

Covid-19 Pandemic Analysis Toward Productivity Giving Layoffs Effect in The Company of Industrial Sector around South Tangerang

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Abstract. This Study aims to determine the effect of covid-19 pandemic analysis toward productivity giving layoffs effect in the company of industrial sector around South Tangerang. The method used was explanatory research with a sample of 96 respondents. The Analysis technique uses statistical analysis with regression testing, correlation, determination and hypothesis testing. The results of this study Pandemic Covid-19 have a negative and significant effect on productivity with a correlation value of -0.633 meaning that the two variables have a strong negative relationship with a contribution of 40.0%. Hypothesis testing obtained a significance value of $0.000 < 0.05$. Productivity has a negative and significant effect on layoffs effect in the company with a correlation value of -0.622 meaning that both variables have a strong negative relationship with an influence contribution of 38.7%. Hypothesis testing obtained a significance value of $0.000 < 0.05$.

Keywords: Covid-19 Pandemic, Productivity, Layoffs Effect

1. INTRODUCTION

Background problems

Since 31 December 2019, China Country Office reported cases of pneumonia unknown etymological in Wuhan City, province of China, the world made the year 2020 NCP began to become a global pandemic and became a health problem in some countries in CHINA. This case is also the world's problem considering that China is one of the most important countries in the world of international trade.

Based on the World Health Organization (WHO) cases of cluster pneumonia with an unclear etiology in Wuhan city the spread of an epidemic Corona continues to evolve almost across the world. The case for the other countries is known until there are reports in some countries whose people are infected by the virus. On 30 January 2020 WHO established COVID-19 as the Public Health Emergency of International Concern (PHEIC). The increase in the number of COVID-19 cases lasts fast enough and there has been a spread to various countries with varying amounts.

Indonesia is also one of many countries affected by this virus with the number of people in monitoring, the patient in the supervision and the positive and died relatively large. The preventive measures have been well done by the Government but this is certainly not easy because of the policies taken there are some that have an impact on certain sectors such as the industry.



Figure 1. Chart of adding a number of days pandemic cases Covid-19 in Indonesia

In the chart above, it shows the fluctuation of the increase in the number of Covid-19, which is increasingly increasing with the spread of various regions in Indonesia that require the government to take a serious treatment but still try to maintain a sufficient supply of food needs.

OECD downgrades growth forecasts

Economic growth (GDP) expected to slow down in 2020

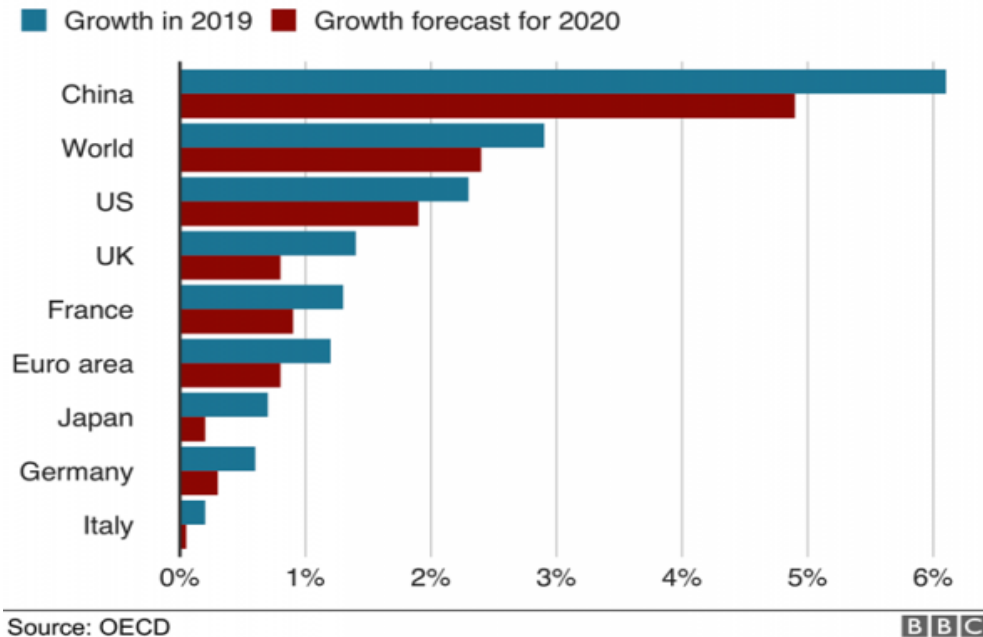


Figure 2. OECD Growth (GDP)

In the chart above, it shows that the growth of the income per capita in the country would have slowed down in 2020. Similarly, the impact of this Corona pandemic on the growth of the stock market in the trading world also fall on decreased.

Coronavirus impact on stock markets

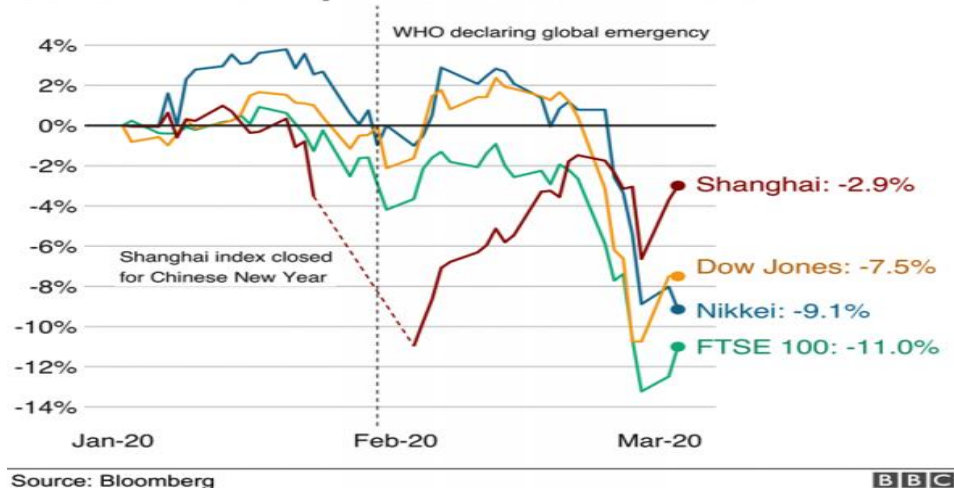


Fig. 3. Coronavirus on Effect Exchange

According to research from Moody's industry most affected the impact is divided into three parts. The first part of the most affected is high enough that industries such as garment, automotive, automotive supplier, consumer, tourism, airline, and delivery. In the second part of the moderate impact is the beverage, chemical, manufacturing, media, metals and mines, oil and

gas, property, agriculture, and hardware technology companies. In the third part affected somewhat minimal are the industries such as construction, defence, equipment, transportation, pharmaceutical, packaging, food retail to telecommunication.

The spread of Corona virus is likely to slow economic growth. Moody's rating agency mentions, the financial impact on the coronavirus has been felt in some major corporate sectors. "Sectors that rely on trade and free movement of the most exposed people, such as airline, shipping, and lodging and leisure travel include cruise lines and restaurants," (<https://money.kompas.com/read/2020/03/17/150804026/ini-sektor-industr-yang-paling-terdampak-virus-corona>).

The industry is one of the biggest contributors to Indonesia's gross domestic product (GDP) last year. The contributions given from this industry in GDP 2019 were recorded at 19.62 percent. The contribution is far above the trade, agriculture, construction and mining.

According to data collected from the Central Statistics Agency (BPS) during February 2020 the import value of all the goods dropped compared to January 2020. Starting from imports of consumption materials that decreased by 39.91 percent, then imports of raw materials/helpers dropped 15.89 percent until capital goods dropped 18.03 percent. It also proved that the decline of raw material imports in the middle of the country.

This decline will also arise due to restrictions on all forms of activities outside the home in order to prevent the spread of COVID-19 which eventually impacts the economic activity and makes the turnover of money slower. However, the Government believes that even though the virus is spread, all kinds of daily necessities such as groceries are maintained.

Towards *Ramadan*, the factories will normally boost production to meet the needs of community clothing. Is not *Lebaran* is identical with new clothes and shoes? This period was supposed to be a harvest period for convection workers to shoe and sandals factories. Under normal conditions, they will continuously work overtime to earn extra wages. But it only happens before there is coronavirus.

Manufacturing Industry, also experienced the impact of this case. Contributions to GDP manufacturing industry sector last year were recorded at 19.62%. The decline in performance in this sector ensured a significant impact on Indonesia's overall economic performance. "Our estimate, after the impact of corona, if economic growth can reach 4.5% is already good," said the chairman of Indonesian Entrepreneurs Association (APINDO) Hariyadi Sukamdani. He added, "It is remarkable to the impact of this corona virus." (Source: <https://katadata.co.id/telaah/2020/04/01/pukulan-dua-arah-virus-corona-ke-industri-manufaktur>).

South Tangerang is one of the city's buffer cities with majority of working in the manufacturing industry AND SMEs are also experiencing the impact of this pandemic, where many industries are forced to reduce their production capacity due to the lack of smooth raw materials and local government policy for all communities to adhere to the policies for activities at home as one attempt to break the Covid-19 spread chain.

Table 1. Number of industries and workers in South Tangerang year 2019

Kecamatan	2019		Jumlah Perusahaan
	Pekerja Produksi Laki-laki	Perempuan	
Setu	970	538	135
Serpong	564	631	124
Pamulang	668	273	94
Ciputat	480	274	103
Ciputat Timur	458	112	48
Pondok Aren	660	510	278
Serpong Utara	791	616	110
Kota Tangerang Selatan	4 377	2 815	892
	7192		

Thousands of workers in the city of Tangerang are exposed to termination of employment (PHK) during corona or Covid-19 pandemic. As many as 53 affected companies have reported to the Department of Manpower (Disnaker) Tangerang City (source:

<https://palapanews.com/2020/04/09/pandemi-covid-19-ribuan-buruh-di-kota-tangerang-kena-phk/>).

The secretary of the city Employment office, Yantie Sari, said that as many as 1,582 people have reported the layoffs. "The Data is appropriate *by name by address* or full name and address," said Yantie to *hashtag*, tuesday, 14 April 2020. (Source: <https://www.tagar.id/imbis-covid19-ribuan-pekerja-kota-tangsel-kena-phk>).

"Companies that are forced to conduct layoffs engaged in retail, outsourcing, restaurants and so forth. The management of the company impacted by the plague covid-19 because it could not pay the wages of its employees. The Data is periodically reported to the province in order to reverify, "

Although there is a layoffs employee, said Yantie, the company has not closed. Absence of LAYOFFS as there is reduction of employees. "For instance there are 10 workers and reduced to 5 workers alike. But that doesn't mean the company's data is closed, because we haven't yet closed the company's report, "he said. Mayor of South Tangerang (*Tangsel*) Airin Rachmi Diany said that facing mass layoffs there are pre-working cards that have been open registration from the government with "later the layoffs can register and for entrepreneurs there is a reduction and delay of payment of retribution from each service. If in the center of UMKM that has an instalment there will be a delay of installments up to a year and this continues to socialize to the public, "but in reality the field has not all workers who are destroyed or affected by termination of employment is entitled.

Either until when no one dares to conclude when this pandemic will be completely finished. In fact, some cities are still applying the distribution to the visit.

Countries with travel restrictions because of coronavirus

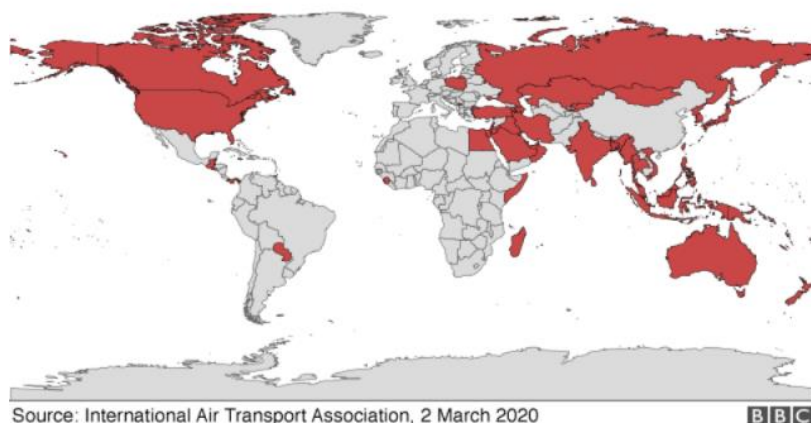


Fig. 4. Countries with travel restrictions due to coronary viruses

The travel industry has been heavily impacted, with airlines cutting flights and tourists canceling business trips and vacations.

Data from the analytic firm *ForwardKeys* shows international flights ordered from China to be in the back of 55.9% compared with the same period in the year 2019.

UK travel industry experts have expressed concern about Chinese tourists being imprisoned at home. There were 415,000 visits from China to the UK in 12 months until September 2019, according to *VisitBritain*. Chinese tourists also spend three times as much for an average visit to the UK for a price of £1,680 each.

As more large-scale events are cancelled and the number of flight cancellations increases, there are concerns this industry will get a bigger punch.

In terms of import duty policy, the government is freeing customs imports for 19 industrial sectors that are difficult to get supply due to Corona virus pandemic. Minister of Industry Agus Gumiwang said the incentives were given to reduce the production or distribution of manufacturing industrial products. Moreover, China which is the epicenter of Covid-19 supplies about 30% of the raw materials for the national manufacturing industry. The disruption of goods delivery from China makes factories in the country to compete for the source of supply of raw materials from other countries. "We have to make sure that the industry can get the raw material

in order for them to resume its operation," said Agus in a press conference in Jakarta, Friday (13/3) then. As for, the 19 manufacturing industries that got the incentives are: industrial chemicals and goods from the Chemicals industrial electrical appliances Industry motor vehicle, trailer and semi trailer pharmaceutical industry, chemical medicine products and traditional medicine industrial basic metal industry Other transportation equipment paper industry and goods of the paper food industry computer industry, electronic goods and optics industrial machinery and supplies textile industry rubber industry, goods from rubber and plastics furniture industry printing industry and reproduction media recordings industrial goods not metal.

Production and consumption of a lethargic household made Bank Indonesia (BI) projected economic growth in the range of 4.2-4.6%. In the Indonesian Economic Report (LPI) 2019, BI mentions, limited production and economic activity in the affected countries Covid-19, including Indonesia, resulting from the limited supply of goods between from other countries for production purposes. Moreover, the restriction of economic activity for the prevention of spread also makes the turnover of money slower. Concerns over the Covid-19, the government's encouragement to reduce mobility, and the decline in future economic growth beliefs affect the behavior patterns of public consumption. "Society tends to increase the consumption of basic needs and delay other consumption,"

Problem formulation

1. Is there any influence between pandemic Covid-19 to productivity in industrial sector companies in South Tangerang area?
2. What is the influence of productivity on termination of employees ' employment in industrial sector companies in South Tangerang area?

Research objectives

1. Knowing the influence between pandemic Covid-19 to productivity in industrial sector companies in South Tangerang area.
2. Knowing the impact of productivity on the termination of employee employment in industrial sector companies in South Tangerang area?

2. LITERATURE REVIEW

2.1 Covid-19 Pandemic (X)

SARS-CoV-2 Corona virus infection causes illness with symptoms including coughing, flu, fever, and asphyxiation. Today, the SARS-CoV-2 virus infection is called COVID-19 (*Coronavirus Disease 2019*). According to the *World Health Organization* (WHO), the SARS-CoV-2 Corona virus spreads through liquid droplets released by individuals who have contracted by the virus when coughing or sneezing. Therefore, now everyone is advised to always cover the mouth and nose when sneezing and coughing or at any time by using a mask.

2.2 Productivity

Productivity is productive efficiency measures. A comparison between output and input. Input is often limited by labor, while output is measured in physical unity, shape, and value. According to Simamora (2015), He argues that "Work productivity is a comparison between the results achieved by a person and a specified time target with all the resources used."

2.3 Layoffs

Industrial relation is a relationship between all parties involved or interested in the process of producing goods or services in a company. The most concerned party for the success of the company and daily direct contact are entrepreneur (businessman) or management and workers. Layoffs can be due to various things, such as the completion of a certain time that has been agreed/covenant previously and can also be due to disputes between workers/labors or for other reasons.

According to Lalu Husni (2010:195), He claims that layoff is an unexpected incident, especially for the workers/labors class because the workers/labors involved will lose their livelihood to support themselves and their families. Therefore, all parties involved in industrial relations both entrepreneur, workers/labors and the government with all efforts should attempt to avoid the layoffs.

Provisions for the layoff of employment are regulated in law No. 13 of 2003 Chapter XIII

concerning The Termination of Employment. In its development, the law No. 13 of 2003 was materially tested and based on the Constitutional Court Decision Number 012/PPU-1/2003 On October 28, 2004 concerning Material Testing Rights of Law Number 13 of 2003 concerning Labor Against the 1945 Constitution of the Republic of Indonesia, part of some Articles which have tested materially does not have legal force. Compensation for the termination of employment is in the form of severance pay. Honorary service fees, and the amount of compensation and requirements for granting normatively are regulated in Article 156 of Law no. 13 of 2003.

3. RESEARCH METHODS

Population

The population in this study amounted to 85 employees are from The Gemilang Corporation.

Sample

The sampling technique in this study is saturated sampling, where all the members of the population are being sampled. Thus the sample in this study amounted to 96 respondents.

Type of Research

The type of research used is associative, where the aim is to find out and look for the connectedness between

Data Analysis Method

In analyzing the data, it is used instrument test, classical assumption test, regression, coefficient determination and hypothetical test.

A. The Results Of Research

Descriptive Analysis

At this test, it is used to find out the minimum and maximum score on the highest score, rating score and standard deviation from each variable. The results are as follows:

Table 1. The Result of Descriptive Statistics Analysis

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Covid-19 Pandemic (X)	96	16	49	34.79	7.656
Productivity (Y)	96	17	46	30.69	6.909
Layoffs (Z)	96	18	50	35.29	8.001
N Valid (listwise)	96				

Covid-19 pandemic (X) obtained a minimum *variance* of 16 and a maximum *variance* of 49 with a 3.47 *rating score* and a standard deviation of 7.656. Productivity obtained a minimum *variance* of 17 and a maximum *variance* of 46 with a 3.06 *rating score* and a standard deviation of 6.909. Layoffs obtained a minimum *variance* of 18 and a maximum *variance* of 50 with a 3.52 *rating score* and a standard deviation of 8.001.

Verificative Analysis

In this analysis, it is intended to find out the influence of independent variables toward the dependent variables. As for the following test results :

1. The Influence of Covid-19 Pandemic (X) toward Productivity (Y)

a. Simple Linear Regression Analysis

This regression test is intended to find out the change of a dependant variable if an independent variable changes. As for the results of the test as follows:

Table 2. The Result of Simple Linear Regression Testing

Model	Coefficients ^a			t	Sig.
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta		

1	(Constant)	50.55 4	2.567		19.69 2	.000
	Covid-19 Pandemic (X)	-.571	.072	-.633	-7.922	.000

a. Dependent Variable: Productivity (Y)

Based on the result of the test at the table above, it is obtained the regression equation of :

$$Y = 50.554 - 0.571X.$$

From this equation described as follows:

- 1) A 50.554 constant is meant that Covid-19 Pandemic does not exist. Thus, there is a productivity value of 50.554 points.
- 2) The regression coefficient of Covid-19 Pandemic (X) variable is -0.571, this number is negative means that with an increase in covid-19 pandemic (X) by 0.571, thus the productivity (Y) will also decrease by - 0.571 points.

b. Correlation Coefficient Analysis

Correlation coefficient analysis is intended to find out the power levels of the relation of independent variables toward the dependent variables. The test results are as follows:

Table 3. The Result of Correlation Coefficient Testing of Covid-19 Pandemic (X) toward Productivity (Y)

		Correlations^b	
		Covid-19 Pandemic (X)	Productivity (Y)
Covid-19 Pandemic (X)	Pearson Correlation	1	-.633**
	Sig. (2-tailed)		.000
Productivity (Y)	Pearson Correlation	-.633**	1
	Sig. (2-tailed)	.000	

** . Correlation is significant at the 0.01 level (2-tailed).

b. Listwise N=96

Based on the results of the test, it is obtained a correlation value of - 0.633, this value is negative means that Covid-19 Pandemic (X) has a strong relation but negative toward Productivity (Y).

c. Determination Coefficient Analysis

Coefficient analysis of the determination is intended to find out the percentage of the impact of independent variables toward dependent variables. The test results are as follows:

Table 4. The Result of Determination Coefficient Testing of Covid-19 Pandemic (X) toward Productivity (Y)

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.633 ^a	.400	.394	5.379

a. Predictors: (Constant), Covid-19 Pandemic (X)

Based on the result of the test, it is obtained the *R Square* value of 0.400. It means that Covid-19 Pandemic (X) has an influence contribution of 40.0% toward productivity (Y), while the remaining of 60.0% is influenced by other factors which are not analyzed in this study.

d. Hypothetical Testing (t Test)

Hypothetical testing with t test is used to find out which partial hypotheses are accepted. First hypothesis: There is a significant negative influence between Covid-19 Pandemic (X) toward Productivity (Y).

Table 5. The Result of Hypothetical Test of Covid-19 Pandemic (X) Variable toward Productivity (Y)

Model		Coefficients ^a			t	Sig.
		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error			
1	(Constant)	50.554	2.567		19.692	.000
	Covid-19 Pandemic (X)	-.571	.072	-.633	-7.922	.000

a. Dependent Variable: Productivity (Y)

Based on the test result at the table above, it is obtained that the value of t count < t table or (-7.922 < 1.986) and It is also reinforced by the significance of 0.000 < 0.050, thus it can be concluded that there is a significant negative influence between Covid-19 Pandemic (X) and Productivity (Y).

2. The Influence of Productivity (Y) toward The Employee's Layoffs (Z)

a. Simple Linear Regression Analysis

This regression test is intended to find out the change of a dependant variable if an independent variable changes. As for the results of the test as follows:

Table 6. The Result of Simple Linear Regression Testing

		Coefficients ^a				
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	57.396	2.941		19.513	.000
	Productivity (Y)	-.720	.094	-.622	-7.701	.000

a. Dependent Variable: Layoff (Z)

Based on the result of the test at the table above, it is obtained the regression equation of :

$$Z = 57.396 - 0.720Y.$$

From this equation described as follows:

- 1) A 57.396 constant is meant that productivity (Y) does not exist. Thus, there is a layoff value of 57.396 points.
- 2) The regression coefficient of productivity (Y) variable is -0.720, this number is negative means that with a decrease in productivity (Y) by -0.720 points, thus the Employee's Layoff (Z) will also increase by - 0.720 points.

b. Correlation Coefficient Analysis

Correlation coefficient analysis is intended to find out the power levels of the relation of independent variables toward the dependent variables. The test results are as follows:

Table 7. The Result of Correlation Coefficient Testing of Productivity (Y) toward Employee's Layoff (Z)

		Correlations^b	
		Productivity (Y)	Layoff (Z)
Productivity (Y)	Pearson Correlation	1	-.622**
	Sig. (2-tailed)		.000
Layoff (Z)	Pearson Correlation	-.622**	1
	Sig. (2-tailed)	.000	

** . Correlation is significant at the 0.01 level (2-tailed).

b. Listwise N=65

Based on the results of the test, it is obtained a correlation value of 0.622, this value is negative means that Productivity (Y) has a strong relation but negative toward Employee's Layoff (Z).

c. Determination Coefficient Analysis

Coefficient analysis of the determination is intended to find out the percentage of the impact of independent variables toward dependent variables. The test results are as follows:

Table 8. The Result of Determination Coefficient Testing of Productivity (Y) toward Layoff (Z)

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.622 ^a	.387	.380	6.299

a. Predictors: (Constant), Productivity (Y)

Based on the result of the test, it is obtained the *R Square* value of 0.387. It means that Productivity (Y) has an influence contribution of 38.7% toward layoff (Z), while the remaining of 61.2% is influenced by other factors which are not analyzed in this study.

d. Hypothetical Testing (t Test)

Hypothetical testing with t test is used to find out which partial hypotheses are accepted. Second hypothesis: There is a significant negative influence between Productivity (Y) toward employee's layoff (Z).

Table 9. The Result of Hypothetical Test of Productivity (Y) Variable toward Employee's Layoff (Z).

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
		B	Std. Error			
1	(Constant)	57.396	2.941		19.513	.000
	Productivity (Y)	-.720	.094	-.622	-7.701	.000

a. Dependent Variable: Layoffs (Z)

Based on the test result at the table above, it is obtained that the value of t count < t table or (-7.701 < 1.986) and It is also reinforced by the significance of 0.000 < 0.050, thus it can be concluded that there is a significant negative influence between productivity (Y) and employee's layoffs (Z).

Study Results

1. The Influence of Covid-19 Pandemic toward Productivity in Industrial Sector Company in the South Tangerang Region

Covid-19 pandemic has a significant negative influence toward productivity with the regression equation of $Y = 50.554 - 0.571X$, The regression coefficient is negative, it means that the covid-19 pandemic causes a decrease in productivity with a correlation of -0.633, this shows that the two variables have a strong negative relation with the influence contribution of 40.0%. Hypothetical testing obtained a significance value of $0.000 < 0.05$. Thus there is a significant negative influence between covid-19 pandemic toward productivity in industrial sector company in the South Tangerang Region.

2. The Influence of Productivity toward Employee's Layoffs in Industrial Sector Company in the South Tangerang Region

Productivity has a significant negative influence toward employee's layoffs with the regression equation of $Z = 57.396 - 0.720Y$, The regression coefficient is negative. It means that if the productivity is increased, it will be able to decrease the number of layoffs with a correlation of -0.622, or it has a strong negative relation with the influence contribution of

38.7%. Hypothetical testing obtained a significance value of $0.000 < 0.05$. Thus there is a significant negative influence between productivity toward employee's layoffs in industrial sector company in the South Tangerang Region.

CONCLUSIONS

1. Covid-19 pandemic has a significant negative influence toward productivity with a correlation value of -0.633, it means that the two variables has a strong negative influence with influence contribution of 40.0%. Hypothetical testing obtained a significance value of $0.000 < 0.05$.
2. Productivity has a significant negative influence toward employee's layoffs with a correlation value of -0.622, it means that the two variables has a strong negative influence with influence contribution of 38.7%. Hypothetical testing obtained a significance value of $0.000 < 0.05$.

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