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The Industrial Revolution and the Ottoman State: Its' Reflection on the Economic Policies of the Tanzimat Period

Perihan Hazel KAYA

Selcuk University

Abstract: With the industrial revolution of the 18th century, a new world order was formed such as mechanization, large-volume production, raw material and market needs, division of labor and specialization. The Ottoman state has been in an economic structure based on agriculture, trade and small-scale workshops since the classical period. At this point, industrial production is carried out through state-controlled guilds. The Ottoman state has developed new regulatory policies since the Tanzimat period in order to adapt to this structure with the industrial revolution. It has introduced innovations and reforms in its efforts to support competition and domestic industry, such as the establishment of factory and industrial facilities, incorporation studies, the establishment of industrial schools, and the construction of railway networks. As a matter of fact, administrative weaknesses, deterioration of the timar system, inadequacy of the treasury, traditional economic mentality, capitulations granted to foreign countries, land losses and wars increased foreign dependency and caused damage to the domestic industry. In addition, the fact that the industry did not operate in an industrial order benefiting from capitalist accumulation and did not allow capital accumulation, and the accompanying competent personnel and scientific deficiencies caused the industrial revolution to have negative consequences in the Ottoman state. In this study, it is aimed to examine the effect of the industrial revolution of the Ottoman state on the economic policies of the Tanzimat period, the results it revealed and the applications made.

Keywords: Industrial revolution, Ottoman empire, Tanzimat period, Industrial policy

Introduction

In today's economic policies industrialization is seen an important problem. Beginning from industrial revolution, which emerged in 1750s and forms the foundation of economic development in modern meaning, for most economies, industrialization has been primary priority. Industrialization is a measure of the developedness and less developedness levels of country economies. The main difference between the countries whose life standards are high and the ones whose life standards are low, arises from industrializing or not industrializing.

In 18th and 19th centuries, two elements, which especially change European societies, are mentioned. The first of them is a political and administrative structure in France and England, and the second is the development of capitalism in England. Industrial revolution, which began in England and, later, enlarged its effective area in West European Countries, changing the existing socioeconomic structure of Europe, initiated a full-scale transformation. Firstly, depending on noticing surplus value in agricultural sector of England, city centers showed an intensive development and formed a market quality for surplus value in rural areas. In view of the reasons such as the increasing demand, sufficient capital accumulation and adaptation of social structure to change, industrialization rapidly affected Europe. Transformation experienced in weaving sector became the first step of industrialization, later, with invention of machines working with steam power, the first phase of industrial revolution was completed.

In Ottoman State, industry, which has been tried to be developed beginning from 18th century, although it is not in parallel with the West, remained under state monopoly at the beginning. The power of central authority, inadequate private enterprise and mercantilist mentality in the West are among the main causes of this development. In addition, centralist control of government in the military, agricultural and mining areas led

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industrialization to take place in the form of certain factories and in certain cities. This case lowered technological productivity in industry and led industry to remain in narrow area and in the form of craft-typed organization. Another factor here is that private sector slowly leaves its power to central authorization runs into industrialization approach, especially tried to be newly developed in 18th century, together with Tanzimat beginning from 19th century. In the times, when an industrial movement similar to that in the West was tried to be started, that central authorization gains power led a large part of industrialization- especially large scale- to remain under state monopoly.

At the present time, the subject how industrial revolution reflects to the economy policies of Ottoman State in Tanzimat Period is an important study subject. Why did not Ottoman State succeed as much as pioneer countries that initiated industrial revolution process? In this study, how Ottoman State developed its economy policies after economic policies and why it was not included in Industrial Revolution were studied in the framework of internal and external factors in the context of Tanzimat Period. In the direction of this aim, first of all, in pre-industrial revolution, a brief analysis of industrial activities and economic structure in Ottoman State was made. Following this analysis, setting out from either these structures or developments experienced in Europe before Industrial Revolution, how Industrial Revolution shaped the economy policies of Tanzimat Period was studied. Lately, the causes of why Ottoman State included in industrial revolution were identified.

Industrial Revolution: Overview

The first and the most important stages of industrial revolution emerged in England. According to Wallerstein, the causes of that mechanization began in England are the increasing demand, sufficient capital, agricultural revolution and development of land-rent patterns enabling demographic growth (Wallerstein, 2011). In England, which is the leading geography, where government intervention is limited, circulation of private capital is supported, new inventions and technologies in industry were begun to be seen in the early 18th centuries with also contribution of social triggering. However, it is necessary to state that industrialization did not consist of only England. Beginning from the early 18th century, in the development of English cotton weaving industry, the effect of foreign markets was not also denied. Moreover, in 18th century, England domestic market did not fully enlarged, instead of this, it was seen that an growth actualized toward the markets in North America, Continental Europe and Third World Countries (2). However, England overtook Netherlands, which is in front of it in weaving industry, in time. The main reason for this is the intertwining of the English weaving industry with agriculture and the transfer of Netherlands capital surplus to English entrepreneurs. (3). Industrial revolution especially showed itself in cotton weaving industry. However, [the first] modern factory was founded in the third quarter of 18th century (Wallerstein, 2011). In this sense, the number of cotton weaving factor was 900 in 1797, this number amounted to 1407 in 1850s (Chapman, 1972). When regarded to the cause of that industrial revolution first emerged in weaving industry, it can be attributed to the closeness of raw material to the regional geography. Depending on specialization and technical development, industrialization also increased rapidly.

Industrial revolution dating from the late 18th century to the early 19th century is a great modernization age characterized with invention of machinery used for making automatized production processes in manufacturing, mining and agriculture. Together with modernization, factories were built and, by means of these factories, mass production was made it possible. Together with mass production, production costs, thus, prices decreased and so it enabled ordinary people to be able to reach the products they cannot buy earlier. Depending on the developments in production, the developments in transportation enabled the merchants to transport and market their goods and services to more remote distances (Curley, 2009).

With beginning of industrialization (1750), manufacturing industry productions of European Countries began to rise. In 1750, while total share of all Europe in world production was 23%, this number rose to 28% in the early 19th; 53.2%, in the second half of 19th century and 61.3% in the third quarter of 19th century (Freeman-Louçã, 2001: 183). In this context, manufacturing industry under control of Third World Countries passed to monopoly of European Countries.

In pre-industry period, in Europe, especially in England as well in China and Ottoman Empire, tax rates generally ranged at the low levels. In these society, mostly based on agriculture, as the cause of that tax rates are low, it was shown that the prevailing classes in the countries above mentioned have high income resources even if there is no tax income. The element providing this wealth to the prevailing sector of interest is the lands (Clark, 2013). As a natural result of this case, trade was encouraged and industrialization began to gain importance.

The technological and economic developments in the time passing from invention of script to industrial revolution remained limited with a constraint effective area. Therefore, over hundreds of years, a large development and variation was not seen in average real wages and life standards of about one billion of people (Skousen, 2003). Together with industrial revolution, radical changes were experienced in economic mindset and economic structure. A period, in which modern science and empirical information were applied in production process, began. Instead of producing for livelihood and limited economies like family economies, production approach for national and international markets has emerged. Small production units making production with traditional methods developed and their effective areas enlarged. In other words, instead of family enterprises, companies and public institutions have begun to take place in production, Labor factor has directed to goods and service production from the activities related to the production of primary products. Instead of human labor, as a complementary of it, intensively and widely use of capital resources emerged. The new social and professional classes that work with production tools other than land (Deane, 1979).

Industrialization Activities Before Tanzimat Period

In Ottoman State, an Europe-similar industrialization was not fully actualized. While Industrial Revolution introduced a transition from agricultural production to machinery technology, this process began to show itself more differently in Ottoman State. Ottoman State having a very large geographical area, for being able to control this geography, had to have a strong military and financial structure. In view of this, in order to be able to keep its power, Ottoman State gave importance to building factories and manufacturers in military areas. Thus, as heavy industry in Ottomans, shipyard, ammunition and gunpowder factory are seen, and these are mostly established in Istanbul and some cities. To give an example, in İstanbul, Sinop, Izmit, Gelibolu and Suez, shipyards were built and, in addition to these, gunpowder factories were established in the places such as İstanbul, Selanik, Gelibolu, Bor and İzmir (Berkes, 1975). When regarded to pre-Tanzimat Ottoman Industry, It is seen that there is private sector as mostly small crafts shops in industry institutions and that large majority of industrial institutions under state sector are mostly military-aimed industrial institutes. In Ottoman State these first industrial institutions and attempts, whether belong to public sector or private sector, remain very weak compared to European Industry. But these industrial sectors established in the eras of Mahmut II and Selim III formed a foundation for the next sectors.

There are idiosyncratic features of Ottoman Industry of Ottoman Industry that began to develop beginning from 18th century, On the one hand, it began to develop under the effect of the industrialization in the West, on the other hand, it contained local features changing time and space. However, at the local level, it is difficult to say that the desired results are reached in industrialization in broad meaning. In Ottoman State, another cause of that industry that began to newly develop in 18th century is not more spread to private sector is the power of craft organizations. Strong craft organizations remained closed to industrialization and facilitated industrialization to be mostly collected in hands of government.

Government, in order to increase control power in economy, leaving minor soldier salaries to treasury, ignored them to undertake new duties such as housekeeper, secretary, observer in the various areas. This case led industry to be kept under control of government in certain centers and to be kept closed to the changes from the aspect of cooperation, productivity and technological developments. That craft-type organization prevails in production kept industry away the industry from differentiations to start a transformation in capitalist sort (Genç, 1991). As a result of the support government for craft organizations i.e. guilds, an important case appeared for industrialization in the next period. With this method, first of all, production forms that emerge or can emerge out of guilds were impeded.

Beginning from the era of Fatih Sultan Mehmet, it is possible to see public enterprise especially in military industry area, armory and shipyard built in the era of Fatih are seen as a large industrial institutions serving army. After 18th century, large scale public enterprise industrial institutions have increasingly continued. Especially in Istanbul, after 1718, largely public enterprise industrial institutions were established. Silk manufacturers (in Üsküdar), paper factory (in Yaloba 1744-1745), cannon foundries (in Hasköy), gunpowder factory (between Bakırköy and Yeşilköy), rifle factory (in Levent Çiftliği and Dolmabahçe), glass and porcelain manufacturing (in İncirköy) and kâğıthane paper factory are some of these (Wiener, 1992).

Ottoman State did not wait for Tanzimat reforms for receiving European industrial techniques. In 1790s, action of Selim III to form Nizam-ı-Cedit is the first action, in which European industrial techniques were begun to be used in military industry. After 1793, in such a way that it will cover a larger area, manufacturing of cannon,

cannon ball, gunpowder and mine containing European methods and equipment was introduced to Ottoman State.

After Selim III, the efforts to take Western industrial techniques interrupted in the first 20 years of the era of Mahmut II. Following slowdown of 20 years, the efforts to transfer European industrial superiority to Ottomans continued again. On the other hand, in the same period, it is seen that Ottoman State was not in very back of the West in military, mining, clock and the other industrial areas but it is seen that it has some difficulties in supplying raw material. In the essence of industrial enterprise covering the eras of Selim III and Mahmut II, there are a sort of import substitution industrialization regarding arm manufacturing cannon and rifle as well as fez and clothing the solders will use, triggered by renewing action (nizam-ı cedid), especially initiated in military area, in state and society life. These polices and plants could not be sustained, because they were not built in and effective resource supply and supply chain like in the West. Some of these attempts are given as follow together with foundation years (Bozdemir, 2011).

Table 1. The factories founded in pre-tanzimat period

Years	Factory
1804	Beykoz Paper Factory
1812	Beykoz Leather and Shoes Factory
1822	Paşabahçe Monopoly Spirit Factory
1827	Eyüp Thread Factory
1830	İslimye Broadcloth Factory

Resource : Bozdemir, 2011

In Ottoman State, after the first enterprise in 1804, for a long time, any factory was not opened in the different places of the country. However, Mahmut II (1808-1839), after a long time his acceding, in 1827, opened a thread factory in Eyüp (7). In Istanbul, in 1810, Beykoz Leather Factory, founded by an entrepreneur called Haydar Bey, being bought by Sultan Mahmud II, was given to the service of army. In the era of Mahmud II, for meeting fez need of army, Fez Factory (Fezhane) called Defterdar Factory, was founded in 1835 (Arslan, 1964). While good developments stated above were experienced in the era of Mahmud II, in addition, domestic revolts much more increased. Among these, events such as that Greece declares independence and that Mehmet Ali Pasha, Egypt Governor, revolted against central administration can be accounted. These cases experienced pulled the course of the country to a different dimension and state began to weaken every passing day. While Ottoman State, on the one hand, lost its political power, on the other hand, slowly coming in the effective area of capitalism, it also began to lose its economic power. Based on this, most economic historians said that Ottoman State did not have sound and preserving economic policy by 1830 (Sayar, 1986).

Also in the first half of 19th contrary, civil war, political problems, improvement movements and economic troubles continued. Especially removal of Guild of Janissaries, separatist movements in Greece and Egypt highly disturbed the domestic and foreign policy and economic balances. Ottoman State applied to some economic precautions to be able to reorganize economic balance disturbed. The most traditional one among these is adulteration of the money. Especially between the years of 1809-1831, very frequent applied adulterations demonetized money. Thus, silver content of Ottoman kurus that is 5.9 g in 1808 regressed to 0.5 g in 1831 (Erdem, 2006). As a result of adulterations, purchasing power of the money decreased; budgetary deficits increased, because tax income decreased; costs of domestic borrowing increased and repayment became very difficult.

As known, Ottoman State signed Baltalimanı Trade Treaty with England on the date of August 16, 1838. With this treaty made, Ottoman State was obliged to make heavy concessions to English Government to be able to suppress the revolt of Mehmet Ali Pasha, Egypt Governor in exchange of not disintegrating its lands. Because, together with this treaty, English merchant gained the quality that has to be given the most privilege and, thus, had equal rights with the domestic merchant. In a few years following this, similar treaties were made with some other European countries. However, it can be said that the treaty of interest brought a partial initiative through foreign trade to Ottoman State. Because it is known that this treaty made some contribution to Ottoman Budgetary due to comparative advantage Ottoman State has about agricultural food prices in the period of Free Trade (1840-1870) Policy applied with European countries. However, in the years following this decision Ottoman administrators made with good intension for the sake of not losing Egypt, Ottoman State could not keep in step with industrial revolution adequately. Domestic Ottoman Industry highly sweating in keeping comparative advantage in international markets was heavily damaged; foreign capital was gradually strengthened; foreign trade balances were much more disturbed and the country was obliged to borrow from abroad (Erdem, 2016).

Industrialization Movements in Ottoman State After Tanzimat Period

The effort of Ottoman State to industrialize gained a different quality beginning from 19th century. The first of the main elements leading this difference is European industrialization, which appeared beginning from 1750s and also affected Ottoman State like all states of the world. The second factor is economic privileges, which are called capitulation and which began France and became common in most European countries. It is also possible to include trade agreements in the second group. Thus, in parallel with these two main factors, under the pressure of orthodox craft organizations, Ottoman industry remaining on the back of Europe was tried to be stimulated again especially after Tanzimat.

Together with mercantilism, that national capital accumulations strengthened in the West facilitated industrialization. However, in the same period, in Ottoman State, applications against mercantilism pushed industrialization to slow development. Again in this period, That Ottoman central government weakens negatively affected industrialization. As mentioned earlier, in Ottoman Empire, an Europe-similar industrial structure did not form. While Industrial revolution essentially expresses the transition from agricultural production to machinery technology, this process emerged in Ottoman State in the different areas. In Ottoman Empire, which has a large area in terms of geographical borders, being able to control geography in the hegemonic area was possible to keep military and fiscal power in a functional and sound structure. From this aspect, the state-owned factories and manufactories were mostly built to use in making military tools (Murphey, 1992).

Industrialization activity in Ottoman State began in 19th century in the form of transition from livelihood small scale industry, based on small hand crafts, to mass production with factory. Tanzimat had been a period, when the most remarkable steps were taken in industrial area. When the Rescript of Gülhane was announced, much as provisions related to industry did not take place, in this period, that statesmen realized how important economy was for a country and that radical steps were taken in industrial area is an important case.

Ottoman Industry that began to develop in parallel with post- Tanzimat renewing movements sustained this development as two dimensionally. In Ottoman State, public enterprises formed the first leg of industrialization movement gaining acceleration beginning from 19th century. Public enterprise actualized as industrial institutions requiring enormous labor. The second leg of the industrialization efforts in Ottoman State formed private enterprise organization. This sort of organizations is generally seen as enterprises working less capital and less labor in very local meaning (Pamuk, 2005).

The statesmen of Tanzimat Period, especially Mustafa Reşit Pasha, made several works we can say “operation for strengthening industry” to develop industry. It is possible to divide the works in this area into two sections. The period of about 20 years, in which statist polices prevail covers the first period and the second period between the years of 1860-1876, in which private sector supports industrialization. The industry between the years of 1840-1860, qualified as “First Period” mostly continued as an industry adopted and developed with government support and leadership. The fact that private entrepreneurs are not seen in this period and that such a discussion is not experienced in İstanbul or all of Ottoman State arise from that public sector does not continue a long time. Whenever the government supports private sector, it is seen that investments are stimulated. When reached 1960s, Ottoman top bureaucracy realized that it was remained in the back of Europe and understood that it was time to make something about it (Seyitdanlıoğlu, 2009).

After Ottoman State saw these developments, it began to support industrialization efforts via private sector. For these efforts to be able to realize, it made efforts to take the following precautions: At the beginning, considering to reduce import customs, it gave importance to increase competitive power of domestic industry (Önsoy, 1984).

Together with Tanzimat, until the beginning of Crimea War a number of state-owned industrial institutions was built. In this transformation process, which can be qualified as an exceptional period in Ottoman history, as mentioned earlier, industrial institutions directed to manufacturing and domestic raw material were put into operation. Most of these industrial institutes were built in İstanbul and around Istanbul (Clark, 2013). Together with Tanzimat, efforts to strengthen central government brought together intervention of government to economic life with it. Naturally this intervention also reflected to industrialization area. Ottoman Industry remaining behind Europe with Industrial Revolution and trade agreement made was tried to be developed by the support of government with priority. The main aim here is seen as meeting the main needs of especially army, and government and increasing tax incomes.

Table 2. Large scale factory founded after tanzimat period

Activity Area	Name of Factory	
Nail and ceramic	Beykoz Çini Factory (1845)	
	Yıldız Çini Fabrika-i Hümayunu (1890-92)	
Electricity Production	Dolmabahçe Gasworks (1853)	
	Beylerbeyi Sarayı Gasworks (1862)	
	Yedikule Gasworks (1880)	
	Kadıköy Hasanpaşa Gasworks (1891)	
	Silahtarağa power plant (1910-13)	
	Üsküdar Elektrik Factory (1911)	
Leather and Shoes	Osmanlı İttihat Saraçlık Incorporated Company (1913)	
	Beykoz Shoes Factory (1884)	
Textile and ready wear	Feshane-i Amire (1839).	
	İslimye Şayak Factory (1840).	
	Hereke Fabrika-i Hümayunu (1843-45).	
	İzmit Çuha Factory (1844).	
	Hereke Çuha Factory (1845).	
	Bursa İpek Factory (1846).	
	İzmir Muslin Boyama and Basma Factory (1847).	
	Bakırköy Bez Factory (1850).	
	Izmir Fabric Factory (1861)	
	Kırkağaç Çırçır Factory (1876).	
	Izmit Silk Factory (1880).	
	Adana Milli Mensucat Factory (1907).	
	Chemistry	Izmir Oil Factory (1850).
		Beykoz İspemecet Factory (1863).
Second Izmir Oil Factory (1870).		
Tanen (Asit) Fabrikası (1891).		
Küçükçekmece-Osmanlı Kibritleri Factory (1898).		
Galata Yüksek Kaldırım Battery Factory (1917)		
Machinery and Metal	Zeytinburnu Iron Factory (1843).	
	Yedikule Şimendifer Factory (1843).	
	Eskişehir Railroad Factory (1894).	
	Şakir Zümre Stove Factory (1918-23).	
	Zeytinburnu Mavzer Factory (1902).	
	Zeytinburnu Acid and Ether Factory (1902).	
	Zeytinburnu Chemistry Laboratory Factory (1902)	
Defense Industry	Istinye Shipyard (1856).	
	Cebahane-i Amire (Savaş Mühimmatı İmalatı) (1868).	
	Kayseri Güherçile Factory (1891-92).	
	Konya Güherçile Factory (1896).	

Resource: Erdem, 2016:24-25

If regarded to the activities areas of industrial enterprises mentioned above, as in industrial revolution that began in England, also in Ottoman Industrialization, textile and ready wear sector stand out. Furthermore, also before Tanzimat, it is seen that weaving factories were active. So, it is seen that total of 14 factories were founded in this century. Hence, it is understood that effect of industrial revolution showed itself in sectorial basis. However, in addition to leather and shoes sectors (3 factories) and tile and ceramic sectors 2 factories), whose competitive power are traditionally high, in the areas of machinery and metal (7 factories), chemistry (6 factories), defense (4 factories) and electricity production (6 factories), it is understood that a number of factories were active (Erdem, 2016).

Evaluation of the Effects of Industrial Revolution on Ottoman State

There are very different views about why Ottoman State could not keep in step with industrial revolution. According to Rhoads Murphey, Ottoman State continuously supported the developments in three areas, among these developments, renewals in military area, mining and clock making and application of mechanical movements in the other works. The main factor in acquiring target supporting the development in these three areas continuously has been the supply of material and manpower (Murphey, 1992).

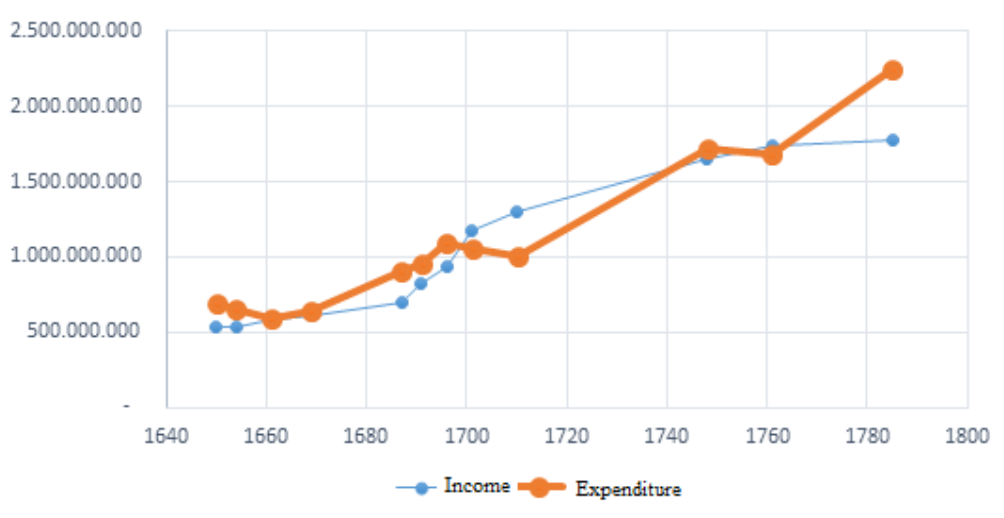
Ottoman State waited for having the new industrial techniques of Europe until 1840s. Selim III brought contemporary European techniques, used in cannon, cannon ball, mine and gunpowder, to the country in the years of 1793-1794. Ottoman society, as of its structure, is, in fact, a society, which is open to new ideas and willing to use foreign technologies. However, the ways of economic and technological exchange and contact with Europe began to slowly disappear toward the late 17th century. The reason for not closing this gap is that the natural resources of mineral, timber and other materials gradually decrease. But the effects of this decrease in the resource much more increased due to the fact that the state is consciously excluded by North Atlantic economies. In the light of all of these data, it will be certainly true to say that Ottoman State has an industrialization policy. The scientific developments followed and technological investments and inventions made certainly form the most important beginning factor in industrialization of a country. Unfortunately, Ottoman State could not completely follow these developments, did not take the necessary step in especially education area in time for industrializing and, the efforts made in forming this structure remained weak. This case can be seen as one of the cause that Ottoman State is not industrialized (Ünal, 2010:101). Industrial Revolution extremely negative affected Ottoman State especially from economic point of view.

Table 3. England 1381–1700. Annual production in agriculture, increase rates of labor force and labor force productivity

Years	Production Increase	Labor Force Increase	Productivity of Labor
1381-1522	0.01	-0.01	0.02
1522-1700	0.38	0.25	0.13
1700-1759	0.79	0.22	0.57
1759-1801	0.85	0.44	0.41

Resource : Şahin, 2019:6

As in pre-industrial revolution society, also in Ottoman State, economy was largely based on agriculture. A large part of state revenues consisted of agriculture and agriculture-based activities and war incomes. In statesmen and bureaucrats, the thought that “the power and continuity of a state is possible with keeping the existing order” was dominant. Over four centuries dating from the late 14th century to the early 18th century, in Ottoman agricultural sector, the fluctuations in production, labor force and productivity of labor occurred, and a stable increase could not be provided, because Ottoman agriculture consisted of producers making production in small lands for only livelihood (Şahin, 2019). Agricultural techniques did not change for thousands of years and remained in a primitive structure. As a result of this mindset, Ottoman State was late in the process going to industrial revolution and, although it was one of the most powerful countries of the period from military, economic and political point of view, it cannot be included in industrial revolution.



Graph 1. Budgetary incomes and expenditure (akçe)s in the period of 1600-1785 in ottoman state
Resource: Kaya, 2021:441

After 1500, when Spain silver began to flow in Ottoman economy, fiscal balance of Ottoman State disturbed and, with the effect of the wars lost, government budget began to have a deficit beginning from this date. Since a large part of tax incomes is expensed with military aim, finance of Ottoman State came into a heavy pressure in war period.

By 18th century, high birth and death rates kept in balance classical demographic structure in Europe. However, in 18th century, together with the increase of agricultural productivity and diversity, this case began to change. Together with the developments such as effectiveness in diet, improvement in health conditions, high life standards, etc., the deaths experienced due to starvation, war and pandemic have begun to decrease and average life duration to increase. As a result of these developments experienced, Europe population that is about 100 to 200 million reached 450 million at the early 20th century. In the essence of these developments experienced in demographical structure, the increase experienced in agricultural production and productivity play role. Agricultural revolution and demographical revolution is the most important elements for industrialization. In the pre-industrial revolution period, Ottoman State could not realize either agricultural revolution or demographical revolution (Kunt et al., 1997). As a result of all of these developments, we can summarize the effects of industrial revolution on Ottoman State as follows:

- In Ottoman State, small workshops and handlooms were closed. So, unemployment increased.
- Agricultural production reached the level of market economy from livelihood level.
- While export was decreasing, import increased.
- The value of Ottoman currency decreased.
- From economic point of view, dependency on Europe increased.
- Ottoman State became open market of Europe.
- Ottoman State, due to its need for raw material and market, was begun to be occupied by European states.
- Regression in economy accelerated political collapse.

Ottoman Empire remained “strange” to new world system, which began before industrial revolution and reached summit. It could not adapt to, especially the production, foreign trade and financial system of the period, systems giving direction to world economy and could not bring a national identity to bourgeoisie, whose majority consist of foreigners. These cases of interest paved the way for economic collapse of the country and, as a result of this economic collapse, it was unavoidable that political existence of Ottoman Empire ended.

Conclusion

In 18th century, while the first phase of industrial revolution in the West was experienced, Ottoman State remained incapable in predicting the results of this great transformation, thus, in keeping in step with this transformation. The reason for this incapability was based on long before the revolution, a long process dating to geographical discoveries, because lost silk and spice routes lost its importance due to new trade routes discovered after geographical discoveries. These routes, which were the most important trade routes of that period, were under control of Ottoman State. The economy of Ottoman State was in a good condition thanks to customs and trade taxes it acquired through these routes in addition to tax incomes obtained from the lands. However, as a result of that these routes lost its importance, Ottoman State lacked these incomes. Gold and silver mines, which flowed to Europe from the lands newly discovered, led to inflation in Ottoman State. As a result of these developments, Income-expense balance of Ottoman State disturbed and government budget shook. After these negativities experienced, the political, economic and social problems began to emerge in the state. As a result, increase of the share of capital-intensive productions became possible with the presence of technology, information accumulation and capitalist thought. However, industrialization movements in Ottoman Empire did not form in a structure similar to Europe. While Industrial revolution is expressing the transition from agricultural production to machinery technology, this process appeared in the different area in Ottoman State.

Ottoman State attempted to much more scale industrial investments in 19th century compared to the previous centuries. Industrialization requires a total change not only alone but also in the other areas such as agriculture, trade, capital and population. However, in Ottoman State, that agricultural transformation that is necessary to industrialize, due to the problems inadequacy of labor force i.e. population to be employed in industry out of agriculture, lack of qualified staff, transportation and insufficiency of capital, it was completely dependent on foreign aids in industrialization attempts and these investments made did not become lifelong and permanent.

Scientific Ethics Declaration

The authors declare that the scientific ethical and legal responsibility of this article published in EPESS journal belongs to the authors.

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Author Information

Perihan Hazel Kaya

Selcuk University, Faculty of Economics and Administrative Sciences, Department of Economics Konya, Turkey
Email: perihaner@selcuk.edu.tr

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