

Prospects of developing the manufacturing industries in Algeria by
benefiting from the experience of Malaysia

آفاق تطوير الصناعات التحويلية في الجزائر
بالاستفادة من تجربة ماليزيا

Perspectives de développement des industries manufacturières en
Algérie, bénéficiant de l'expérience de la Malaisie

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Abstract:

This analytical study aims to determine the factors for the success of Malaysia's experience in developing manufacturing industries and consequently the development of the country. The study demonstrated that manufacturing industries gave a strong boost to the performance of the Malaysian economy, which enabled it to achieve a strong industrial base, due to the strict industrial policies and heavy reliance on foreign direct investment. Consequently, its success is due to the success of the manufacturing sector as a production activity rather than its over-reliance on oil revenues.

Mots clés: Manufacturing industries, Industrial development, Industrial sector, Industrialization, Algeria, Malaysia.

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ملخص:

تهدف هذه الدراسة التحليلية إلى تحديد عوامل نجاح تجربة ماليزيا في تطوير الصناعات التحويلية وبالتالي تطور البلد؛ إذ أثبتت الدراسة أن الصناعات التحويلية أعطت دفعة قوية لأداء الاقتصاد الماليزي، مما مكنها من تحقيق قاعدة صناعية قوية، يعود فيها الفضل للسياسات الصناعية المضبوطة والاعتماد الكبير على الاستثمارات الأجنبية المباشرة. وبالتالي فنجاحها راجع لنجاح قطاع الصناعات التحويلية كنشاط إنتاجي بدل اعتمادها المفرط على مداخل النفط.

الكلمات المفتاحية: الصناعات التحويلية، التنمية الصناعية، القطاع الصناعي، التصنيع، الجزائر، ماليزيا.

Abstract:

Cette étude analytique vise à déterminer les facteurs de réussite de l'expérience de la Malaisie dans le développement des industries manufacturières et, par conséquent, le développement du pays. L'étude a démontré que les industries manufacturières ont fortement stimulé les performances de l'économie Malaisienne, ce qui lui a permis d'atteindre une base industrielle solide, en raison de politiques industrielles strictes et d'une forte dépendance à l'égard des investissements directs étrangers. Par conséquent, son succès est dû au succès du secteur manufacturier en tant qu'activité de production plutôt qu'à sa dépendance excessive à l'égard des revenus pétroliers.

Mots clés: Industries manufacturières, Développement industriel, Secteur industriel, Industrialisation, Algérie, Malaisie.

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Introduction:

Few countries have historically succeeded in Developing the manufacturing sector, especially oil-exporting countries. Malaysian experience was cited as one of the countries with pioneering manufacturing experience. It has been able to make great progress and move rapidly from dependence on agricultural sector and extractive industries, to rely on the transformational industrial sector, by rising the contribution of the industrial sector to the GDP and improving the effectiveness and efficiency of the manufacturing sector, by structuring oil rents as incentives to encourage investments in desired new industries. While the Algerian government working on creating a real diversified industrial sector since independence, to keep the economy far from the oil industry, by making from the manufacturing sector the driver of growth.

This research will answer the main question: **How can Algeria develop its manufacturing sector according to the experience of Malaysia?**

1) Development of the manufacturing sector in Malaysia:

Malaysia's economy was largely based on agriculture before independence in 1957¹. There were very few manufacturing industries then, and these industries were mainly confined to the production of simple products such as the packaging of processed food and simple consumer goods. Soon after independence, Malaysia began to industrialize, mainly to diversify and create employment opportunities. According to indicators such as share GDP and contribution to exports earning and to job creation, manufacturing is now the single most important sector of the Malaysian economy². The manufacturing sector today is of great absolute and relative significance.

1-1) An overview at manufacturing strategies in Malaysia:

Malaysian government has implemented different manufacturing strategies: import substitution strategy, export-oriented manufacturing strategy and import substitution strategy based on heavy industries. Each strategy was designed to meet the challenges and opportunities of the industrial sector in the period of implementation of the strategy. Therefore, each industrialization strategy is justified economically, as follows³:

- Import substitution strategy:

One of the immediate concerns of Malaysian policymakers after their independence from British colonialism in 1957 was the development of the industrial sector. Malaysia needed to reduce its dependence on imports, particularly consumer goods with available resources to produce them alone because domestic production would reduce imports and overcome the problem of excessive dependence on the foreign sector. In 1958, the Malaysian government has provided incentives to local institutions to manufacturing various imported goods such as food industry, building materials, tobacco, plastic and chemical products. This encouraged the

creation of new industrial enterprises, thus the increase in the local supply of some products.

- Export oriented manufacturing strategy:

The Malaysian government realized that its domestic market was relatively small and embarked on an export-oriented manufacturing strategy aimed at penetrating foreign markets. Since the export of products requires administrative costs as well as transportation costs, the Malaysian Government has provided facilities by granting manufacturers export-oriented products with funding to expand their production, provide incentives and compensation for expenditures incurred for promotional activities in foreign markets, On export, through the promotion of geographical agglomeration and infrastructure development.

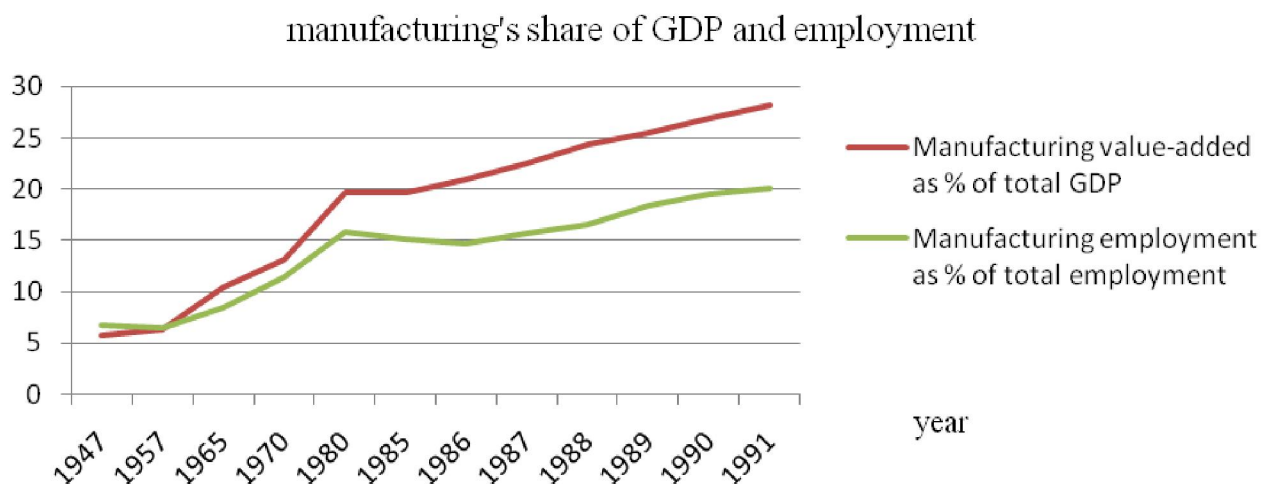
- Import substitution strategy based on heavy industries:

The manufacturing enterprises of the 1960s and 1970s managed to modernize the Malaysian economy by stimulating the industrial production of many commodities that rely heavily on Malaysian resources, such as automobile, iron and steel industries, and petrochemicals, and focus on the electronics and textile industry, which began to contribute two-thirds of the added value to the industrial sector (latex from rubber trees have been used to manufacture tyres, shoes and other rubber products at a cheaper cost). In 1980 the government shifted its manufacturing strategy for the second time to the import substitution strategy, but this time it was based on heavy industries, led by HICOM; that was the enterprise of the heavy industries in Malaysia that established in 1981, which acquired a large proportion of the various heavy industries.

1-2) The success of the industrialization in Malaysia:

Industrialization in Malaysia, was chosen as the « leading sector » of the big development push⁴. Since independence in 1957, the rate of growth in manufacturing output has been rapid, with the share of manufacturing in total GDP rising from less than 7 percent to 28 percent thirty years later (see figure 01). It has also accounted for an expanding share of employment. Firstly, manufacturing was a minor source of employment, it was employing only 7 percent of the country's labor force, even by 1965, it was just 8 percent. Then with the event of more labor-intensive industries in the late 1960s and the 1970s, manufacturing employed more than 15 percent by 1980, before rising more to more than 20 percent in 1991⁵.

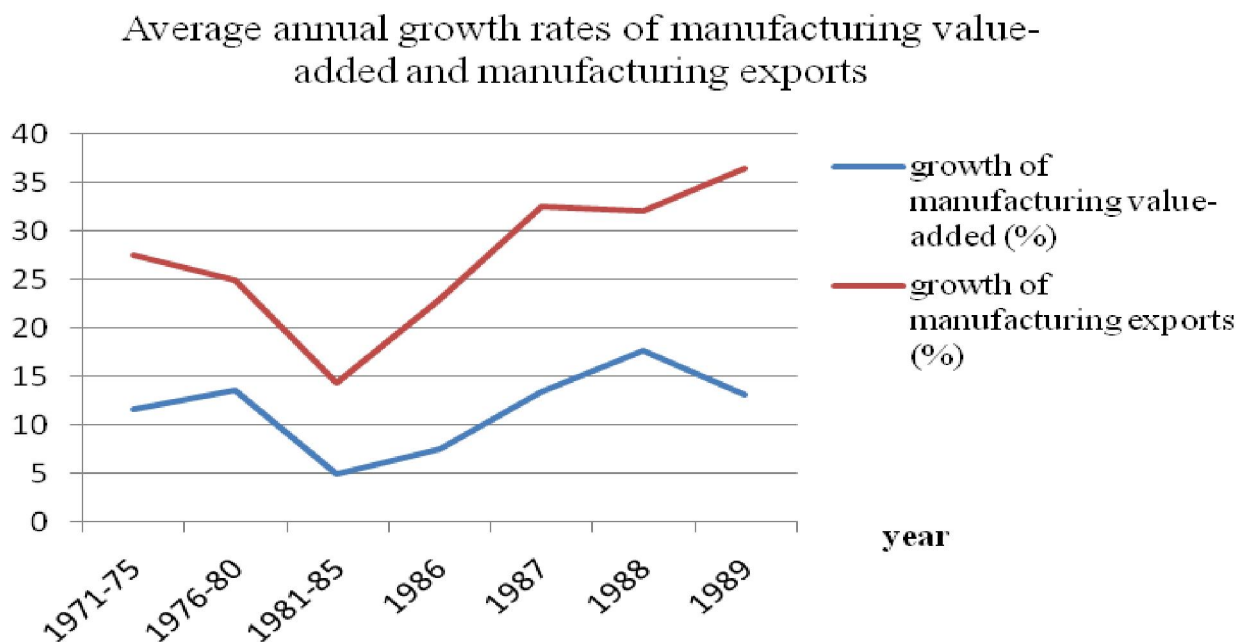
figure 01- Manufacturing's share of gross domestic product and employment 1947-1991



Source: Kwame Sundaram JOMO, «Industrializing Malaysia: Policy, performance, prospects», Routledge, London, 1993, p. 14,
http://shora.tabriz.ir/Uploads/83/cms/user/File/657/E_Book/Economics/INDUSTRIALISING%20MALAYSIA.pdf

Besides manufacturing's growing contribution to total GDP and to be a source of employment, it came to play a big role as a foreign exchange earner with the government's intention of reducing Malaysia's dependence on primary exports. So manufacturing exports rose rapidly as we can see the average annual growth rate of manufactured exports averaging almost 28 percent during 1971-75, declining to 14 percent from 1981 to 1985 before rising again to 36 percent in 1989 (see figure 02).

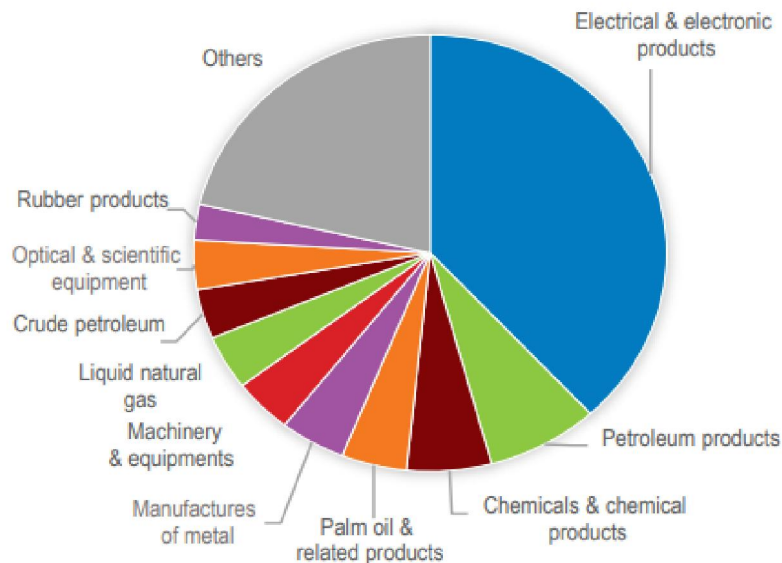
Figure 02 - Average annual growth rates of manufacturing value-added and manufacturing exports, 1971-89



Source: Kwame Sundaram JOMO, op.cit, p15.

The changes in the net output of the manufacturing sector which accounted for over a quarter of the GDP of Malaysia and the structure of Malaysian exports have been due to the deliberate government policy to industrialize and develop the domestic economy through the export-oriented development strategy since the 1980s by diversifying and intensifying the export base and at the same time focusing on manufactured exports.

Figure 03- Structural export composition in Malaysia (2018)



Source: OECD, «Economic Surveys, Malaysia», July 2019, p. 24.
<http://www.oecd.org/eco/surveys/economic-survey-malaysia.htm>

The Figure shows that the main exports of Malaysia are: electronics products, machinery and equipments, manufactures of metal, optical and scientific equipment and other products⁶. That confirms the industrial diversification that Malaysia reached after doing efforts to realize development in the industrial sector far from the dependence on oil rent and the agricultural sector.

There are key factors that contributed to Malaysia's structural change, from an agricultural-based economy to an industrial-based economy, listed in the following:

- ✧ people are the most precious asset: developing human capital took the highest priority in Malaysia⁷, we can say that the smartest decision they made early was to build schools instead of barracks and train teachers instead of soldiers, they knew early that investments in education yield the highest returns;
- ✧ foreign direct investments: «to achieving the vision 2020 and become an industrial nation, Malaysia much effort is required and foreign direct

investments is one of the ways to help achieve it»⁸. In order to meet various development goals, Malaysian authorities have used a host of incentives to attract foreign investors, which were only granted upon fulfilling certain performance requirements: country's export performance, technology transfer, research and development, employment and training, and joint venture or domestic equity requirements⁹;

- ⇒ industrial planning: One of the key factors that helped Malaysia diversify its productive base is its future vision of development and economic activity through successive and integrated plans since independence and its early readiness to enter the 21st century by planning for Malaysia 2020 and achieving what has been planned. Malaysians benefited from the Japanese in terms of preparing plans and benefited from Japanese investments that helped to flourish heavy industries and became the industry's main engine of growth in Malaysia (the total FDI from Japan between 1982-1993 was 11897)¹⁰;
- ⇒ industrial policies: manufacturing industries and the export of these industries were developed through the liberalization of investment laws, the privatization of enterprises and the opening of the economy to foreign trade and foreign investment. In the 1980s, policymakers have produces three master plans: Industrial Master Plan1 (IMP1) (1986-1995), Industrial master plan2 (IMP2) (1996-2005) and Industrial Master Plan3 (IMP3) (2006-2020). Since the period of implementation for all three policies is longer than six years, they may be considered to be long-term policies, each one of them attempts to address industrial problems specific to the period, which means that anyone from these plans has its particular objectives¹¹;
- ⇒ availability of resources for the industrial sector: Malaysia has vast natural resources to be used as input to industries. For instance, latex from rubber trees can be used to manufacture tires, shoes and other rubber products at a cheaper cost¹².

2) The reality of the manufacturing industry in Algeria:

Industrial development during the 1960s in Algeria was strongly influenced by the Soviet model¹³. This affected the planning system and resulted in an emphasis on heavy industry, large factories, and Soviet technology. The period 1975-1985 was one of rapid growth in manufacturing output in Algeria due to investments made possible by huge oil income earned in that period¹⁴. After that, value-added in manufacturing as a share of GDP remained constant at 9 percent between 1985 and 1996 because of the lower oil income after 1986's crisis.

2-1) Gross Domestic Product by productive sectors in Algeria:

Manufacturing requires a mixture of labor, capital, and management expertise; which offers an opportunity to introduce modern technology and economies of scale and to complement agricultural production. While the development of a country measured by the extent to which its manufacturing industry contributes to its domestic output, statistics still indicate the relative importance of the extractive industries in Algeria which contribute by more than 80% from the total industrial sector in Algeria (Table 01).

Table 01 - The relative importance of the extractive sector in GDP

Unit: billions of dinars

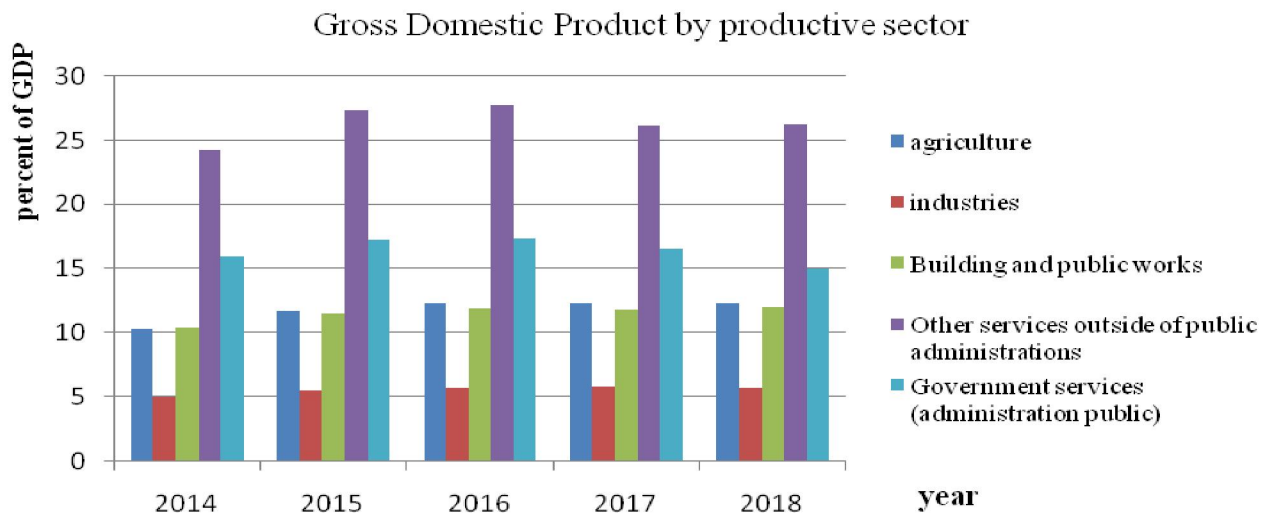
Year	Total industrial sector		Extractive industries		Manufacturing industries	
	Value-added	Contribution to GDP	Value-added	Contribution to GDP	Value-added	Contribution to GDP
2014	5496,3	31,9%	4657,8	27,0%	838,5	4,9%
2018	5479,0	24,4%	4348,7	18,8%	1130,3	5,6%

Source: Bank of Algeria, «Quarterly Statistical Bulletin», n° 46, september 2018, p. 26,

https://www.bank-of-algeria.dz/pdf/Bulletin_46e.pdf

Gross domestic product was estimated at 9362.7 billion dinars in 2007, with an increase of 10%, followed by a slight acceleration in 2010, when GDP increased by 3.3% and continuing to rise until 2014 achieving 17242,5 billion dinars¹⁵. The various sectors of the economy contributed to the GDP at different rates during the period 2014-2018, as shown in the chart (Figure04).

Figure 04- GDP by productive sector 2014-2018



Source: Bank of Algeria, op. cit., p. 26.

The structure of gross domestic product outside the hydrocarbon sector in Algeria is characterized by the contribution of the services sector (services outside public administrations and public administration services), building and public works whose activities remain high, unlike agriculture and manufacturing, which occupy the last positions between economic sectors. The low level of manufacturing performance reveals the Algerian economic problem and its backwardness from developed countries. These industries have not yet reached the desired level and do not meet most of the local needs of industrial goods and products, nor are they an important component of global manufacturing or Algerian exports, despite the unlimited opportunities offered by manufacturing industries in the production of goods and services, Technological and social well-being.

2-2) Stages of the Algerian industrial sector development:

After gaining independence in 1962, Algeria considered the industrialization as the key to rapid economic growth and social progress, which can realize an increased standard of living, job growth, and more productivity as it sustains growth. The Algerian industrial sector has defined several shifts, which are summarized in the following stages¹⁶:

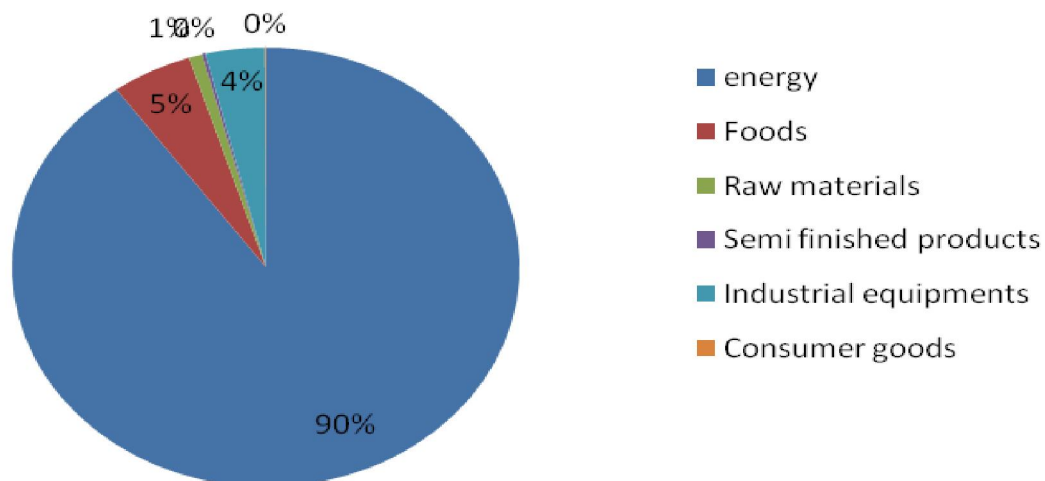
- ↪ the 1960's: The industrial sector during this period was characterized by its fragility and its full association to the outside, as a source of raw materials to meet the needs of developed countries, because there is no developed national industry;
- ↪ the 1970's: The Algerian authorities decided to adopt a global economic policy based on the strategy of heavy industrialization and manufacturing industries; proposed by the economist Gérard Dèstanne de Bernis, and achieve economic independence in light of the improvement of the country's income from hard currency. The reality of industry at the end of the seventies indicates its weakness and its delay in keeping up with global developments, this imposed a restructuring so that it can be competitive and withstanding future challenges;
- ↪ the 1980's: Many economic imbalances were recorded, most notably the lack of integration between the industrial sector and other economic sectors. This stage also witnessed several economic reforms, the most important of which were the organic and financial restructuring of public industrial establishments. The major industrial complexes were divided into small and medium industrial units; beside the crisis of 1986 that has affected the world's economies, which marked the end of Algerian well being and the beginning of turmoil;
- ↪ the 1990s: The industrial sector was opened to private partners, whether foreign or national. This phase has shown an unprecedented interest of the Algerian authorities in opening up to foreign direct investment, where laws have been issued to liberalize and promote the investment system;

⇨ period 2000-2015: During this period, many decrees and laws were issued to revive the industrial sector and improve the investment climate in the framework of a new industrial policy based on small and medium enterprises.

Despite the great achievements represented by the establishment of many economic institutions, infrastructure, and improvement in the political and social climate, despite the great stability that Algeria has achieved on the level of total balances due to the rise in oil prices in the international markets, the performance of the Algerian industrial sector has not got better in the last few years even with reforms. The manufacturing industries in the gross domestic product did not exceed 5.6%, and the structure of exports was dominated by the hydrocarbon sector by more than 93%. Exports outside the hydrocarbon sector did not exceed 7% since independence¹⁷, as shown in the figure 05.

Figure 05- Exports composition of the Algerian economy in 2018

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Source: Bank of Algeria, «Quarterly Statistical Bulletin», n° 48, december 2019, 2018, p. 26,
https://www.bank-of-algeria.dz/pdf/Bulletin_48e.pdf

Conclusion:

Among the developing countries which succeeded in realizing an industrial development in a few years “Malaysia”, which becomes an export-driven economy spurred by high technology, knowledge-based and capital intensive industries. The main factor of its success is the industrial planning, by putting consecutive and integral plans, and through evaluating their implementation. Unlike the Algerian industry which is still far from the real production process that contributes to the added-value and the creation of wealth, because it still relies too heavily on the oil sector for growth.

We can summarize the **results** obtained from this research in the following points:

- ✍ malaysian industrial growth since independence relies on strength in industrial strategies and excessive reliance on local resources;
- ✍ industrial planning built a pioneering manufacturing industries in Malaysia;
- ✍ the Algerian industrial sector failed in promoting economic growth despite the availability of natural resources;
- ✍ the main reason for the failure of the industrial plans pursued by the Algerian authorities since independence is the unbalanced plans that did not allow the state to get its goals.

Algeria can benefit from the Malaysian experience in developing manufacturing industries, by paying attention to the following **recommendations**:

- attention to the human element as the main actor in the development process;
- providing incentives and facilities for local and foreign investors and getting the highest level of benefits from FDI;
- valorization of vast natural resources;
- directing oil export revenues to the development of productive economic sectors.

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