

Kalkınmacı Devlet Yaklaşımı Bakış Açısından Sanayi Politikası

Industrial Policy within the Context of the Developmental State Approach

ÖZET

Sanayi politikaları en basit tanımı ile devlet yöneticilerinin sürdürülebilir büyümeyi sağlayabilmek, üretimde rekabet gücü elde edebilmek için almış oldukları bir dizi kararların tümüdür. Uygun sanayi politikaları sürdürülebilir büyümeyi sağlayan en önemli unsurdur. Sanayi politikalarının gerçekleşmesini mümkün kılan mekanizma ise mevcut kurumsal yapı aracılığı ile ortaya çıkmaktadır. Bu bağlamda devletin sanayi ve üretime yönelik bakış açısı, sanayi politikalarının belirlenmesinde önemli rol oynamaktadır. Bu bakış açısından hareketle, çalışmada sanayileşmenin kısa tarihinden bahsedilecek, kalkınmacı devlet anlayışında sanayi politikalarının ana konusuna değinilecek ve kalkınmacı devletin büyüme üzerindeki olası etkileri açıklanacaktır.

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ABSTRACT

In the simplest definition, industrial policies involve all of the decisions made by state administrators to ensure sustainable growth, and to gain competitive power in production. Appropriate industrial policies are the most important factors ensuring sustainable growth. The mechanism that enables the implementation of industrial policies emerges through the existing institutional structure. In this context, the perspective of the state towards industry and production plays an important role in determining industrial policies. From this point of view, the study mentions a brief history of industrialization, addresses the main issue of industrial policies in the comprehension of the developmental state, and explains the possible impacts of the developmental state on growth.

Keywords: Developmental State, Industry Policy, Growth.

1. Introduction

Industrialization in its simplest form refers to the transition from the production technique based on manual power to the production techniques based on machine power. Industrialization appears whenever pure scientific efforts (physics, chemistry, and other natural sciences) influence technical sciences (engineering fields based on inventions). It is possible to express the factors that result in the transformation of scientific knowledge into technical sciences throughout the industrialization process as follows:

- ▶ Acting in accordance with the rational mind that emerged with the Renaissance and Reformation movements; scientific method and rational thought, and to obtain scientific research guidance,
- ▶ State intervention that is limited to the free enterprise system and the aristocracy supporting this system,

- ▶ High-profit rates and new markets for entrepreneurs who would make industrial production, and the presence of nation-states which are strong enough to protect these markets,
- ▶ The presence of patent systems through which free entrepreneurs may preserve their machines or inventions,
- ▶ Developments in the monetary system, increase in money supply,
- ▶ Increasing demand for new goods (clothing, furniture, food, and beverage),
- ▶ Geographical discoveries in the 15th and 16th centuries, a tremendous amount of capital accumulations, and the presence of colonial markets.

As a result of these factors that led to industrialization, as of 1765, the inventor named James Watt invented the steam engine to convert water power (steam power) to kinetic energy. This invention resulted in the dawn of water- and steam-powered mechanical production facilities. All the requirements of the industrial society were met in England by the end of the 18th century. According to Yeldan (2010: 24), these requirements are in the form of an economic order that promises high profits for private enterprises under capitalist conditions and a powerful state that upholds the interests of such capitalist class, not only within the country but also globally.

Along with the dawn of the Industrial Revolution; production, trade, economic and social order have altered irreversibly. Due to the emergence of mechanization in agriculture, the need for manpower decreased, and the idling labor force in rural areas migrated to the cities and increased the urban populations. The rise in urban populations led to the emergence of new practices regarding urban administration in such areas as infrastructure, roads, housing, health, and transportation. As a result of the Industrial Revolution, a new social class emerged that migrated to the cities, worked in factories, and had nothing to offer but its labor force. New concepts such as labor contracts, salary/wage calculations, social rights, leave of absence, and retirement began to be discussed with new social organizations such as unions and associations that would vindicate the rights of the new social class known as the working class. The Industrial Revolution and industrialization movements irreversibly changed the social order and economy. Industrialization sustained the development in the form of the 2nd, 3rd, and 4th Industrial Revolutions, along with new improvements in technical sciences and engineering. Following the 1st Industrial Revolution, which refers to the production facilities utilizing steam-powered machinery, the 2nd Industrial Revolution was realized as of 1870 during which the first mass production line including the electric-powered internal combustion engine technology was established. The overall features of such a change, also known as Industry 2.0, involve the use of electric-powered mass production lines. With this revolution, it is possible to claim that machines were mostly introduced to the mass production lines, the number of workers operating the mass production lines decreased, however, the level of knowledge of the workers increased. In the industrialization process, which involved a new production period with Industry 3.0, the programming of production utilizing electronic and information technologies (first examples of computer systems and coding) was introduced. The process that was initiated with the use of the first programmable logic controller (the first example of robotic arms) in 1969 has begun to be replaced by Industry 4.0 since the 2000s. The current period is referred to as the Fourth Industrial Revolution or Industry 4.0. It is a form of production in which production persists through autonomous machines and virtual environments, where techniques such as artificial intelligence, three-dimensional printers, the internet of things, cellular transport system, autonomous interaction, and virtualization take place. Each of the newly emerging changes in the history of industrialization alters society and

economic relations irreversibly. Societies that initiate, comprehend, and develop such changes stand out economically. Therefore, in the next section, the nexus of technological development, industrialization, and competitive power is discussed.

2. Industrialization, Technological Development, and Competitive Power Nexus

The term industrialization is often used interchangeably with the concept of technology, which includes knowledge and skills. If a society industrializes based on knowledge and ability (technology), it means that the products produced by that society gain an economic advantage (competitive power). There is a strict, complex, and inseparable interaction among industrialization, technological development, and competitive power in today's economic order.

Technological development can be achieved by courtesy of scientific research and effort (theoretical science) and applied sciences (engineering), which are the research areas of natural sciences such as physics and chemistry. Therefore, technological development is not a direct consequence of theoretical science, but an outcome of its application field, but it does not completely disaffiliate from theoretical science. As a result of engineering practices that transform theoretical science into technological innovation in the field of application, a new product emerges in the industry or manifests itself as a reduction in production costs. The new product which is equipped with technological innovations, however, gains competitive power in domestic and foreign markets. This relationship is explained by Günay (2002: 12) as follows: science: to explain, technology: to do, and industry: to produce. In this respect, it is not possible for countries that do not have a solid foundation in the field of theoretical science to achieve technological innovation and to produce highly competitive products within the industry.

Countries that implement industrialization policies in order to achieve sustainable economic growth should monitor the dynamics of technological development and produce highly competitive products. Competitiveness can be described at either the firm-, sector- or country-level. Nevertheless, the overall feature is that the goods and services produced are at a level that can compete with factors such as price, quality, design, reliability, and delivery on time. In this sense, competitive power cannot be gained without adapting technological innovation to production. From this point of view, gaining competitive power and producing products with a high level of value-added in the industry involve a socially holistic matter. In this context, the industrial policy decisions and practices of the state are crucial. Therefore, in the next section, developmental state theory is briefly explained, and then the practice area of industrial policies within the developmental state approach is mentioned.

3. Developmental State Approach⁶

In fact, the developmental state is a model of achieving the ideals of industrialization under the leadership of the state, gaining competitive power, realizing and maintaining growth with productivity increase in countries that could not contribute to the first industrial revolution with their own internal, historical conditions (although somewhat colonial and belligerent).

Throughout the post-WWII period, it was observed that underdeveloped (undeveloped) countries located in the Far East and partly in Latin America maintained progress using the methods they applied during the development process (Yaşgül, 2013: 124). The concept of developmental state was first coined by Chalmers Johnson in 1982 with reference to the Japanese state and its state approach. According to

⁶ For a detailed reading on the developmental state approach, see Chang (1993), Evans (1995), Rodrik (1995), Weiss (1998), Rodrik (2009), Stiglitz (2011), Wade (2018).

Johnson (1982), it should be asserted that the developmental state structure has led to the growth of the Japanese economy. This is based on the development of an exporting strategy suitable for production by transforming the domestic market structure into strategic industrial production facilities (Johnson, 1982: 73).

Besides, in his explanations regarding the extent to which the state would intervene the industrialization process, Johnson emphasized the regulatory as well as the developmental structure of the state. Accordingly, in the first industrialized countries, the state assumed a “regulatory” role by intervening less in economic processes, whereas it assumed a “developmental” role pertaining to industrialization policies in late-industrialized countries. Thus, the regulatory state was concerned with the competitive environment, consumer rights, and market maintenance issues. In late-industrialized countries, the developmental state implemented an industrial policy that guided and supported the production activities of the private sector (Johnson, 1982 as cited in Oğuz, 2013: 108). In this context, great differences emerge between the institutional structure and political environment that the developmental state has acquired/developed in the implementation of industrial policy, the institutional structure, and the political environment of the regulatory state.

The developmental state aimed to conclude the production phase of the country’s development by guiding production and industrial policies over the period of 1945-1970 during which the Keynesian welfare state⁷ has also been expanded. Nonetheless, the developmental state approach has been neglected for a while due to reasons such as the economic crisis trends that emerged since the 1970s, the Latin American debt crisis, neo-liberal attacks, the clash between the developmental state approach and neoliberalism, as well as the shortcomings of the developmental state approach caused by the 1997 East Asian Crisis (Caldentey, 2008: 28). Although it has been neglected for a while, the understanding of the developmental state has been characterized by the aim of a sustainable industrialization policy under the title of the new developmental state model. Accordingly, it was emphasized that the new developmental state model should have ideals not only for catching up with developed countries but also for keeping up and sustaining the development level. In the new age, the developmental state struggles not only to catch up with the level of the developed country but also to keep up with the level of development (Yaşgöl, 2013: 126). This change of mind of the new developmental state altered the industrial policy to pursue new policies in the axis of technology, productivity, and growth. In fact, in the industrial policies of both the developmental state and the new developmental state, there is an effort of transforming the most efficient production techniques of the period into technological, high value-added products/or an effort to produce that product. Therefore, developmental state theory, in general, adopts concepts such as growth, productivity, and national production strategy in industrial policies. Following this section of the study, the perspective of the developmental state on industrial policies is examined and the impacts of these policies on growth are discussed.

7 The welfare state refers to a supra-class state in which the state plays an active role in overcoming the problems faced by the production processes and economic crises within the capitalist society, which emerged as the economic reflection of liberalism, and where the living standards of the whole society are improved. The welfare state involves an understanding of the state built on market dynamics, as well as giving importance to the social benefits and interests of the society.

4. Industrial Policies within the Scope of the Developmental State Approach

The concept of development can be described as the course charted towards growth and improvement goals in countries that cannot provide sustainable growth and improvement with their own internal dynamics. In this context, the institutional structure and political environment that the developmental state has acquired/developed in the implementation of the industrial policy must be unique for each country. In this sense, countries that have determined a roadmap for industrial policy in the studies discussed in the literature have provided analyses as follow:

In China, as of the mid-1970s, the state first provided the industries equipped with light technology with subsidy measures to support their growth as an industrial production policy practice. Especially since the second half of the 1990s, heavy industries such as automotive, steel, and chemistry have been subsidized. In South Korea, industrial policy has been determined by development plans since the 1970s. As the first step of these plans, South Korea has aimed to train human capital as intermediate staff capable of knowing about industrial production processes. Besides, at the beginning of the period, markets that are subjected to international trade produced with raw materials of the country were determined and supported. Some of the industrial production facilities are devoted to research and development activities. In the decisions made at the beginning of the 1990s, prioritized areas were determined as sectors producing high-technology products, informatics-software, and automotive. Taiwan initiated its industrial policy practices primarily as import substitution and continued with export-led industrialization. In 1990 and later, the state preferred strategic industrial areas and supported industries containing high technology (Maroufkhani, 2015). Especially for West Asia and China, industrial policies have become supportive of high-tech and highly productive sectors as of the mid-1990s.

In Latin America, during the 1990s, along with the decrease of political conflicts, import substitution practices that increased the gross national product have been observed. Furthermore, it was tried to encourage the selected sectors (health, chemistry, and education) with state support and practices that encourage industrial production. However, the anticipated efficiency in industrial policies could not be maintained due to the macroeconomic balance that could not be achieved in Latin American countries in general (Caldentey, 2008).

In the African continent, the state has an active role in industrial policies along with strict controls, incentives, and regulatory practices. Moreover, there are some negativities restricted by the institutional structure of African countries. In other words, the deficiencies in the institutional structure prevent the state from fully controlling and furthering the industrial policy. Nonetheless, there are developments, especially in energy production areas. Although Africa initiated its developmental industrialization policies quite late (the early 2000s), it remains promising for the coming years (Andrews and Nwapi, 2018: 49).

The late developers of the 21st century in terms of industrial production have taken important steps since the 1990s to determine appropriate industrial policies. Their first argument upon determining industrial policy is formed on learning and innovation. Countries that can combine learning and innovation activities with research and development activities can reveal efficient, environmentally-friendly, and cost-reducing production methods. In this respect, the industrial policies of the new developmental state understanding are formed by learning, innovation, research, and development as well as a series of engineering practices.

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