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## Do crises offer oppportunities? An evaluation of manufacturing industry in Şanlıurfa (Turkey) under the conditions of the COVID-19 pandemic<sup>1</sup>

**Abstract:** The COVID-19 pandemic starting in 2019 in Wuhan, China, adversely affected social and economic life all over the world. Many scientific studies and reports by international organisations show that particularly industrial activities have declined drastically due to the pandemic. This purpose of the study is to reveal the impact of the COVID-19 pandemic on the manufacturing industry in Şanlıurfa province regarding the number of investment certificates, investment value and the number of jobs created. In this context, industry data of the years prior to and after the year 2019 were obtained from the Turkish Ministry of Industry and Technology. These data were analysed by qualitative and quantitative methods. According to the findings of the study, there was an increase in the number of investment certificates (37.4%) and the investment value (211.9%) but a decline in the number of jobs created (3.3%) in the manufacturing industry in Şanlıurfa in 2020, compared to 2018. However, in the first half of 2021, the number of investment certificates issued was equivalent to 84.6%, the investment value 175.7%, and the number of added jobs 36.9% of 2018. Reasons such as the economic support measures taken during the pandemic, the incentives that given to the Şanlıurfa province, supplying raw materials within the provincial boundaries have a considerable place in the manufacturing sector in Şanlıurfa to be less affected by the pandemic.

**Keywords:** COVID-19; geography; industry; manufacturing; Şanlıurfa

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## INTRODUCTION

The COVID-19 virus, which emerged in 2019 in Wuhan, China, has adversely affected human life, both socially and economically, all over the world. The highly contagious and fatal coronavirus caused deaths and severe health problems worldwide. According to WHO (World Health Organization), as of October 27, 2021, the globally cumulative death toll neared 5 million (4,953,246) and the number of cumulative cases reached 243,857,028 (World Health Organization, 2021). After the outbreak of COVID-19 in 2019, efforts to jointly respond to urgent health problems increased in many countries. COVID-19 has profoundly affected human life in a wide range and caused many problems in social and economic activities. In addition to serious health problems, Coronavirus created many difficulties in all economic activities such as industry, transportation, commerce, agriculture, education, the housing market (Marona and Tomal, 2020: 224), etc. but also caused notable changes in shopping habits, social relations, cultural activities (Szostak and Sułkowski, 2021: 88), entrepreneurial intentions and behaviours (Loan, Doanh, Thang, Viet Nga, Van and Hoa, 2021: 17), as well as many other daily life habits.

With the rapid spread of COVID-19, many countries implemented measures to withstand the coronavirus not only on the health front but also on the economic one (OECD, 2020). Steps, such as lockdown, curfew, state of emergency, closure of some workplaces or reducing the number of employees, shortening of working hours, etc., caused many disruptions in social and economic sectors and endangered production, employment, labour supply and daily livelihoods. However, many countries declared massive financial aid programs comprising fiscal supports and investment recovery package to support companies, households, vulnerable populations and reduce the effects of crisis (Kinnunen, Georgescu, Hosseini and Androniceanu, 2021: 17; OECD, 2020). Industry is one of the economic sectors most affected by the coronavirus pandemic in the last two years. Many studies prepared by international organisations and data of statistical institutions show that coronavirus has impacted all industries. The COVID-19 pandemic affected them in a much drastic and severe way as compared to the global financial crisis between 2008 and 2009 (Eurostat, 2021). Due to lockdowns in the COVID-19 pandemic, EU countries faced drastic declines in production and retail sales activities (Żak and Garncarz, 2020: 32). European Union (EU) industries were severely affected by the disruptions in multiple supply chains covering many economic sectors (European Parliament, 2021). Manufacturing, transportation and commerce are the most impacted sectors in European countries. Results of a survey conducted by Eurostat, in which pandemic impact is ranked on five-point scale from minor to severe, indicates that the pandemic has affected the manufacturing industry the most severely (5th level), concerning personnel, operations, supply chain, revenue and overall assessment (Statista, 2021). In this regard, the support chains are crucial to carrying out industry activities. As the supply chain is too fragile in the face of pandemic circumstances, any disruptions in this chain cause notable declines in the manufacturing and marketing chain (Karagöz, 2020). One of the areas that the pandemic has affected the most is Asian countries according to a series of firm-level surveys implemented by UNIDO, as of July 2021, to assess COVID-19 impact on manufacturing firms in Asian countries. The main problems they encountered are reductions in working hours, shortage of workers, condensing in demand, increased costs of inputs, a financial crisis such as repayment of loans, payment of wages and social

security contributions, shortage of cashflow (United Nations Industrial Development Organization – UNIDO, 2021). The COVID-19 pandemic severely affected especially small and medium-sized businesses and family or women-owned businesses (Maheshwari and Maheshwari, 2021: 69; Marjański and Sułkowski, 2021: 167, 175). World Bank's report reveals that the World GDP will shrink by 5.2% and 40–60 million people will face the danger of extreme poverty (World Bank, 2020). According to a report prepared by the International Monetary Fund (IMF) the global economy is forecast to grow by 5.9% in 2021 and 4.9% in 2022 (IMF, 2021). The restrictions imposed due to the coronavirus still have a shocking effect on economies and societies (Lipkind and Kitrar, 2021: 16; UNICEF, UNDP, Prospera, and SMERU, 2021).

The manufacturing industry includes transforming raw materials, substances and components into semi-processed or processed new products by machines or workers (UNDESA, 2008). Besides processed materials, the manufacturing industry meets the needs of many other industrial sectors, especially with the production of semi-finished materials. The product of the manufacturing industry has an important place not only in the industry but also in the services sector. Therefore, the manufacturing industry is the engine of economic and social development of countries concerning productions, investments, businesses, innovations and the creation of jobs. (Behun, Gavurova, Tkacova, Kotaskova, 2018; Herman, 2016). The manufacturing industry is of vital importance to the economic cycle (Kurniati, Yanfitri, 2010).

The advantages or disadvantages brought by the geographical features of the place significantly affect every industry. Undoubtedly, the favourable elements of the natural, social and economic environment ensure the development of the industry. The problems that emerge in these environments also cause adverse effects on industry and other economic sectors. The novel coronavirus, first emerged in late-December 2019 in Wuhan city in China, has been a severe factor adversely affecting industrial activities, particularly the manufacturing industry, for the last two years, as a biological disaster.

This study's purpose is to reveal the impact of the COVID-19 pandemic on the manufacturing industry in Şanlıurfa regarding investments and jobs created. This study focused on the number of investment certificates, the amount of investment and the number of jobs created in the manufacturing industry to disclose how the pandemic affected changes in the parameters, the assets and entrepreneurs in the manufacturing industry. Şanlıurfa is a newly industrialising province, and the characteristic of its manufacturing industry is agro-based. Şanlıurfa, besides, takes part in the most advantageous Priority Development Area (PDA) of Turkey. This study's findings will contribute to understanding how and how much the areas with the same characteristics are affected by the pandemic or similar diseases in order to take sufficient precautions.

## METHODOLOGY AND DATA

In this study, industry statistics at the level of Turkey and Şanlıurfa were used. To reveal the situation of the manufacturing industry in Turkey and Şanlıurfa, data on the energy and mining sectors, which are among the most significant sectors of the industry, were obtained. All the data used in this study was acquired from the Republic of Turkey Ministry of Industry and Technology as a primary source. To disclose the changes arisen before and during the pandemic, data on the number of investment certificates, the investment

value and the number of jobs created in the manufacturing, energy and mining industry between the years 2015 and 2021 were evaluated.

Industry statistics obtained from the Ministry of Industry and Technology were analysed using qualitative and quantitative methods, within the scope of geography's principles of connection and causality. The findings of the analyses were correlated with covid measures taken by the Turkish government, the investment incentives program in Turkey. Additionally, these data were associated with the dynamics of the manufacturing industry in Şanlıurfa to display the causes of decreases or increases in quantities. The subject and data of the research were evaluated in a general to specific manner. Further, researches and data by international organisations were obtained and evaluated in order to reveal the general situation of the world's and Turkey's economic activities, particularly industry during the pandemic period.

### CORONAVIRUS MEASURES TAKEN IN TURKEY TO MAINTAIN ECONOMIC ACTIVITIES

Underdeveloped, developing, and developed countries have different economic dynamics. Even economies in the same category in terms of their level of development may have different dynamics. The success of economic policies depends on their compliance with economic dynamics. Policies that are successful in one country may not produce the same results in another (Ustaoglu, 2020). Accordingly, it has been of vital importance to implement appropriate measures to the social and economic dynamics of the country, particularly in the conditions of the COVID-19 pandemic.

The first COVID-19 case in Turkey was declared by the Minister of Health on March 11, 2020, and as of November 6, 2021, the cumulative confirmed cases of COVID-19 are 8,150,708, and the cumulative death toll is 71,526 (WHO, 2021). Right after the first wave of pandemic, many measures were taken by the Turkish government such as a curfew, lockdown, domestic and international travel restrictions and closure of border crossings to prevent the spread of the virus and protect public health. With the rapid spread of the novel coronavirus in Turkey, urgent actions were taken rapidly by the government to keep economic activities alive, apart from protecting social health. Therefore, crucial short-term and long-term economic support programs were put into effect (EDAM, 2021). The government declared a recovery package to help businesses to get over the economic problems caused by the pandemic crisis, including debt suspension, tax deductions. There is no doubt that economic activities in Turkey have been hit at the beginning by the restrictions imposed, as in other countries. The efficient measures timely implemented by the Turkish government prevented the country from sufferings in terms of public health and economy (Bayar, Günçavdı, Levent, 2020; Presidency Of Strategy And Budget, 2021; Tunalı, 2020).

The Turkish government took some key measures to mitigate the effect of the pandemic and maintain economic activities. Within the frame of the precautions VAT, WHT, social security payments of more than 2 million taxpayers and income tax returns and payments of 1.9 million citizens were postponed by the government. Moreover, TRY 1000 cash support was provided to 5.5 million families, with a total state contribution of around TRY 5.5 billion. More than TRY 6 billion, comprising cash payments (TRY 441 million), unemployment fund (TRY 730 million) and short-time working allowance payment (TRY 4.8 billion) was provided to 4.5 million citizens. Meanwhile, employees were one of the

major subjects of the economic relief program. TRY 7 billion minimum wage support was provided to employees earning minimum wage. In this process, not only were individuals financially supported but also companies. For instance, banks announced low-interest loans and postponed loan repayments. Besides, companies were supported with an additional loan of TRY 450 billion. Accounts receivable insurance coverage of companies was raised to TRY 125 million to protect companies. The economic relief program covered the agriculture and livestock sector besides industry. A grant of up to TRY 1.9 billion was allocated to seed, plant and traditional livestock production, and up to TRY 5.2 billion was granted to renewable energy firms (EDAM, 2020).

During the lockdown, the government placed a great emphasis on the continuity of the activities in the manufacturing and service sectors. The government made crucial decisions to protect economic activities, workers and employers. In particular, employers and employees in agriculture, industry, construction, transportation in supply chain and service sectors meeting daily needs were exempted from the lockdown and they maintained their job. Another critical decision was the lay-off ban on employers. The prohibition of dismissal first came into force on April 17, 2020, with law number 7244 on Reduction the Economic and Social Effect of New Coronavirus (COVID-19) and amendment of Certain Laws (The Official Gazette, 2020). With the Amendment Law, dismissal of all labour contracts, whether covered by the Turkish Labor Law or not, was banned for three months. Following the expiry of the first period, the termination prohibition period was extended two times by presidential decree. Thus, the dismissal of the employees was prevented, the production and support chain was kept alive, thanks to policies implemented.

## INVESTMENT INCENTIVES PROVIDED TO ŞANLIURFA

Inequality between regions emerges as a problem as it creates differences in the social and economic welfare of the people living in these regions. In order to overcome this problem, priority development areas (PDA's) have been declared by governments. The main purpose of establishing priority regions for development is to develop these regions economically, socially and culturally and thus to gradually reduce the development differences between these regions and other regions. In order for this policy to achieve its purpose, objectives such as eliminating interregional barriers, creating employment, using advanced technologies with high added value and encouraging, directing and supporting investments have been determined (Sarı, Güven, 2007). As in all countries of the world, there are undeveloped or underdeveloped regions in Turkey. Thus, particularly the provinces in the Eastern and Southeastern Anatolian Regions were determined "Priority Development Areas" in terms of the socio-economic development level of the country. The priority provinces for development were first recognised in 1963, involving 22 provinces in the Eastern and Southeastern Anatolia Regions (Düzakın, Bulğurcu, 2010). Priority provinces in development were divided into two groups as first degree and second degree PDAs by the decision of the Turkish Council of Ministers' in 1981 (DPT, 2000). With the Council of Ministers' Decision on State Aids in Investments, the provinces were grouped into six incentive categories (The Official Gazette 2012). These groups are ranked from 1 to 6, from the advantageous regions to the most disadvantageous regions (Figure 1).

Figure 1. Distribution of provinces in Turkey by Investment Incentive Regions.



Source: Created by the author based on data of Republic of Turkey Ministry of Industry and Technology, Investment Incentives System. <https://www.sanayi.gov.tr/destek-ve-tesvikler/yatirim-tesvik-sistemleri/md0103011615>

Investment incentives play a key role in ensuring social and economic development in priority development areas. Incentives play an undeniable role in encouraging investors to invest in priority investment areas by increasing their attractiveness. Incentives such as customs duty exemption, tax deduction, social security premium support, income tax withholding allowance, social security premium support, interest support, land allocation, VAT refund are among the main incentives provided by the Ministry of Industry and Technology. These incentives vary according to the development level of the regions.

There are six groups of incentive support areas covering 81 provinces in Turkey. These areas were determined according to their social and economic development levels. While more attractive incentives are provided to undeveloped or underdeveloped areas, fewer incentives are provided to relatively developed provinces. In other words, incentives supplied to developed areas decrease in the variety, amount, rate and duration, while they increase in undeveloped or underdeveloped areas. Therefore, while socially and economically advantageous regions have become disadvantageous in terms of incentives, socially and economically disadvantaged areas have also become advantageous. Şanlıurfa is in the 6th incentive region. This group contains 15 provinces in southeastern and eastern Turkey and two districts of Çanakkale, located in northwestern Turkey. The remarkable characteristic of the 6th incentive region is that it is socially and economically underdeveloped and benefits the most from incentives (Figure 1). Within the scope of the 6th incentive zone, considerable incentives are provided to Şanlıurfa for a wide range of investments. The prominent investment sectors for which incentives are provided are integrated agriculture and livestock, manufacturing industry, renewable energy, aquaculture, aircraft and engine maintenance and repair, tourism, cold storage services, education services, student dormitories, hospitals and nursing homes, waste recycling or disposal facilities (Table 1, 2).

Table 1. Incentives provided according to regions (PDAs)

Incentives			Incentive Regions					
			1	2	3	4	5	6
VAT Exception			✓	✓	✓	✓	✓	✓
Customs Tax Exemption			✓	✓	✓	✓	✓	✓
Tax Relief	Contribution Rate on Investment (%)	OIZ and Non IZ*	15	20	25	30	40	50
		OIZ and IZ	20	25	30	40	50	55
Insurance Premium Employer Share (Years)	OIZ and IZ		2	3	5	6	7	10
	OIZ and non IZ		3	5	6	7	10	12
Land Allocation			✓	✓	✓	✓	✓	✓
Interest or Dividend Support (Point)	Domestic Loan		-	-	3	4	5	7
	Foreign Currency / Foreign Currency Indexed Loan				1	1	2	2
Insurance Premium Employee Share (Year)			-	-	-	-	-	10
Income Tax Withholding Support (Year)			-	-	-	-	-	10

\*IZ: Industrial Zone for Manufacturing

Source: Created by the author based on Republic of Turkey Ministry of Industry and Technology, Investment Incentives System. <https://www.sanayi.gov.tr/destek-ve-tesvikler/yatirim-tesvik-sistemleri/md0103011615>

The minimum fixed investment value to benefit from incentives in Şanlıurfa is 500,000 TL. All investment goods within the scope of the incentive certificate above the minimum fixed investment value are exempted from the Customs Tax that must be paid in accordance with the Import Regime Decision. Purchases of domestic or imported machinery and equipment within the scope of the incentive certificate are exempt from VAT which is 18% in Turkey. Land allocation for large-scale investments, strategic investments and regional investments is provided according to the procedures and principles determined by the Ministry of Finance (The Official Gazette, 2001). Significant tax incentives are also provided for investments in Şanlıurfa. According to the law, the rate of income or corporate tax relief is 50% of the fixed investment value in investments outside the OIZ and 55% in investments within the OIZ (The Official Gazette, 2006). Within the scope of this law, the investment contribution rate is 50% and the tax relief rate is 90% for investments in Şanlıurfa, and this rate is 40 points higher than the tax relief incentive for region 1. The fact that the insurance premium employer’s and employee’s share and the income tax withholding are covered by the state provides significant advantages for investments in labour-intensive sectors in the region 6 (Table 2).

Exclusive to region 6 only, the Insurance Premium Employee Share (14%) corresponding to the minimum wage is covered by the Republic of Turkey Ministry of Treasury and Finance for ten years. Besides, there is opportunity to benefit from the Insurance Premium Employer in which share incentives are provided based on the number of registered employees for ten years (12 years if the investment is in the OIZ). Although there is an upper limit of support in other incentive regions, there is no upper limit for investments in region 6 in this regard. Another incentive provided is the reduction of income taxes. Income tax withholding, calculated on the employee wages, corresponding to the minimum wage, is not paid for ten years. Furthermore, income taxpayers can benefit from ITW (Income Tax Withholding) reduction for the employment of 100 individuals (Table 2).

Table 2. Investmen incentives provided in region 6.

Incentives		Non OIZ*	OIZ
Tax Relief	Contribution Rate on Investment	50%	50%
	Corporate/Income Tax Discount Rate	90%	90%
Insurance Premium Employer Share	Duration (Year)	10	10
	Ratio to Fixed Investment Amount	35%	35%
Interest support	TRY (Points) / Upper Limit (TRY)	7/900,00	7/900,000
	Currency (Points) / Upper Limit (TRY)	2/900,000	2/900,000
Land Allocation	All Investments to Benefit from Regional Supports		
VAT Exception	Investments with Incentive Certificates in All Sectors		
Customs Tax Exemption	Investments with Incentive Certificates in All Sectors		
Minimum Fixed Investment Amount	500,000 TL		

\*OIZ: Organized Industrial Zone

Source: Created by thr author based on Republic of Turkey Ministry of Industry and Technology, Investmen Incentives System. <https://www.sanayi.gov.tr/destek-ve-tesvikler/yatirim-tesvik-sistemleri/md0103011615>

As in other provinces in region 6, in Şanlıurfa, investors can benefit from the privilege of taking bank loans up to 70% of the fixed investment value. Seven points of interest rate on Turkish lira loans and two points of interest rate on foreign currency loans or foreign currency indexed loans are covered from state budget resources. The maximum amount of support is TRY 1.8 million (Investment Office of Presidency of Republic of Turkey, 2021).

## AN OVERVIEW OF ALL ECONOMIC SECTORS IN TURKEY IN THE CONTEXT OF INVESTMENT AND EMPLOYMENT DURING THE PANDEMIC

Following the global financial crisis in 2008–2009, the growth rate in Turkey’s economic growth rate remained at 3.2% in 2016 due to the worldwide recession, geopolitical and political tensions, instability and wars in the Middle East. Therefore a series of measures was taken and put into practice in 2017 to accelerate growth and stimulate economic activities. With the Medium-Term Plan for the period 2017–2019 drawn by the Republic of Turkey Ministry of Treasury and Finance, governmental investments were directed to economic sectors that could contribute to growth, enhancing the development potentials of regions, increasing employment and the welfare of the country. Moreover, infrastructure support was provided to the productive activities of the private sectors. Renovation, maintenance-repair and rehabilitation expenditures and investments within the scope of the action plans of large scale and costly regional social-economic development programmes such as the Southeastern Anatolia Project, Eastern Anatolia Project, Konya Plain Project, Eastern Black Sea Project were prioritized, regarding Mid-Term Plan. With the implementation of “Attraction Centers of Eastern and Southeastern Anatolia Regions Program, Investment and Support Initiative” investment, production and employment in these regions soared. Tax reductions, incentives for business and production, and loans provided were constructive in the strong growth in the economy by promoting



production and domestic demand. Therefore, an accelerated growth process started again in the last quarter of 2016. This process continued uninterrupted throughout 2017. At the end of 2017, the growth rate attained 7.4%, and Turkey became the country with the fastest-growing economy among the G20 countries. In 2017, the added value of the agricultural sector increased by 4.7%, the industrial sector increased by 9.2%, and the construction sector increased by 8.9%. The added value of the services sector consisting of trade, transportation, accommodation and food service activities, boosted by 10.7% and the value-added of other service activities increased by 5.5%. (Republic of Turkey Ministry of Finance, 2017; TOBB, 2017).

Between 2015 and 2021, 44,473 investment certificates were issued in all economic sectors in Turkey. From 2015 to 2021, excluding 2017, there has been a general rise in the number of investment certificates issued. In 2020, when the pandemic started, the number of investment certificates issued for all sectors was 10,465 corresponding to 23.3% of the number of certificates issued in the last 6.5 years. The number of investment certificates issued in the first half of 2021 is 6,137 and covers a share of 13.8% in the total of 6.5 years. Therefore, the number of investment certificates issued in the last 1.5 year covering the pandemic period is 16,602, corresponding to 37.33% of the total number of certificates issued in the last 6.5 years (Table 3). Considering the distribution of certificates issued for investments, according to economic sectors, it is seen that industrial investments have a noteworthy share. Of the 44,473 documents issued as of 2015, 1,018 (2.3%) were issued in mining, 2,579 (5.8%) in agriculture, 6,895 (15.5%) in energy, 8,741 (19.7%) services and 25,240 (56.8%) in the manufacturing sectors. Excluding the agriculture and services sector, the number of certificates issued in the industrial sector constituted 74.6% (33,153) of the total number of the certificates.

*Table 3.* The number of investment certificates, jobs created, and amount of fixed investment value in Turkey (2015 – June 2021)

Years	Number of the Investment Certificates	The Fixed Investment Value (TRY)	Number of the Jobs Created	The Fixed Investment Value per Jobs Created
2015	4,257	111,730,059,944	148,276	753,527
2016	4,968	117,215,884,650	154,347	759,430
2017	7,249	200,486,059,445	226,209	886,286
2018	5,758	186,334,703,202	247,889	751,686
2019	5,639	175,181,316,792	204,161	858,054
2020	10,465	258,914,848,563	299,593	864,221
2021 (June)	6,137	110,375,163,130	154,597	713,957
Total	44,473	1,160,238,035,726	1,435,072	5,587,161

Source: Created by the author based on Republic of Turkey Ministry of Industry and Technology, Investment Statistics, 2021. <https://www.sanayi.gov.tr/istatistikler/yatirim-istatistikleri/mi0503001615>

The fixed investment value in all economic sectors, realised between 2015 and June 2021 in Turkey, is TRY 1.16 tn (1,160,238,035,726). Of the total fixed investment value of TRY 369.3 bln (369,290,011,693) in the pandemic period, TRY 259 bln (258,914,848,563) was in 2020 and TRY 110.4 bln (110,375,163,130) was in the first six months of 2021. This amount corresponds to 31.83% of the total fixed investment value realised after 2015 (Table 3). In the analysed period, of the total fixed investment amount of TRY 1.16 tn, TRY 904,010,608,237 (77.92%) was domestic and TRY 256,227,424,492 (22.08%) was foreign capital. Of the TRY 1.16 tn fixed investment value realised since 2015, TRY 17,598,534,076 (1.52%) invested in agriculture, TRY 36,051,855,239 (3.11%) in mining, TRY 277,776,737,849 (23.94%) in services, TRY 278,440,678,897 (24.00%) in energy and TRY 550,370,229,667 (47.44%) in the manufacturing industry. The fixed investment value in the industry sector, consisting of mining, energy and manufacturing, is TRY 864,862,763,803, and it is equal to 74.54% of the sum of all economic sectors.

Regarding the value of the fixed investments realised, in Turkey, the total number of jobs created between 2015 and the first half of 2021 is 1,435,072. The increase in the number of employments in 2017 and 2018 continued during the pandemic period. The number of jobs created in 2020 is 299,593 and 154,597 in the first half of 2021. Thus, the total number of jobs created during the pandemic was 454,190, corresponding to 31.65% of the total jobs created since 2015. As the value of fixed investments realised as 1.16 tn between 2015 and the first half of 2021 and 1,435,072 jobs created during the pandemic period, the fixed investment value per employment is TRY 5,587,161 (Table 3). The industry has a significant share in the number of jobs created between 2015 and June 2021. Of the 1,435,072 jobs created in this period, 31,379 (2.19%) were created in energy, 34,001 (2.37%) in mining, 37,206 (2.59%) in agriculture, 451,210 (31.44%) in services and 881,276 (61.41%) in the manufacturing sectors. According to these numbers, the number of jobs created in the energy sector, which has a significant share in the number of investment certificates and fixed investment value, remained relatively low. The industry has the largest share, with 946,656 (65.97%) jobs created, as its share in the number of investment certificates and the fixed investment value.

## INVESTMENT AND EMPLOYMENT SITUATION IN ŞANLIURFA MANUFACTURING INDUSTRY DURING THE PANDEMIC PERIOD

The situation of the manufacturing industry in Şanlıurfa displays a similar position with the industrial activities in Turkey, in the period studied between 2015 and June 2021, including the COVID-19 pandemic period. As the manufacturing industry has an indispensable place in the number of investment certificates, fixed investment value and the number of jobs created throughout Turkey, the manufacturing industry has been at the forefront in Şanlıurfa.

The number of investment certificates issued for Şanlıurfa between 2015 and the first six months of 2021 is 1,075. This number is equivalent to 2.42% of the number of investment certificates issued in Turkey in the same period. Following the acceleration in 2017, the number of issued investment certificates drastically declined till 2019. In 2020 with the onset of the pandemic, it boosted again. In 2020, 197 investment certificates were issued and 104 in the first six months of 2021. Thus, 301 certificates released in just 1.5 years of the pandemic equals 28% of the total investment certificates issued since 2015 (Table 4). Of the 1,075 investment certificates issued, 10 (0.93%) were released

in mining, 39 (3.63%) in agriculture, 211 (19.63%) in services, 240 (22.33%) in energy and 575 (53.49%) in the manufacturing industry.

The fixed investment value realised in Şanlıurfa, in the period from 2015 to June 2021, was TRY 8.7 bln (8,709,856,263 ). This amount corresponds to 0.75% of the fixed investment value realised in Turkey in the same period. TRY 8,115,040,348 (93.17%) of the total fixed investment in Şanlıurfa between 2015 and June 2021 originated from domestic capital, TRY 594,815,915 (6.83%) foreign capital. Following the swift rise in 2017 and the decrease in the fixed investment value in the following years, it started to increase rapidly again in 2020, the first year of the pandemic. With TRY 2.15 bln (2,152,128,389) in 2020 and TRY 1.41 bln (1,410,785,979) in the first half of 2021, TRY 3.6 bln (3,562,914,368) fixed investments value in total were accomplished within the 1.5 years of pandemic period. This value matches 40.9% of the total fixed investment value realised since 2015 (Table 4). Of the TRY 8.7 bln (8,709,856,263) fixed investment realised in Şanlıurfa since 2015, TRY 74,601,187 (0.86%) were invested in mining, TRY 238,583,295 (2.74%) in agriculture, TRY 1,656,541,994 (19.02%) in energy, TRY 2,221,144,811 (25.5%) in services and TRY 4,518,984,976 (51.88%) in the manufacturing industry. The manufacturing industry has the most important share in the fixed investment value realised in Şanlıurfa.

*Table 4.* The number of investment certificates, jobs created, and amount of fixed investment value in Şanlıurfa (2015 – June 2021)

Years	Number of the Investment Certificates	The Fixed Investment Value (TRY)	Number of the Jobs Created	Fixed Investment Value per Job Created
2015	94	439,741,215	4,846	90,743
2016	92	456,567,910	4,347	105,030
2017	247	2,338,496,616	8,682	269,349
2018	205	1,034,243,942	9,129	113,292
2019	136	877,892,212	6,116	143,540
2020	197	2,152,128,389	8,585	250,684
2021 (June)	104	1,410,785,979	2,831	498,334
Total	1,075	8,709,856,263	44,536	1,470,972

Source: Created by the author based on the data of Republic of Turkey Ministry of Industry and Technology, Investment Statistics, 2021. <https://www.sanayi.gov.tr/istatistikler/yatirim-istatistikleri/mi0503001615>

In Şanlıurfa, there was a significant increase in the number of jobs created during the pandemic compared to the previous year. The number of jobs created between 2015 and June 2021 is 44.536, and it meets 3.10% of the total employment created in Turkey in the same period. After the sharp rise in 2017 and 2018, the number of jobs created in 2020 is 8,585 and 2,831 in the first half of 2021. Thus, the number of jobs created during the pandemic period is 11,416. This amount is equivalent to 25.63% of the 44,536 employments created since 2015. Of the total employment, respectively, 226 (0.51%) were created in mining, 464 (1.04%) in energy, 699 (1.57%) in agriculture, 11,354 (25.49%) in services and 31,793 (71.39%) in the manufacturing industry. Most of the jobs created were in the manufacturing industry, as with the number of investment certificates and the fixed investment value. Considering that the fixed investment value in Şanlıurfa is TRY

8.7 bln (8,709,856,263) and the number of jobs created is 44,536, the fixed investment value per employment is equal to TRY 1,470,972 (Table 4).

The most important industrial sector in Şanlıurfa is the manufacturing industry. Especially in the fertile agricultural areas of the province, suitable climatic and topographic conditions have caused the diversification of agriculture production and the high amount of production. This potential of the Şanlıurfa has led to speedy development, particularly in the agro-based manufacturing industry. Most of the raw materials used by the agro-based industry in Şanlıurfa are supplied within the provincial boundaries. Therefore, it has been minimally affected by disruptions in the support chain. Considering the data on the pandemic period and previous years, the effect of agricultural production becomes clearer. In addition, the importance of the manufacturing industry and its position in the pandemic will come out more clearly when compared with the energy and mining industries, which are the most significant other industrial sectors of the province.

While the number of investment certificates issued for Şanlıurfa in the manufacturing industry was 65 in 2015, this number rose to 91 in 2018 and lowered to 87 the following year. The number of investment certificates issued in 2020, the year the pandemic started, instantly increased to 125. In other words, in 2020, when the pandemic began, the number of investment certificates increased by 43.68% compared to the previous year. The number of investment certificates in the energy sector slumped by 28.57% in 2020. In the first six months of 2021, the number of investment certificates issued is 77. Thus, the total number of investment certificates released since 2015 has reached 575. This number covers 2.28% of the number of certificates issued in the manufacturing industry in Turkey between 2015 and June 2021. The total number of investment certificates issued in 2020 and 2021 was 202. Considering that the total number of investment certificates issued in the manufacturing industry between 2015 and June 2021 is 575, the number of investment certificates issued during the pandemic period in Şanlıurfa corresponds to 35.13% of the total in the last 6.5 years. In addition, the number of investment certificates issued in Şanlıurfa during the pandemic period is equal to 1.71% of the number of certificates released in Turkey in the same period (Table 5). During the pandemic period, the number of investment certificates issued in the energy sector is equal to 5.42% of the post-2015 total, while the number of certificates issued in the mining sector is equal to 50%.

*Table 5.* The number of investment certificates, jobs created, and amount of fixed investment value in manufacturing industry in Şanlıurfa (2015 – June 2021)

	Number of the Certificates	The Fixed Investment Value (TRY)	Number of the Jobs Created	Fixed Investment Value per Job Created
2015	65	210,403,364	3,824	55,021
2016	53	107,975,074	2,228	48,462
2017	77	1,338,376,434	5,455	245,348
2018	91	387,996,807	6,490	59,783
2019	87	582,090,679	5,128	113,512
2020	125	1,210,305,912	6,275	192,877
2021(June)	77	681,836,705	2,393	284,929
Total	575	4,518,984,975	31,793	999,932

Source: Created by thr author based on Republic of Turkey Ministry of Industry and Technology, Investment Statistics, 2021. <https://www.sanayi.gov.tr/istatistikler/yatirim-istatistikleri/mi0503001615>

The fixed investment amount realised in the manufacturing industry in Şanlıurfa was TRY 210.4 mln (210,403,364) in 2015, this amount increased to TRY 1.34 bln (1,338,376,434) in 2017 and decreased to TRY 582,090,679 in 2019. In 2020, the fixed investment value in the manufacturing industry rose again and attained TRY 1.21 bln (1,210,305,912). Therefore, the fixed investment amount in the first year of the pandemic grew by 107.92% compared to the previous year. In the same year, the fixed investment value in the energy sector soared by 137.61%. In the first half of 2021, the fixed investment value in the manufacturing industry in Şanlıurfa was TRY 681,836,705. The total fixed investment value received between 2015 and June 2021 was TRY 4.52 bln (4,518,984,975), equal to 0.82% of the fixed investment value received in the manufacturing industry in Turkey in the same period. In 2020 and the first six months of 2021, the total fixed investment value in Şanlıurfa was TRY 1.9 bln (1,892,142,617), which corresponds to 41.87% of the fixed investment value realised in the last 6.5 years. In addition, this amount covers 0.79% of the fixed investment value actualised in the manufacturing industry in Turkey in the same period (Table 5). During the pandemic period, on the other hand, the fixed investment value created in the energy sector in Şanlıurfa in 2020 and the first six months of 2021 is equal to 15.12% of the post-2015 total. In addition, the fixed investment value created in the mining sector in Şanlıurfa during the pandemic matches 71.77% of the total since 2015.

Undoubtedly, the advances in terms of the number of investment certificates and fixed investment value in the manufacturing industry resulted in a rise in the number of jobs created in Şanlıurfa. While the number of jobs created in Şanlıurfa was 3,824 in 2015, this number rose to 6,490 in 2018 and dropped to 5,128 in 2019. Due to the investments received in 2020, the number of jobs created raised to 6,275. Thus, the number of jobs created grew by 22.37% in the first year of the pandemic compared to the previous year. In the same year, the number of jobs created in the energy sector increased by 174.07%. As of June 2021, the number of jobs created in the manufacturing industry in Şanlıurfa was 2,393. So, the number of jobs created in the 1.5-year pandemic reached 8,668, and it meets 27.26% of the number of jobs created since 2015. Between 2015 and June 2021, the number of jobs created in Şanlıurfa in the manufacturing industry was 31,793. This number covers 3.61% of the jobs created in Turkey in the same period. In addition, the number of employment created in Şanlıurfa during the pandemic meets 2.47% of the number realised in Turkey in the same period (Table 5). On the other hand, the number of jobs created in the energy sector in Şanlıurfa during the pandemic was 18.10% of the post-2015 total. Besides, the number of jobs created in the mining sector in Şanlıurfa during the pandemic is 65.93% of the post-2015 total.

#### **DISTRIBUTION OF INVESTMENT VALUE AND NUMBER OF EMPLOYMENT CREATED BY MANUFACTURING INDUSTRY DIVISIONS IN ŞANLIURFA DURING THE PANDEMIC PERIOD**

The distribution of the number of investment certificates, fixed investment value and the number of jobs created in the manufacturing industry in Şanlıurfa by divisions highlights the determining role of the geographical potential. During the pandemic, particularly disruptions in the support chain throughout the world were minimal in Şanlıurfa due to the supply of raw materials within the provincial borders and proximity to raw materials.

The number of investment certificates issued between 2015 and June 2021 in the manufacturing industry is 575. The top five divisions with the most certificates issued are respectively, in the manufacture of wearing apparel 108 (18.75%), the manufacture of food products 84 (14.58%), the manufacture of rubber and plastics products 80 (13.89%), the manufacture of other non-metallic mineral products 49 (8.51%) and the manufacture of textiles 47 (8.16%). With 368 documents, the share of these divisions covers 63.89% of the total number of documents issued in the manufacturing industry. The distribution of the number of certificates issued to the manufacturing industry during the pandemic was 29 for apparel, 35 for food products, 26 for rubber and plastic products, 18 for other non-metallic mineral products, and 19 for textile manufacturing. The total number of certificates issued in these top five divisions during the pandemic was 127, equal to 22.05% of the total between 2015 and June 2021. Within the total number of certificates issued between 2015 and June 2021, 26.85% of the certificates in the manufacturing of apparel, 41.67% of food products, 32.50% of rubber and plastic products, 37.73% of other non-metallic mineral products, 40.43% of textiles issued just in the 1.5-year pandemic period (Table 6).

The total fixed investment value realised in the manufacturing industry in Şanlıurfa between 2015 and June 2021 is TRY 4.52 bln (4,518,984,975). The top five divisions with the highest fixed investment value in the manufacturing industry are the manufacture of textiles TRY 1,358,659,922 (30.10%), rubber and plastics products TRY 696,652,221 (15.43 chemicals and chemical products TRY 542,853,399 (12.02%), wearing apparel is TRY 434,253,258 (9.62%), food products TRY 357,855,012 (7.93%), respectively. These top five divisions have 75,10% of the total investment value, with a total investment value worth TRY 5,4 bln (5,390,273,812). In 2020 and the first half of 2021, fixed investment received was TRY 762,153,522 in the manufacture of textile products, TRY 218,496,342 in the manufacture of plastic and rubber products, TRY 21,195,406 in the manufacture of chemicals and chemical products, TRY 110,707,216 in the manufacture of wearing apparel, TRY 229,047,252 in the manufacture of food products. Within the amount of fixed investment value realised between 2015 and June 2021, 56.10% of the investment in the manufacturing of textile products, 31.36% of plastic and rubber products, 3.90% of chemicals and chemical products, 25.49% of wearing apparel, 64.01% of food products were realised during the 1.5-year pandemic period. The total fixed investment amount realised in these five sections within 1.5 year of the pandemic is TRY 1.34 bln (1,341,599,738), equal to 29.72% of the amount realised between 2015 and the first half of 2021 (Table 6).

As an outcome of the enhancement in the number of investment certificates and fixed investment value in the manufacturing industry, the number of jobs created has risen. The number of jobs created between 2015 and June 2021 was 31,793. In this period, the top five divisions with the most employment were the manufacture of wearing apparel - 16,831 (52.94%), textile products - 3,016 (9.49%), rubber and plastic and products - 2,469 (7.77%), food products - 2,032 (6.39%), furniture - 1,618 (5.09%). The total number of jobs created in the top five divisions regarding employment was 25,966 and covers 81.67% of the entire jobs. The number of jobs created in the manufacturing industry between 2020 and the first half of 2021 was 6,506. The number of jobs created in the manufacture of wearing apparel was 3,230, textiles 926, rubber and plastic products 849, food products 1,067 and furniture 434, respectively. This value equalises 20.46% of the total jobs created between 2015 and the first half of 2021.

Table 6. The number of investment certificates, jobs created, and amount of fixed investment value according to manufacturing industry divisions (2015-June 2021).

ISIC Code	Manufacturing Industry Division	Number of The Investmen Certificates				The Fixed Investment Value (TRY Mln)				Number Of The Jobs Created			
		2015-2019	2020	2021	Total	2015-2019	2020	2021	Total	2015-2019	2020	2021	Total
13	Manufacture of textiles	28	10	9	28	596.5	541.5	220.6	1358.66	2,090	691	235	3,016
10	Manufacture of food products	49	22	13	49	128.8	198.8	30.3	357.85	965	691	376	2,032
31	Manufacture of furniture	26	6	5	26	83.3	26.2	15.8	109.5	1,184	271	163	1,618
22	Manufacture of rubber and plastics products	54	12	14	54	478.2	86.8	131.7	565.0	1,620	354	495	2,469
20	Manufacture of chemicals and chemical products	7	1	5	7	521.7	21.2	0	542.9	233	172	0	405
14	Manucauring of wearing apparel	79	24	5	108	323.6	97.8	12.9	421.3	13,601	2,814	416	16,831

Source: Created by the author based on the data of Republic of Turkey Ministry of Industry and Technology, Investment Statistics, 2021. <https://www.sanayi.gov.tr/istatistikler/yatirim-istatistikleri/mi0503001615>

Within the number of the jobs created between 2015 and June 2021, 19.19% of the jobs in the manufacture of wearing apparel, 30.70% of textile products, 34.39% of rubber and plastic products, 52.51% food products, 26.82% furniture were created during the 1.5 pandemic period (Table 6).

Considering the number of investment certificates, the fixed investment value and the number of jobs created, it is indisputable that there were notable developments between 2020 and June 2021.

## CONCLUSION

The novel coronavirus pandemic arised in Wuhan city of China in 2019, deeply affected not only social life but also economic activities all across the world. All countries have taken strict measures in response to the rapidly diffusing coronavirus, such as lockdown, travel restriction, closing the borders, shortening of working hours and reducing the number of employees to mitigate the effect of COVID-19. COVID-19 measures brought along considerable disruptions in the raw materials-production-marketing chain. Problems arose because of the precautions in industrial activities, such as labour shortage, financial difficulties, disruption in the supply chain reduced production and adversely affected economic activities, particularly industry. Undoubtedly, the manufacturing industry, which is the engine of industrial activities, has been the industry sector most affected by the unfavourable conditions created by the pandemic. The number of investment certificates and the number of employment created and fixed investment amounts soared during the pandemic period in Turkey while the economic indicators across the world deteriorated. The developments accomplished in Turkey in the context of investment and employment also took place in Şanlıurfa.

Şanlıurfa is a newly industrialised province in the Southeastern Anatolia Region of Turkey. Industrial activities in the province are mostly based on agricultural production. The data of the pandemic period of the manufacturing industry in Şanlıurfa show that it was not adversely affected in terms of the amount of investment, the number of investment certificates and jobs created. On the contrary, it progressed rapidly compared to the previous years before the pandemic. There are three decisive reasons for the increase in the amount of investment and employment in Şanlıurfa during the pandemic period. The first is the effective measures taken by the Turkish government in a timely manner to keep the economic activities, especially industrial activities alive during the pandemic period. Economic measures such as postponing VAT, withholding tax, social security contributions and income tax payments, lowering loan rates of banks, providing additional loans to companies, additional cash salary support to employees, minimum wage support, ensured the continuity and vitality of industrial activities, especially the manufacturing industry. In addition, the exemption of workers in the transportation and production sectors from lockdowns and the prohibition of layoffs to prevent supply chain disruptions have played a prominent role in preserving the manufacturing industry. Secondly, Şanlıurfa is in the 6th incentive region, with the most incentives provided in Turkey. Incentives such as VAT, customs tax exemption, income or corporate tax reduction, contribution to insurance premium worker's/employee's share, land allocation, loans with low interest, contribution to a specific part of the interest payment played a significant role in increasing the investment value and employment in Şanlıurfa. Finally, Şanlıurfa has a high agricultural production potential, that is why the main characteristic



of the manufacturing industry in Şanlıurfa is agro-based. The raw materials needed by the manufacturing industry in Şanlıurfa can be supplied at a low cost, easily and adequately within the provincial boundaries. Therefore, no severe disruption occurred in the supply chain in the manufacturing industry during the pandemic period.

The sufficient measures taken by the Turkish government during the pandemic period, the incentives utilised, and the ease of supply of raw materials enabled the development of the manufacturing industry in Şanlıurfa in terms of investment and employment compared to pre-pandemic years. In Şanlıurfa, the number of investment certificates increased by 43.68%, the fixed investment value by 107.92%, and the number of jobs created by 22.37% in 2020, compared to the previous year. The manufacturing industry divisions with the highest increases in investment and employment are the manufacture of textiles, wearing apparel, food products, rubber and plastics products.

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