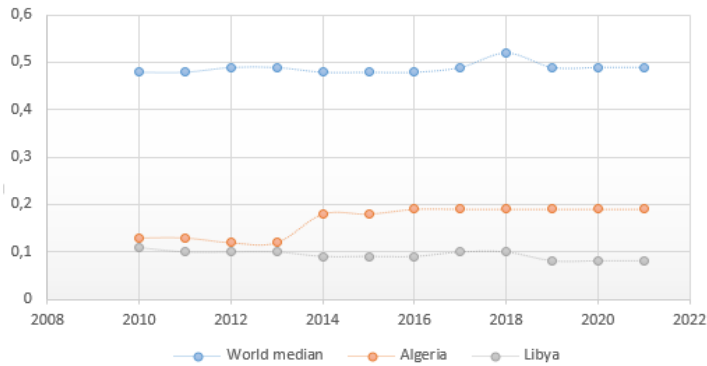
**4.3 Technological deepening and upgrading sub-indices**

The CIP framework's "Technological deepening and upgrading" sub-indices evaluate a country's industrial innovation progress, considering factors like technological complexity, export complexity, and manufacturing sector size.

**4.3.1 Industrial export quality index**

It evident from the Fig.6 that both Libya and Algeria in the industrial export quality index consistently underperform relative to the world median throughout the entire period under consideration.

Fig.6. Industrial export quality index, 2010-2021



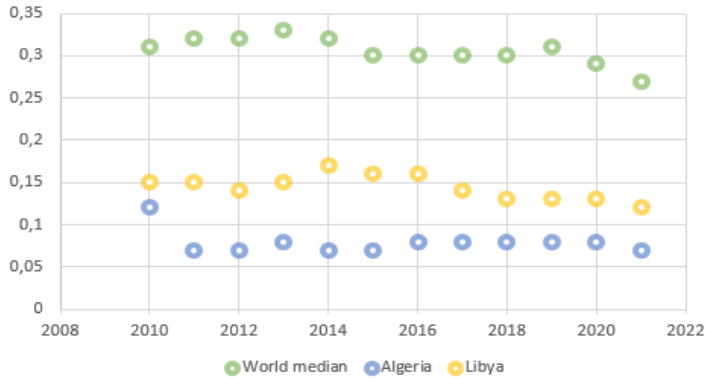
**Source:** Prepared by the author based on (World Bank, 2024)

Algeria's performance in Industrial export quality index has shown improvement from 2010 to 2021, rising from 0.13 to 0.19, despite being below the world median of 0.49. The country's index was stagnant between 2010 and 2013 but began to rise in 2014, correlating with a significant drop in oil prices that affected its economy. To address this, the country is enhancing its industry, diversifying its economy through incentives for SMEs and private sector operations, and promoting transparency and competition through economic reforms (Algeria Invest, 2021, p. 2). By contrast, Libya's index decreased from 0.11 in 2010 to 0.08 in 2021, reflecting deteriorating industrial export quality amid economic and political challenges. The paths of Algeria and Libya have notably diverged over the decade, with Algeria making modest gains while Libya's situation worsened, influenced by varying economic policies and political circumstances. This divergence highlights the impact of government policies and stability on industrial competitiveness and export quality.

4.3.2 Industrialization intensity index

Libya and Algeria consistently underperform the world median, highlighting their challenges in diversifying and intensifying their industrial sectors.

Fig.7. Industrialization intensity index, 2010-2021



**Source:** Prepared by the author based on (World Bank, 2024)

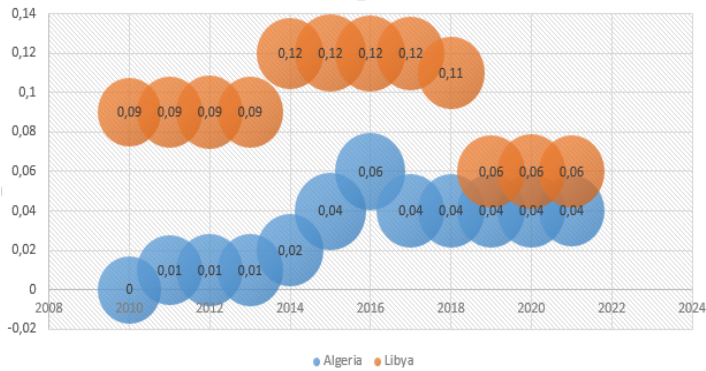
Algeria's industrialization intensity index showed a declining trend from 2010 to 2021, starting at 0.12 and dropping to 0.07(with a brief rise to 0.08 during the decade), due to the performance of industrial sectors was affected by the moderate growth of investment (World Bank, 2023, p. 11). This persistent low level, far below the world median, indicates Algeria's struggle to expand its industrial base beyond its reliance on hydrocarbons. Libya's index displayed more volatility, starting higher than Algeria's at 0.15 in 2010, peaking at 0.17 in 2014, and then decreasing to 0.12 by 2021, reflecting the country's unstable political and economic conditions. Both countries lagged significantly behind the world median, which was 0.31 in 2010 and 0.27 in 2021, highlighting the difficulty oil-dependent economies like Algeria and Libya face in matching global industrial growth.

4.3.3 Medium- and high-tech manufactured exports

Algeria started 2010 with no medium- and high-tech manufactured exports but saw a gradual improvement, reaching a peak of 0.06 by 2016, still below the world median but indicative of diversification efforts away from oil. Algerian industry's weakness stems from a weak production apparatus, lack of competitiveness, excessive import reliance, and limited manufacturing presence, indicating underutilized resources and potential for improvement (Shafir, 2021, pp. 28-31). Libya began the decade better at 0.09, peaked at 0.12 from 2014 to 2017, but then declined sharply to 0.06 by 2019, likely due to political and economic instability. Both countries, despite being oil-dependent, exhibited different trends: Algeria showed slow

but steady progress, while Libya experienced more volatility.

**Fig.8. Medium- and high-tech manufactured exports share in total manufactured exports, 2010-2021**



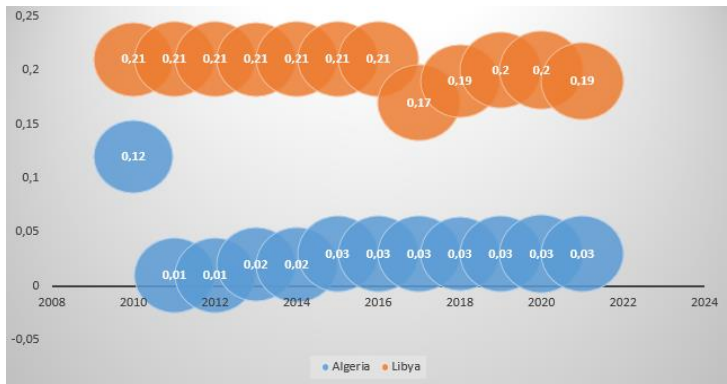
**Source:** Prepared by the author based on (World Bank, 2024)

The persistent gap between these countries and the world median in high-tech exports highlights the broader challenges oil-dependent economies face in upgrading their export sectors due to factors like inadequate R&D investment and insufficient skilled labor.

4.3.4 Medium and high-tech activities

The share of medium and high-tech activities in total MVA reflect to the technological integration in manufacturing across different economic contexts

**Fig.9. Share of medium and high-tech activities in total MVA index, 2010-2021**



**Source:** Prepared by the author based on (World Bank, 2024)

Algeria experienced a sharp decline in its index from 0.12 in 2010 to 0.01 in 2011, suggesting a major economic setback, but it then recovered

slightly to stabilize at 0.03 from 2015 to 2021. Despite this recovery, Algeria remains well below both its initial level and the world median, highlighting ongoing challenges in enhancing its medium and high-tech manufacturing sectors. Libya, in contrast, maintained a relatively stable index at 0.21 until 2016, despite political and economic upheavals, but saw a decline to around 0.19-0.20 after 2017. Although experiencing a dip, Libya's performance has consistently been stronger than Algeria's and closer to the world median, reflecting a more robust medium and high-tech manufacturing base. Both countries, however, continue to lag behind the global average, indicating significant potential for industrial development.

#### **4.4 World impact sub-indices**

The World impact index data for Algeria and Libya from 2010-2021 reveals a consistent pattern of zero values for both countries across all years, in terms of their impact on world Manufacturing Value Added (MVA) and manufactures trade. This uniformity suggests that neither country has had a measurable influence on global manufacturing or trade in manufactured goods during this period, according to this index. The persistent zero scores over a decade indicate long-term structural issues in both economies, possibly reflecting a limited diversification of their industrial sectors and a heavy reliance on natural resource exports, particularly hydrocarbons. While this data points to similar challenges faced by both nations in developing globally competitive manufacturing sectors, it also highlights the need for economic diversification strategies.

### **5. RESULTS AND DISCUSSION**

The results of the study on the competitiveness of the industrial sectors in Algeria and Libya during 2010-2022 reveal significant insights into the challenges and dynamics of these oil-exporting countries' industrial performances.

Both Algeria and Libya struggle to diversify their economies away from oil due to the "resource curse," despite government efforts. This challenge is more pronounced in Libya, where political instability has hampered diversification. Algeria shows a slightly better trajectory with modest but steady improvement in industrial competitiveness. The Competitive Industrial Performance (CIP) Index data reveals both nations remain significantly below the global median, highlighting the need for

stronger industrial development policies. Algeria's incremental improvements suggest potential for a more diversified industrial base, though progress is slow. Libya's industrial sector has been severely impacted by internal conflicts, undermining its competitive industrial base. In contrast, Algeria's relative political stability has provided a better environment for industrial development, despite ongoing challenges. Algeria and Libya's industrial competitiveness is influenced by political stability and government policies. To improve, they should focus on creating conducive business environments, investing in technological advancements, and fostering skill development, with tailored approaches for each country's unique circumstances.

The study results **support the first hypothesis**, where the analysis reveals a negative association between oil export reliance and non-oil industrial competitiveness, with limited industrial diversification and a strong manufacturing base, undermining economic stability and growth.

Libya's political instability significantly affects industrial performance, deterring foreign investment and slowing growth, as highlighted by Triki's (2017) study, highlighting the barriers to modern manufacturing systems, **which support the second hypothesis**.

## 6. CONCLUSION

The assessment of industrial sector competitiveness in Algeria and Libya during the period 2010-2022 reveals a complex picture of challenges and opportunities for these oil-exporting nations. While both countries have shown some progress in diversifying their economies and enhancing their industrial capabilities, they lag behind global benchmarks, highlighting a need for sustained efforts and policy interventions. The main results indicate:

- Both Algeria and Libya remain heavily reliant on oil exports, which has hindered the development of a robust and competitive non-oil industrial sector. This dependence has created vulnerabilities to external economic shocks and hampered diversification efforts.
- Algeria has shown incremental improvements in its industrial sector due to relatively stable political conditions and consistent economic policies aimed at diversification and foreign investment attraction.

Libya, in contrast, has faced significant setbacks due to ongoing

political instability, which has hampered its industrial growth and ability to attract investment.

- While both Algeria and Libya have implemented policies to promote industrial zones and attract foreign investment, progress towards economic diversification has been modest. Algeria shows some signs of improvement, particularly in its share of medium- and high-tech exports, but both countries remain significantly behind the world median in terms of industrial competitiveness.

**Policy Recommendations:** The study's conclusions support the following policy suggestions:

- Implement diversification strategies to lessen reliance on oil exports and bolster non-oil sectors via investment incentives and workforce development.
- Invest in energy, transportation, and communication infrastructure to boost productivity, attract foreign investment, and support domestic industrial growth.
- Enhance education and training programs to mitigate labor shortages in the industrial sector, thereby increasing productivity and global competitiveness.
- Promote research and development to improve manufacturing export quality and transition to higher value-added products.

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8. Appendices

Appendix 1: The Competitive Industrial Performance (CIP) Index during the period 2010-2021

| years | World Median |      |       | Algeria  |      |       | Libya    |      |       |
|-------|--------------|------|-------|----------|------|-------|----------|------|-------|
|       | Quintile     | Rank | Score | Quintile | Rank | Score | Quintile | Rank | Score |
| 2010  | 3            | 77   | 0.03  | 3        | 92   | 0.02  | 2        | 98   | 0.02  |
| 2011  | 3            | 77   | 0.03  | 2        | 94   | 0.02  | 2        | 108  | 0.01  |
| 2012  | 3            | 77   | 0.03  | 2        | 94   | 0.02  | 2        | 104  | 0.01  |
| 2013  | 3            | 77   | 0.03  | 2        | 98   | 0.02  | 2        | 104  | 0.01  |
| 2014  | 3            | 77   | 0.03  | 2        | 93   | 0.02  | 2        | 117  | 0.01  |
| 2015  | 3            | 77   | 0.03  | 2        | 99   | 0.01  | 2        | 119  | 0.01  |
| 2016  | 3            | 77   | 0.03  | 2        | 98   | 0.01  | 2        | 118  | 0.01  |
| 2017  | 3            | 77   | 0.03  | 2        | 97   | 0.02  | 1        | 123  | 0.01  |
| 2018  | 3            | 77   | 0.03  | 2        | 98   | 0.01  | 2        | 118  | 0.01  |
| 2019  | 3            | 77   | 0.03  | 2        | 99   | 0.01  | 2        | 118  | 0.01  |
| 2020  | 3            | 77   | 0.02  | 2        | 96   | 0.01  | 2        | 122  | 0.01  |
| 2021  | 3            | 77   | 0.02  | 2        | 99   | 0.01  | 2        | 120  | 0.01  |

Source: (World Bank, 2024)