

## THE CONTRIBUTION OF THE PROCESSING INDUSTRY TO IMPROVING INDONESIA'S ECONOMY BEFORE AND AFTER THE PANDEMIC

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### ABSTRACT

The impact of the covid-19 pandemic has made the economy in Indonesia weakened. we can look at the high levels of unemployment and poverty at that time. The processing industry is one of the sectors that has an important role in driving the economy in Indonesia. This study analyzes the contribution of the processing industry sector in the post-pandemic economic recovery using the Input-Output table analysis method. The Data that the researchers used came from the Central Statistics Agency (BPS). Based on the results of the study, most of the processing industry subsectors have the ability to encourage production growth and improve economic recovery during a pandemic through seven subsectors that have consistently contributed to increasing labor absorption, improving weakening household consumption and weakening people's purchasing power due to the covid 19 pandemic in Indonesia. According to data from the Central Bureau of Statistics (BPS), the food and beverage industry subsector is the largest contributor by generating gross domestic product (GDP) of 1,057,001 27 billion in 2020. Followed by the other six sub-sectors of the processing industry which also contributed a lot to economic recovery. The processing industry is one of the industries that plays an important role in helping the economic recovery of the community in Indonesia after the pandemic.

**Keywords:** Economy, Manufacturing Industry, Covid-19

### INTRODUCTION

COVID-19 infection, according to WHO (2020) occurs when a person experiences acute respiratory distress such as fever, cough and shortness of breath. The incubation period of this virus is on average 5-6 days, but the incubation period can last up to 14 days from the moment the virus is in the

body. COVID-19 can cause death and more severe symptoms in sufferers if the patient has a history of other diseases such as pneumonia, acute respiratory syndrome, kidney failure, and other degenerative diseases. The pandemic has affected not only the health of the human body, but also economic life.

The Indonesian economy in 2020, experienced a contraction in economic growth of -2.07 percent (Central Statistics Agency, 2021). This is one of the impacts of the COVID-19 pandemic, the increase in unemployment and poor people caused by layoffs during the Covid-19 pandemic. The government's decision to impose large-scale social restrictions (PSBB) in several regions since April 2020 has had a significant impact on production, distribution and other operational activities. The PSBB policy to prevent the spread of the Covid-19 pandemic resulted in limited mobility and community activities so that domestic demand defeated the decline. The decreased income of the community due to the pandemic caused most business sectors to reduce their activities or close completely. Unemployment has also increased. which ultimately disrupts economic performance.

The government is trying to carry out various programs in the framework of economic recovery, one of which is in the industrial sector. The industrial sector is one of the sectors that has experienced the most decline in GDP during the pandemic. The industrial sector is one of the mainstay sectors of the national economy, one of which is the processing industry sector. This sector contributes to the provision of the largest business field in the workforce. However, the processing industry in 2020 experienced a decline in GDP worth -2.93% from the previous one in 2019, which was 2,276.67 trillion to 2,209.92 trillion in 2020. However, the processing industry experienced an increase in GDP of 3.39% to 2284.82 trillion in 2021 and again increased rapidly in 2022 by 4.89% to 2396.6 trillion. Judging from the distribution (GDP) of Indonesia's Gross Domestic Product, the processing industry sector in Indonesia in 2020 to 2022 has increased annually. Where this industry sector has a greater contribution than other sectors. This can be seen in the table of distribution of Indonesia's GDP by Constant ADH business field 2019, year 2020-2021 (billion Rupiah).

Table 1  
2010 Constant Price GDP (Billion Rupiah) and GDP Growth (Percent) by Business Field,  
2018-2021

Lapangan Usaha		2019	2020	2021
PDB Harga Konstan Tahun 2010 (Miliar Rupiah) dan Pertumbuhan PDB (persentase/%)				
A.	Pertanian kehutanan dan perikanan	1 354 399,1	1 378 331,4	1 403 710,0
		3,61	1,77	1,84
B.	Pertambangan dan Pengalihan	806 206,2	790 475,2	822 099,5
		1,22	-1,95	4
C.	Industri Pengolahan	2 276 667,8	2 209 920,3	2 284 821,7
		3,8	-2,93	3,39
D.	Pengadaan listrik dan gas	111 436,7	108 826,4	114 861,1
		4,04	-2,34	5,55
E.	Pengadaaan air, pengelolaan sampah, limbah dan daur ulang	9 004,9	9 449,3	9 919,2
		6,83	4,94	4,97
F.	Konstruksi	1 108 425,0	1 072 334,8	1 102 517, 7
		5,76	-3,26	2,81
G.	Perdagangan besar dan eceran, reparasi mobil dan sepeda motor	1 440 185,7	1 385 747,4	1 450 226,3
		4,6	-3,78	4,65

According to Table 1, it is seen that the processing industry sector which has the largest Gross Domestic Product (GDP) contribution to the economic recovery in Indonesia after the pandemic in 2021 is 2.284821, 7 billion. The post-pandemic economic recovery is thanks to the government's strategic efforts in order to increase the competitiveness of the industrial sector in order to revive national economic growth. the mainstay sectors of the processing industry are the food and beverage industry, chemicals, textiles and clothing, automotive, electronics, pharmaceuticals, and medical devices. These seven sectors contribute greatly to increasing employment as well as improving the weakening of household consumption and the weakening of people's purchasing power, due to the covid 19 pandemic in Indonesia.

## RESEARCH METHODS

This research uses descriptive analysis method with Input-Output table analysis device. This method was developed by Professor Wassily Leontif in

1930 (Miller & Blair, 2009). Input-Output tables can describe the transactions of goods and services between sectors in an economy. According to (Badan Pusat Statistik, 2021), the assumptions of the Input-Output table include: (1) uniformity (homogeneity), which means that each existing economic sector produces only one type of goods and services with a uniform input arrangement and no automatic substitution of inputs from different sector outputs; (2) proportionality, which is the relationship between the inputs and outputs of each sector following the; (3) Additivity means that the total effect of production activities in various sectors is the sum of the effects of the activities of each separate sector. With this assumption, the limitations of the Input-Output table include: because the input-output ratio remains constant throughout the analysis period, manufacturers cannot adjust changes in their inputs or change production processes (Badan Pusat Statistik, 2008).

The purpose of using the input-output table is to present an overview of the interrelationships and interrelations between units of activity (sectors) in the economy in Indonesia as a whole. The Data used in this study are secondary data from the Central Bureau of Statistics. The Data used include the Input-Output table of the distribution of Indonesian GDP by Constant ADH business fields 2019, 2020-2021 (billion Rupiah) and GDP by business fields based on current prices in 2019-2021.

## RESULTS AND DISCUSSION

Based on data from the Badan Pusat Statistik (BPS), the number of workers in the processing industry sector continues to increase. In August 2021, the number was recorded at 18.69 million people. The number of processing industry workers increased by 4.88% when compared to February 2021 which was 17.82 million people. The figure also grew by 6.92% compared to August 2020, which amounted to 17.48 million people. The manufacturing sector workforce has continued to increase since 2015. However, the Covid-19 pandemic that struck Indonesia in early 2020 has made the number of processing industry workers decrease significantly. The recovery occurred in line with the improvement of the Indonesian economy in the second quarter/2021. This happens because the government has gradually relaxed social restrictions. Meanwhile, the workforce of the processing industry sector contributes 14.27% to the total national workforce.

This percentage is the third largest after agriculture (28.33%) and large trade and retail (19.64%).

Table 2  
Gross Domestic Product By Field of Operation on the Basis of Current  
Prices (Billion Rp)

No.	INDUSTRI PENGOLAHAN	2019	2020	2021
1.	Industri Batubara dan Pengilangan Migas	336,673	307,606	320,009
2.	Industri Makanan dan Minuman	1,012,960	1,057,001 27	1,121,362
3.	Pengolahan Tembakau	140,967	135,935	135,146
4.	Industri Tekstil dan Pakaian Jadi	200,019	186,627 4	180,217 4
5.	Industri Kulit, Barang dari Kulit dan Alas Kaki	42,499	39,204	42,509
6.	Industri Kayu, Barang dari Kayu, Gabus dan Barang Anyaman dari Bambu, Rotan dan sejenisnya	80,32	78,689	76,689
7.	Industri Kertas dan Barang dari kertas, Percetakan dan Reproduksi Media Rekaman	109,892 1	110,562	113,202
8.	industri Kimia, Farmasi dan Obat Tradisional	265,925 2	296,71	339,183
9.	Industri Karet, Barang dari Karet dan Plastik	87,975	82,857 2	88,608
10.	Industri Barang Galian bukan logam	93,363	85,86	89,017
11.	Industri Logam Dasar	116,069	120,957	137,599
12.	Industri Barang dari Logam, Komputer, Barang Elektronik, Optik dan Peralatan Listrik	265,384	252,143	257,366
13.	Industri Mesin dan Perlengkapan	46,983	43,231	48,9
14.	Industri Alat Angkutan	258,287	208,886	251,893 6
15.	Industri Furnitur	39,239	38,653	42,173

16.	Industri Pengolahan Lainnya, Jasa Reparasi dan Pemasangan Mesin dan Peralatan	23,04	23,121	23,034
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In 2020, there were several sub-sectors that consistently contributed to and supported the growth rate of the processing industry. the main sectors of the processing industry are the food and beverage industry, textiles and clothing, automotive, electronics, pharmaceuticals, and medical devices. These seven sectors contribute greatly to increasing employment and improving the weakening of household consumption and the weakening of people's purchasing power, due to the covid 19 pandemic in Indonesia. The following are the seven sub-sectors of the processing industry that contribute the most to GDP and play a role in economic recovery during the pandemic and post-pandemic.

The food and beverage industry (mamin) is becoming a key sector by contributing significantly to the growth of the national economy. Even in the midst of the pressure of the impact of the Covid-19 pandemic, the performance of the food and beverage industry remains brilliant because it is a crucial sector that maintains its productivity. The GDP of the food and beverage industry grew positively by 3.49 percent in the third quarter of 2021. This is in line with national economic growth which again grew positively to touch 3.51 percent. In addition, the role of the food and beverage industry in accelerating the National Economic Recovery is also shown by the increasing contribution of the mamin industry GDP to the GDP of the non-oil and gas processing industry which reached 38.91 percent in the same period. The food and beverage industry is one of seven sub-sectors of the non-oil and gas processing industry that continues to grow in 2021. The GDP growth of the food and beverage industry is in line with the growth of public consumption expenditure for food and beverage needs (other than restaurants) by 1.44% last year compared to the previous year.

The chemical, pharmaceutical, and traditional medicine industries have increased during the Covid-19 pandemic. The demand for medicines, especially vaccines and traditional medicines to maintain body health increased during the pandemic, making this industry actually reach its highest level in the last 9 years. Based on data from the Central Statistics Agency

(BPS), the domestic product (GDP) of the chemical, pharmaceutical and traditional medicine industry sub-sector on the basis of current prices (ADHB) reached Rp339.18 trillion in 2021. The value of the portion reached 11.51% of the GDP of the national non-oil and gas processing industry amounting to Rp2.95 quadrillion. If measured by the amount of GDP on the basis of constant prices (ADHK) in 2010, the chemical, pharmaceutical and traditional medicine industries rose 9.61% to Rp233.87 trillion last year compared to the previous year.

The performance of the chemical, pharmaceutical and traditional medicine sectors was better than the previous year which only grew 9.3%, and above the growth of the national Gross Domestic Product (GDP) which was only 3.69%. The sector's growth is the highest since 2013. This improvement is in line with public consumption expenditure for health and education which also grew 1.7% last year. The automotive industry national car sales continued to increase sales in 2021. As economic conditions begin to recover, consumers take advantage of the expiration of the 100 percent sales tax on luxury goods (PPnBM) discount period at the end of August 2021. In July 2021, domestic car sales increased by 340 percent on an annual basis (year on year, yoy) to 66,639 units compared to July 2020 which only amounted to 15,145 units. Car sales in August 2021 also increased, this is due to the PPnBM discount which applies only 25 percent from September-December 2021.

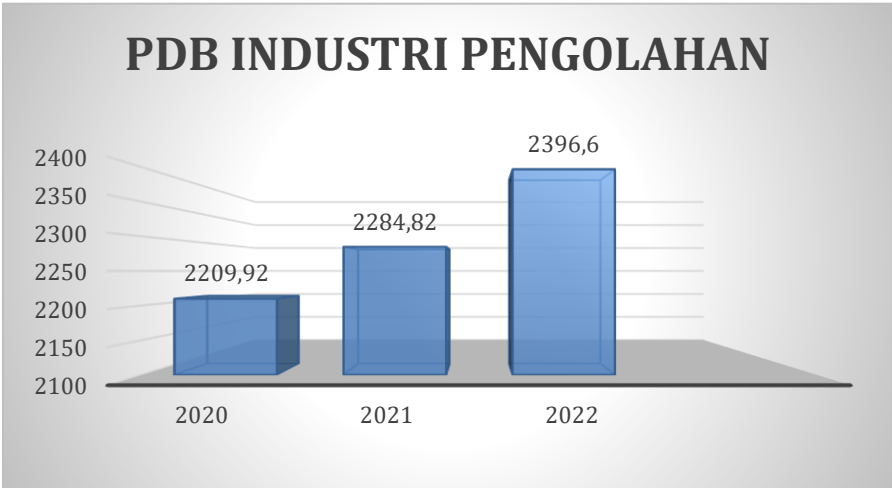
The increasing mobility of the community by using machine-driven vehicles will encourage the level of public consumption so that the growth of household consumption (KRT) will increase. The contribution of household consumption to Gross Domestic Product (GDP) is quite significant, amounting to 56 percent. If KRT continues to grow by an average of at least 5 percent yoy, it can maintain national economic growth of at least 5 percent. The prospect of the automotive industry being maintained in the second half of 2021 is also supported by Indonesia's population of 272 million people, with half of the population being of productive age and entering the middle class category with high consumption potential. The strategic role and contribution of the automotive sector both in the structure of the processing industry and the national economy, the government may reconsider the best

stimulus and incentive policies to encourage the growth of the national automotive sector.

The contribution of the Indonesian textile industry to the total national gross domestic product (GDP) in 2020 decreased to 1.21% (from 1.26% in 2019), but in 2021 it experienced a significant increase of 6.08% in the third quarter of 2021. TPT performance was helped by the high demand for personal protective equipment or PPE for the purposes of handling COVID-19.

Based on data from the Central Statistics Agency (BPS), the gross domestic product (GDP) of the information and communication business field on the basis of current prices (ADHB) reached Rp748.75 trillion throughout 2021. Meanwhile, according to GDP at constant basic prices (ADHK) 2010, the information and communication sector grew 6.81% to Rp696.46 trillion in 2021 compared to the previous year. As seen in the graph, in the last decade the growth of the information and communication sector has always been above the growth rate of Indonesia's GDP. The high contribution of telecommunications GDP to the economy in Indonesia during the pandemic was none other than because at that time Work from Home (WFH) was implemented and all schools in Indonesia implemented online home learning.

**Processing Industry GDP Increase Chart 2020-2022**



Sumber: BPS (Badan Pusat Statistik)

From BPS data on GDP ( gross domestic product) on the basis of constant prices, the Indonesian processing industry in 2020 decreased by -



2.93% from the previous one in 2019 there were 2,276.67 trillion mrns to 2,209.92 trillion in 2020, this was due to the pandemic many shops and MSMEs went out of business so that many mass layoffs were carried out by companies, therefore in 2020 the processing industry, and increased by 3.39% to 2284.82 trillion in 2021 and again increased rapidly in 2022 by 4.89% to 2396.6 trillion.

## CONCLUSION

Based on the analysis of the input-output table carried out, the contribution of the non-oil and gas processing industry sector to the national Gross Domestic Product (GDP) was 17.33% or higher compared to other industrial sectors during the pandemic. The processing industry also plays a role in repairing the weakening of household consumption and people's purchasing power due to the covid 19 pandemic which has paralyzed almost all community activities. This industry absorbs a fairly high workforce during the pandemic and continues to increase even after the pandemic, especially in the food and beverage industry subsector. The food and beverage industry is the highest contributor to GDP at 1,057,001.27 billion in 2020. This is due to the large number of people who have switched professions to become online food and beverage sellers, during the pandemic, people's mobility was limited so that online food and beverage sales mushroomed at that time. In addition to the food and beverage industry, there are 6 sub-sectors of the processing industry that also contribute to generating the economy during the pandemic until after the pandemic, these sub-sectors are chemicals, textiles and clothing, automotive, electronics, pharmaceuticals, and medical devices. With the contribution of the processing industry sector, it has helped to revive the Indonesian economy as well as restore the Indonesian economy due to the impact of the pandemic.

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