

The Importance of Implementing an Appropriate Industrial Strategy In Diversifying The Economy: The Case Of The United Kingdom

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Abstract:

Industrialization and economic diversification are linked variables and economic diversification is achieved successfully through the implementation of the appropriate industrial strategy. The study aims therefore to demonstrate the importance of focusing on the industrial sector in order to achieve economic diversification by demonstrating the importance of industrial strategy in embodying this diversification and by reviewing the United Kingdom's experience.

This study concluded that the industrial strategy is very important to the success of countries in diversifying their economies, and although the United Kingdom had successfully diversified its economy through the implementation of industrial strategies, the process of implementing industrial strategy and achieving the best results remained difficult due to the difficulty of designing an appropriate industrial strategy for an economy. The study gave a set of recommendations.

- **Keywords:** Industrial strategy; economic diversification; industrialization; industrial policy; government, United Kingdom.
- **Jel Classification Codes:** E61; L52; O25

ملخص:

التصنيع والتنوع الاقتصادي متغيران مرتبطان ويتحقق التنوع الاقتصادي بنجاح من خلال تنفيذ الإستراتيجية الصناعية المناسبة. وعليه؛ هدفت هذه الدراسة إلى إظهار أهمية التركيز على القطاع الصناعي بغية تحقيق التنوع الاقتصادي من خلال إظهار أهمية الإستراتيجية الصناعية في تجسيد هذا التنوع، وباستعراض تجربة المملكة المتحدة في هذا المجال.

خلُصت الورقة البحثية إلى أن الإستراتيجية الصناعية مهمة للغاية لنجاح الدول في تنوع اقتصادياتها، وعلى الرغم من نجاح المملكة المتحدة في تنوع اقتصادها من خلال تنفيذ إستراتيجيات صناعية، إلا أن عملية تنفيذ الإستراتيجية الصناعية وتحقيق أفضل النتائج تبقى صعبة لصعوبة عملية تصميم إستراتيجية صناعية ملائمة للاقتصاد. كما قدّمت الدراسة مجموعة من التوصيات.

- **الكلمات المفتاحية:** إستراتيجية صناعية؛ تنوع اقتصادي؛ تصنيع؛ سياسة صناعية؛ حكومة، المملكة المتحدة.
- **تصنيف JEL:** E61؛ L52؛ O25

I. Introduction:

Industrial development is considered to be the main engine of economic development in a country, as it expresses the pursuit of the search for rational exploitation of economic resources by converting them into products ready for use, which can get the maximum possible added value at the lowest economic and social costs.

In order to restructure the economies of many countries and raise the level of the economic sectors' contribution to the domestic product, after that many countries have experienced significant imbalances in the structure of their economies, especially oil-exporting countries resulting from their dependence on a single source of income, primarily oil, so they are aware of the importance of diversifying the production base, to ensure the continuity and sustainability of the country's economic growth.

The process of diversification of economic activity is a difficult task, especially for oil-exporting countries, and although historically a few countries have succeeded in diversifying their economic activity and reducing their dependence on oil by focusing on the manufacturing sector, other countries were unaware about the role of the industrial sector in diversifying the productive structure of the economy, thus its development, which caused a low contribution of that sector to the economic growth, to the composition of gross domestic product and the absorption of the national labor force, despite the great efforts made by these last countries to advance the industrialization process.

This research paper will answer the main question:

How can an industrial strategy be effective and diversify the economy?

By answering these questions:

- What is « industrial strategy », and why do we need one?
- What are the pillars of an effective industrial strategy?
- How did the United Kingdom decide to revive its economy ?

I.1. Aims of the research:

This research paper aims to show the importance of industrial strategy in diversifying the economy, by identifying the reasons for the need for an industrial strategy and explain how countries can achieve a diversified industrial productive base by setting the pillars of an effective industrial strategy, and also mention the experience of UK using the industrial strategy to revive the economy.

I.2. Literature review:

Historically, researchers did research about manufacturing and economic diversification. On one hand, manufacturing has played a key role in the economic development of developing countries, and it was the future of the economy and the next step after agriculture for different emerging countries. Many recent researches highlight the fundamental idea that the manufacturing sector represents a cornerstone of many economies, a crucial sector to the generation of structural change and sustainable economic growth. (Attiah, 2019) concluded in his study «The role of manufacturing and service sectors in economic growth: an empirical study of developing countries » that the share of manufacturing of GDP is positively related to economic growth and this effect is more pronounced for the poorer countries, and the tentative conclusion is that the manufacturing is especially important in periods of accelerated growth, while services also play a role in growth accelerations, but less important than manufacturing. Another researcher (Ududechinyere, Eze, & Nweke, 2018) investigated the influence of manufacturing sector output on economic growth in Nigeria. He found that the manufacturing sector output has a positive and significant influence on real GDP in the economy.

On the other hand, Justin Bentham and others mentioned in their study « Against new industrial strategy: framing, motifs and absences » that for the UK' economy, there was a decline in the industrial sector since the middle of the twentieth century, while the industrial strategy has been viewed as ineffective or downright damaging relics.

In our research, we will discuss how can the manufacturing sector be a real key of success and progress in an economy, so it can lead the procession of economic development thus realizing an economic diversification in the country, by showing the importance of implementing an industrial strategy, by mentioning the United Kingdom as an example.

II. Industrial strategy:

Industrialization is necessary for development. there are basic requirements for industrialization and growth to diversify and create an economy in which everyone can look forward to the future. The basis for achieving a leading manufacturing production base is formulating an industrial strategy. So, what do we mean by industrial strategy? and why do we need one?

II.1. Defining the industrial strategy:

Industrial strategy is traditionally understood as a set of government interventions which seek to support or develop specific industries- typically manufacturing industries. However, the current usage of the term is much broader. Industrial strategy in recent times has been more about coordinating a wide range of economic policies to achieve objectives, including social and environmental aims. (Rhodes, 2019, p. 4)

The industrial strategy has to have a very clear framework of objectives, and a mechanism for coordinating strategies to achieve them. (Jacobs, Hatfield, King, Raikes, & Stirling, 2017, p. 7) So it has broad coverage and probably a wider range of instruments than a more narrowly focused approach. it would usually also be accompanied by a vision statement and a set of aims, targets, monitoring arrangements, and plans for resourcing, communications, and risk handling. We would see these as being the distinguishing characteristics of a strategy rather than any differences in the specific measures or policy approach. (Ken, 2013, pp. 16, 17)

II.2. Why do we need an industrial strategy?

The context in which we work, and in which the Industrial Strategy must be built, is one of enormous change. We are living through the ‘Fourth Industrial Revolution’ which will be shaped by nanotechnology, biotechnology, robotics, and artificial intelligence. (KPMG, 2017, p. 1) The old barriers between sectors are dissolving, new sectors are emerging, with new forms of organization and new types of work. This provides the backdrop to the need for an Industrial Strategy.

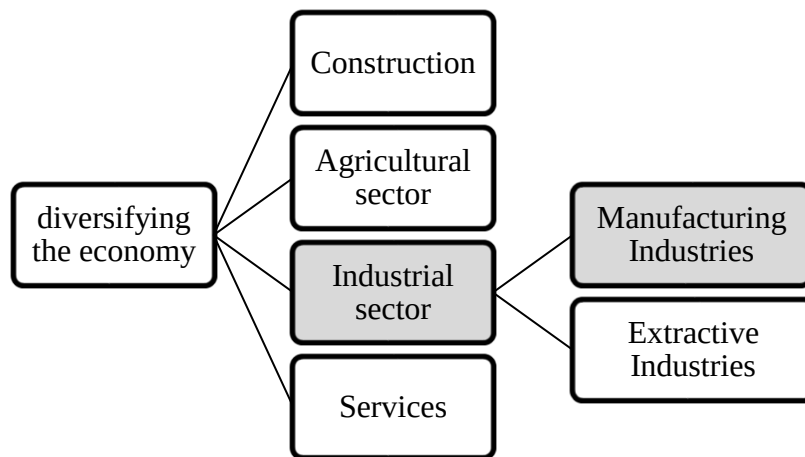
No economic diversification will realize neither without defining the ultimate goal of the structural change in the country: protecting the scale and distribution of domestic employment, or enhancing the international competitiveness of the economy? Should it be focused on, for instance, the balance of payments, or national security? Or all of the above? Nor without taking account the macro-economics of globalization: the powerful rise of India and China, the growing economies of Africa, South America, and the Far East, and the tilting of the world economy to the East and the South.

In developing an Industrial Strategy, policy-makers need to prioritize the aspects that only Government can and must be responsible for, and it is also important that the industrial strategy developed now, endures for the long-term, and done at scale, because new businesses and sectors do not emerge overnight, nor are regions of the country quickly rejuvenated.

II.3.. Diversification vs. Industrialization:

The concepts of ‘diversification’ and ‘industrialization’ are very often used interchangeably. The aim of diversification is spreading risk by creating a variety of income sources; industrialization in its broadest understanding is the process of creating these diverse income sources. (Hvidt, 2013, pp. 5, 6) Rodrik indicated that enhancing an economy’s productive capabilities over an increasing range of manufactured goods is an integral part of economic development. (Rodrik, 2006, p. 5) That is why we find countries working to diversify the industrial productive base from among the various economic sectors (see Figure (1)) and expand their export basket by designing industrial strategy builds a country fit for the future.

Figure (1): the successful economic diversification

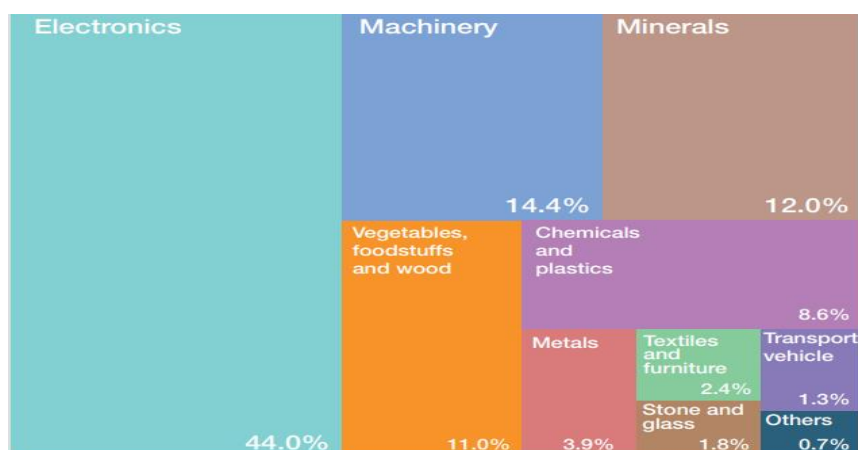


The source: by authors

Many countries have valuable experience on which we might draw, like Malaysia. After independence, Malaysia began to industrialize, mainly to diversify and create employment opportunities. (Sundaram, 1998, p. 148) Because industrialization, especially manufacturing, was chosen as the « leading sector » of the big development push. (Mehmet, 1986, p. 75) Malaysia realized that the need is not just for state intervention, but also for intervention which promotes efficient growth and investment. (Sundaram, 2007, p. 22) There is a need for an industrial strategy that actively promotes and creates comparative advantages. Thus, policymakers have produced recently three master plans, intended to address the problems faced by firms in the industrial sector. The master plans are Industrial Master Plan 1 (IMP1) (1986-1995), IMP2 (1996-2005) and IMP3 (2006-2020). (Tey, Azfar, & Hanani, 2018, p. 169) Each industrial master plan has strategies configured with the aim of achieving the main objectives which attempt to address industrial problems specific to the period.

Implementing successive and integrated industrial strategies in Malaysia pushed it to achieve a leading industrial base and diversifying its export products (Figure (2)).

Figure (2): Structural export composition in Malaysia (2016)

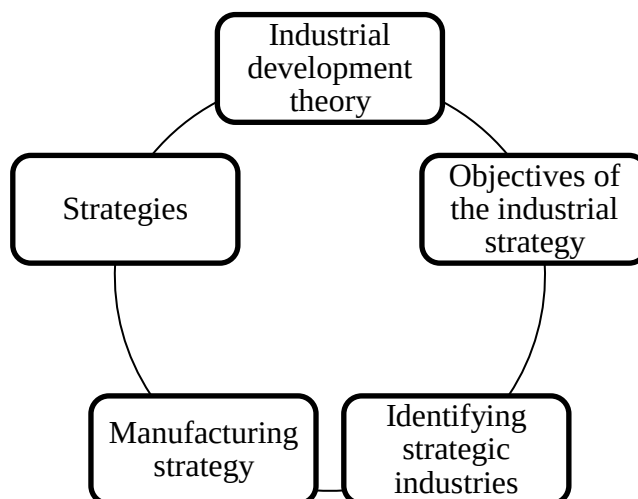


The source: Atlas of Economic Complexity. (2017). Annual report. p105.

III. The pillars of the appropriate industrial strategy to diversify an economy:

Defining an industrial strategy that coordinates industries on the one hand, and coordinates between industries and economic sectors, on the other hand, is a critical factor in diversifying the economy and thus facing challenges that hinder economic growth. An effective industrial strategy is based on five pillars as shown in Figure (3).

Figure (3): Pillars of an industrial strategy



The source: by authors

III.1. Industrial development theory:

In the late eighteenth century, coinciding with the industrial revolution, many countries considered industrialization as the key to future development. Some of them believe that there are important reasons why expansion into manufacturing is desirable, one of the most important is the fact that manufacturing offers greater scope for economies of scale and external economies. (Zhang, 2003, p. 7)

In the process of defining an industrial development theory, as the process of increasing productive capacity by increasing investment in the industrial sector is a planned not automatic process, it is important to learn from the past; to know what did the Government does to develop its industrial sector. Some countries worked on diversifying their economies by distributing investments on different economic sectors and also different industries in the industrial sector (Nurkse- the balanced growth approach), while others focused on the industrial sector as an attractive sector (Rosenstein Rodan- theory of Big Push).

Thus, an effective industrial strategy can be designed to complement the country's industrial past, to avoid ineffective industrial strategy, as Rodrik one of the leading modern proponents of industrial policy admits, in econometric studies "with few exceptions, industrial policy interventions are either negatively correlated with performance, or not correlated at all." (Dupont & Howard, 2017, p. 21) Because he views that the case against industrial policy rests upon the difficulty of its implementation, and about key design attributes that industrial policy must possess include embeddedness and accountability. (Dupont & Howard, 2017, p. 22)

By returning to the different industrial strategies formulated within the framework of specific industrial development theory in the past, we know where it went wrong, so we can draw lessons to avoid the mistakes of the past then we define an industrial development theory from which to start.

III.2. the objectives of the industrial strategy:

The objectives of the industrial strategy are a translation of the state's public policy goals, which reflect political, economic, and social goals in the industrial sector. So, how do we know what kind of structural industrial change is necessary? it can be determined through identifying the Strengths, Weaknesses, Opportunities and Threats of the industrial sector. It means that the starting place for the definition of objectives is the identification of the problems they seek to address, (Jacobs, Hatfield, King, Raikes, & Stirling, 2017, p. 7) which build on its strengths and different manufacturing opportunities, and address its weaknesses so it can position itself best for an uncertain future.

III.3. Identifying strategic industries:

The strategic industries vary from one country to another according to many indicators such as the rate of growth achieved, the development of the industrial sector, and the contribution of the industrial sector to GDP. To achieve the highest sustainable economic growth and employment, countries worked on identifying industries in a much better approach, but later some of them found that they are supporting the high-value sectors while the majority of people are employed in low-value sectors (which high-value industries depend on).

Taiwan has been ahead in this field. It began to introduce preferential policies for strategic industries in 1982, and six criteria were adopted that the strategic industries must meet. The six criteria are as follows: high linkage effect; high market potential; high technological intensity; a high degree of value-added; a low energy coefficient; and a low level of polluting emissions. (Yang, 1993, p. 387)

So, at the national level strategic industries can be identified, and governments ought to be involved in their promotion, in order to promote industrial development and improve the country's industrial structure.

III.4. Manufacturing strategy:

in the process of economic development in light of the hyper-connected world and the struggle for world market shares, countries work on realizing rapid industrialization of the economy.

countries experienced many types of manufacturing strategies that vary from a country to another and sometimes from once to another in the same country. For example, countries usually adopted import-substitution strategy after independence to reconstruct the economy, because production resources were directed away from household manufacture by the developed economies and the cost of living skyrocketed shortly after independence, which exerted pressure on the meager foreign reserves of the developing economies. (R.Adewale, 2017, p. 141) Otherwise, the export-promotion strategy was adopted by almost all countries at different stages in their industrialization phases to stimulate exports and to speed up economic growth.

Manufacturing strategies change as strategic industries change in the economy; when the strategic industries gain the support of the Government, it feels compelled to intervene in order to foster the development of these strategic industries at a national level by adapting the manufacturing strategy which is in line with the key industries.

III.5. Defining strategies:

At this stage, specifying strategies that have to be configured to achieve the aforementioned objectives, after setting grand challenges to put the country at the forefront of the industries of the future. The Government set itself the task of addressing these challenges, by looking at the economy we have, and to make preparations for the economy we need to become.

So, it has to set strategies to align to its vision for a diversified economy based on industrial strategy; a diversification that takes place as fast as it can and will accelerate over the course of the coming decades.

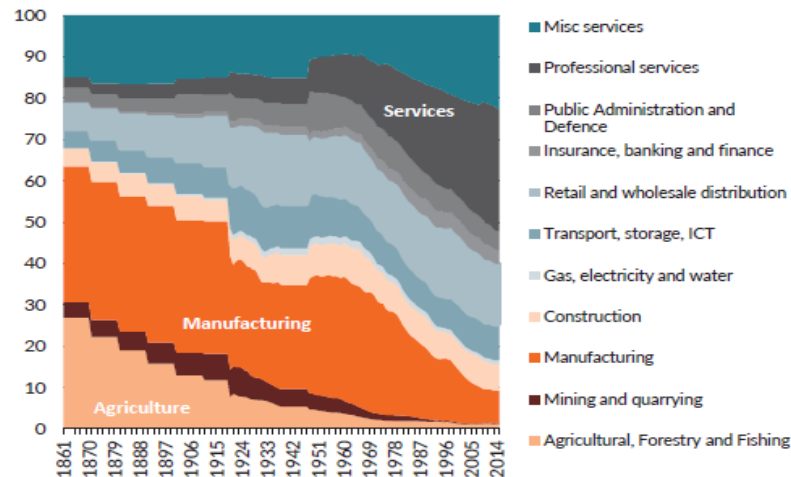
IV. The move of UK from non-interventionism to industrial strategy:

The industrial strategy in the UK has a history. It was proper, because it was compatible with economic, social and political conditions, and every time the Government identify strategic industries thus its intervention was selective. There was a relative economic decline from dysfunctional management and lack of investment, that is why they are working these last years to revival the interest of the industrial strategy and to implement a 'proper industrial strategy to get the whole economy firing'. (Berry, 2018, pp. 189- 192)

IV.1. Economic diversification in the UK nowadays:

The economy in Britain after the industrial revolution 1760-1840 which mark Britain the first major nation to industrialize and kick off the modern era of growth, thrived by manufacturing which played a key role in the development of the economy. The following figure shows the contribution of industrialization to employment, as we note that it is around a third of employment, and superior to all other economic sectors until the mid-1990s.

Figure (4): employment by sectors in the UK 1861–2014

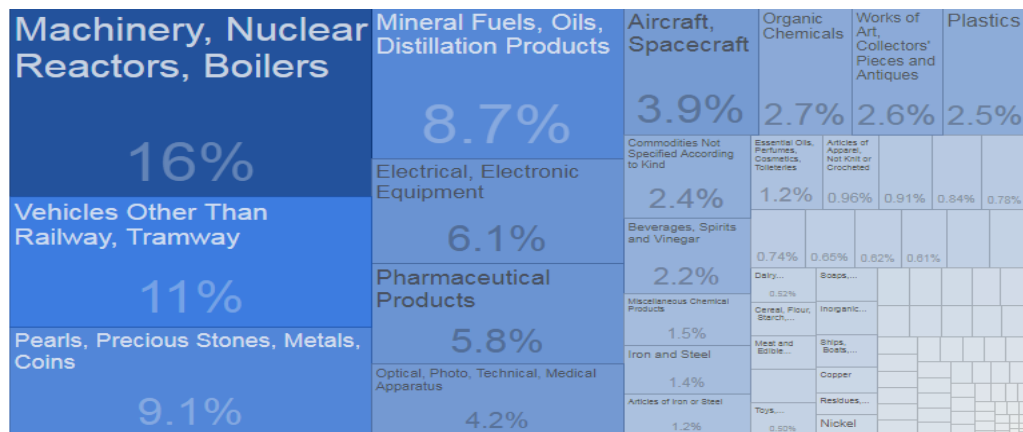


The source: Jonathan Dupont and Richard Howard, « the new industrial strategy » a policy exchange commentary, December 2016, p11.

In the early 1970s, the world economy suffered a major shock. In the UK and for the manufacturing sector, this was a period of stagnation in output and continued decline in terms of employment. (Kitson & Michie, 2014, p. 12) Also in this period of time, there was an economic policy regime change, which cause a decrease in the role of the state, and as a result, the record of poor investment in manufacturing continued. So the regime change exacerbated the decline of manufacturing, with adverse long-term implications for the whole economy (net exports, regional balance and overall economic growth).

Actually, the United Kingdom has a successful, competitive, open economy, which has many strengths on which they can build, and some weaknesses they need to address; these are challenges that have been recognized by previous governments. The current government considered them as keys of success so it can learn from their successes as well as try to avoid their mistakes.

Figure (5): Structural export composition in the UK (2019)



The source: <https://tradingeconomics.com/united-kingdom/exports-by-category>

As a result of good industrial planning in the past, which launched the industrial revolution, and from which the UK was called the ‘workshop of the world’ (Kitson & Michie, 2014, p. 19) we note the diversity of locally manufactured products as shown in the figure (5), and after that, the decision-makers diagnosed the situation of the economy in general and the industrial sector in particular in the UK and identified the causes of low productivity compared with its competitor nations, and collapse in productivity growth since the financial crash. (Corry & Kenway, 2017, p. 4) Thus the objectives of the new industrial strategy have been determined, which are strictly implemented.

IV.2. Developing a modern Industrial Strategy:

A list of economists argued that Britain owed much of its economic success in the nineteenth century to early industrial policy and protectionism- an argument repeated to this day by modern economists such as Ha-Joon Chang. There were some changed circumstances in the UK: increased automation, stagnating productivity, peak globalization, Brexit, and climate change. Under these conditions, they developed a modern industrial strategy with an overriding goal to create an economy in which everyone can look forward to the future, based on past experience, in the UK and internationally. In retrospect, the record of past industrial policies or strategies is a mixed one, when much of past industrial policy was focussed on industries with significant negative externalities. Now expanding the use of cheap coal may give Britain a short-term economic advantage, but would not be in the best interests of the planet. So, if we want a new industrial strategy to be a success, it is important to learn from the mistakes that were made in the past.

a design of an industrial strategy for the long term sets out how it will help businesses create better, higher-paying jobs in every part of the United Kingdom with investment in the skills, industries and infrastructure of the future, and to ensure their goals, they must ensure every part of their country realizes its full potential. The strategy is the work of many people from all types of organizations, sectors of the economy, groups of businesses and individuals over 10 months. It provides a policy framework against which major private and public sector investment decisions can be made with confidence. (HM government, 2017)

to create an economy that boosts productivity and earning power throughout the UK, the five foundations align their vision for a transformed economy are: (HM government, 2017, pp. 10, 11)

Table (1): the five foundations of the new industrial strategy

FOUNDATION	VISION
IDEAS	The world's most innovative economy
PEOPLE	good jobs and greater earning power for all
INFRASTRUCTURE	A major update to the UK's infrastructure
BUSINESS ENVIRONMENT	The best place to start and grow a business
PLACES	Prosperous communities across the UK

The source: by authors using « HM Government, Industrial Strategy: Building a Britain fit for the future, 2017, p10 ».

To ensure the new industrial strategy will endure, they created an independent Industrial Strategy Council (Industrial Strategy Council) that will assess their progress and make recommendations to the Government. It was established in November 2018. The Council, individually and collectively, operates independently from Government and other interests. The Council's remit is to provide impartial and expert evaluation of the Government's progress in delivering the aims of the industrial strategy- a long-term plan to boost the productivity and earning power of people throughout the UK. So, it will help ensure that the strategy endures over time in order to meet these longer-term challenges. (Industrial Strategy Council, 2020, p. 9)

V. Conclusion:

economic diversification is the future of manufacturing and the vision for the future economy sets out by an industrial strategy, which can get the government ready to face the industries of the future so boosting the productivity, and earning power and quality of life of the people in every part of the country.

The process of formulating an industrial strategy and implementing it rationally is a fruitful process for the economy and so difficult process at the same time because it requires strategic economic management and includes all parts of the country. The Government has to identify which industrial activities have been generally regarded in the recent past as strategic, the main determinants of national competitiveness and if the country is sufficiently resourced at present, so the industrial strategy can build on these challenges to meet its objectives like what UK did

recently by implementing a new industrial strategy, after that industrial strategy has returned in the UK after several decades when it was abandoned by most academics as much as by policy-makers.

VI. Results:

- An industrial strategy must be formulated that proceeds from the reality; whereas the first and important step is a diagnosis, to identify the economic strengths and weaknesses, so the way to moving forward;
- The UK adopted the industrial strategy since ancient times then abandoned, but soon returned to revive the interest in the industrial strategy;
- The UK got experience from its implementation of industrial strategies, and it evaluated their effects every time to get the best outcome;
- Government intervention can be as much the problem as the solution. if it doesn't show the importance of industrial strategy to overall economic performance and its role in economic diversification, no good results will accrue;
- Achieving economic diversification is difficult without an industrial strategy, as much as with its presence, because of the difficulty of the process of designing an industrial strategy and implementing it including every part of the country.

VII. Recommendation:

- Through this paper, we may recommend the followings:
- Countries should formulate a long-term strategy for the economy, while formulating many strategies at the level of sectors of the national economy, including an industrial strategy, as long as industrial strategy achieves more when it is part of a broad strategy for growth;
- The Government should provide the institutional and cognitive capacity to operate industrial strategy mechanisms in a coherent, impactful and strategic manner;
- The Government should bring forward legislation and an independent committee for an industrial strategy;
- learn from elsewhere. There are developed countries have valuable experiences and offer more targeted and effective industrial approaches, as the experience of the UK in implementing proper industrial strategies;
- a truly strategic government plan for a rapidly changing future by expanding the spending on industrial R&D in order to put the manufacturers at a competitive advantage with technologically superior counterparts from other countries.

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