

# Analysis of Loan Disbursement in Indonesia: A Perspective on Business Scale and Industry Characteristics (2017-2022 Period)

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## Abstrak

Penelitian ini bertujuan untuk menganalisis perbedaan penyaluran kredit sebelum dan pada masa pandemi, baik dengan mempertimbangkan skala usaha maupun karakteristik industri. Penelitian ini menggunakan desain penelitian kuantitatif komparatif, dengan memanfaatkan data sekunder yang bersumber dari Badan Pusat Statistik (BPS). Populasi penelitian terdiri dari badan usaha/unit penerima pembiayaan dari perbankan di Indonesia pada periode tahun 2017 sampai dengan tahun 2022. Sampel penelitian ditentukan menggunakan teknik non-probability sampling dengan kategori sampling jenuh. Teknik analisis data yang digunakan meliputi uji t sampel berpasangan dan uji t sampel independen. Hasil penelitian ini menunjukkan adanya perbedaan yang signifikan pertumbuhan penyaluran kredit sebelum dan pada masa pandemi COVID-19, baik jika mempertimbangkan skala usaha maupun karakteristik industri. Pada masa pandemi COVID-19, penyaluran kredit usaha pada Usaha Mikro, Kecil, dan Menengah (UMKM) skala kecil melebihi penyaluran kredit usaha non-UMKM. Selain itu, sektor-sektor yang terkena dampak pandemi ini menunjukkan pertumbuhan kredit yang lebih rendah dibandingkan dengan sektor-sektor ekonomi yang tidak terkena dampak pandemi ini. Berdasarkan temuan ini, pemerintah harus berhati-hati ketika merumuskan kebijakan untuk memastikan kebijakan tersebut tepat sasaran. Selain itu, badan usaha juga harus mempunyai rencana darurat (contingency plan) permodalan jika terjadi krisis. Keterbatasan penelitian ini adalah penentuan sektor ekonomi terdampak Covid-19 hanya didasarkan pada laju pertumbuhan PDB. Penelitian ini bermanfaat bagi pemerintah dan lembaga perbankan untuk mengevaluasi kebijakan penyaluran kredit di masa pandemi.

**Kata kunci:** *Penyaluran Pinjaman, Pandemi Covid-19, UMKM, Karakteristik Industri*

## Abstract

The aim of this research is to analyze the differences in loan disbursement before and during the pandemic, considering both business scale and industry characteristics. This study employs a quantitative comparative research design, utilizing secondary data sourced from the Central Statistics Agency (Badan Pusat Statistik or BPS). The research population consists of business entities/receiving units of financing from banks in Indonesia over the period from 2017 to 2022. The research sample is determined using a non-probability sampling technique with a saturation sampling category. Data analysis techniques employed include paired sample t-tests and independent sample t-tests. The results of this research indicate a significant difference in the growth of credit distribution before and during the COVID-19 pandemic, both when considering business scale and industry characteristics. During the COVID-19 pandemic, the distribution of business credit to Micro, Small, and Medium Enterprises (UMKM) on a small scale surpasses that of non-UMKM businesses. Additionally, sectors affected by the pandemic exhibit lower credit growth compared to less-affected economic sectors. Based on these findings, the government must exercise caution when formulating policies to ensure they are accurately targeted. Furthermore, business entities must have contingency plans for capital in the event of a crisis. The limitation of this research is that the determination of Covid-19-affected economic sectors is solely

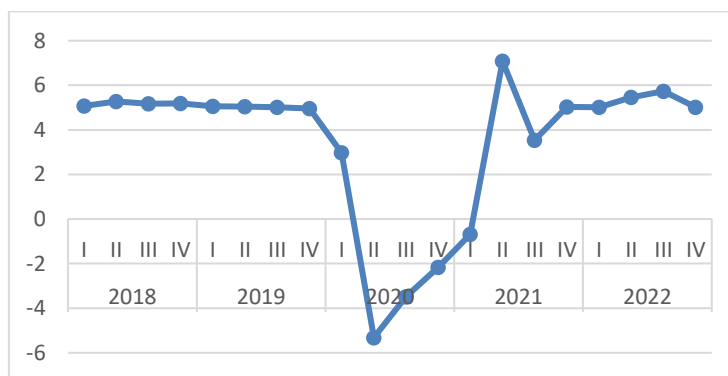
based on the GDP growth rate. This research is useful for the government and banking institutions to evaluate credit disbursement policies during a pandemic.

**Kata kunci:** *Loan Disbursement, Covid-19 Pandemic, MSMEs, Industry Characteristic.*

## INTRODUCTION

The COVID-19 pandemic has had a significant impact on society. Aside from its fatal effects on health, the pandemic has also affected the economic condition due to large-scale social restrictions. Shopping centers, tourism, and other public facilities were closed. This resulted in a decrease in revenue and financial crises for companies across various sectors. Many companies had to close their doors because they couldn't withstand the pandemic.

The Covid-19 virus has caused a weakening of the global economy. According to the World Bank (2022), governments play a crucial role in mitigating the shocks caused by COVID-19. Various countries have implemented policies to minimize the pandemic's impact. In Indonesia, one of the government's policies to prevent virus spread was the issuance of large-scale social restrictions (PSBB). While this policy effectively severed the chain of COVID-19 transmission, on the flip side, it impacted economic paralysis, leading to a contraction in Indonesia's economic growth.



**Image 1.1 Quarterly GDP Growth Rate (y-o-y) 2018-2022 (percent)**  
Source: BPS (2023)

The image depicts Quarterly GDP Growth Rate (y-o-y) for the years 2018-2022. Indonesia's economic growth tends to be influenced by government policies as well as direct and indirect external effects. Before the onset of the Covid-19 pandemic, Indonesia experienced a 5.02 percent growth in 2019. The Covid-19 pandemic, which began affecting Indonesia in early 2020, triggered a contraction in the country's economic growth. In the second quarter of 2020, Indonesia's economy contracted by 5.32 percent (y-o-y) (BPS, 2023). The gradual implementation of the New Normal policy on June 1, 2021 significantly influenced Indonesia's economy, leading to a growth rate of 5.02% in 2021. On December 30, 2022, through Instruction of the Minister of Home Affairs No. 50 and 51 of 2022, the government officially lifted the status of Large-Scale Social Restrictions (PPKM) in Indonesia, thus removing restrictions on activities and public mobility. In 2022, Indonesia was able to increase its growth to 5.32% (BPS, 2023).

The impact of Covid-19 on various business sectors is quite diverse. One of the effects is the limitation of operational activities due to Large-Scale Social Restrictions (PSBB). With PSBB in place, employee working hours are limited, distribution and transportation activities are restricted, shopping centers and public entertainment facilities are closed. This leads to a decrease in business revenue, affecting company cash flows. In tight cash flow conditions, many companies fail to meet their loan installment obligations to banks. This, of course, affects the financial performance of banks, especially in terms of the increasing Non-Performing Loan (NPL) ratio.

The impact of PSBB varies for each economic sector. According to the Ministry of Finance of the Republic of Indonesia (2021), the sectors most affected by the pandemic are manufacturing,

trade, transportation, and accommodation. Companies in these sectors experience limited cash flow, contracted financial performance, employee layoffs, and even the risk of bankruptcy. In the financial services sector, such as banking, where lending is a primary activity that generates the largest profits, the cessation of business activities affects the bank's performance and can threaten its liquidity.

Governments around the world have acted swiftly to provide stimulus in various forms to mitigate the economic downturn caused by Covid-19. In many parts of the world, financial and monetary instruments have been used to intervene in the economy. Fiscal stimulus is often aimed at increasing budget allocations for Covid-19 response, supporting households through social safety nets, and assisting affected businesses. Through fiscal policy, governments also ensure the sustainability of business communities, especially those heavily impacted. Meanwhile, monetary stimulus is more focused on lowering interest rates, increasing the money supply, and reducing corporate loan burdens.

Banks are financial institutions whose main function is to gather, store, and distribute funds to and from the public. Commercial banks have several activities to fulfill their functions, one of which is the provision of loans (Patandung and Indrawati, 2021). However, the Covid-19 pandemic has had a significant impact on the economy, affecting the distribution of funds to the public through loans by banks.

Governments and central banks have used fiscal and monetary tools on a large scale to alleviate the financial crisis for companies (Zhang et al., 2022a). Many countries have attempted to introduce loan guarantee programs that have never existed before, and other forms of credit support for their businesses (Bennedsen et al., 2020). Loan guarantees, sometimes coupled with corporate bond purchases by the government, have become a primary policy instrument for injecting liquidity into affected businesses (Alstadsaeter et al., 2020). Survey evidence shows that banks worldwide are tightening lending standards, citing uncertain economic prospects, specific deteriorating industry issues, reduced risk tolerance, and other concerns, with most banks not yet utilizing loan stimulus programs (Çolak and Öztekin, 2021).

Global credit growth has weakened due to limited credit issuance or reduced demand for credit. Lockdown measures inadvertently pushed companies and consumers into solvency and liquidity crises (Bartik et al., 2020). The pandemic also led to a sudden surge in borrower credit risk worldwide, making banks more hesitant to issue loans in this situation, resulting in a negative shock to loan growth. Overall, the pandemic led to a decline in credit growth, even though stimulus and cash injection strategies have been implemented by governments to avoid disruptions in credit issuance (Çolak and Öztekin, 2021).

The issue faced by Indonesia during the pandemic is the disrupted performance and ability of debtors to fulfill their credit obligations due to the spread of COVID-19, potentially affecting the bank's performance in credit or financing. Therefore, policies are needed to address the impact of COVID-19 spread (Disemadi and Shaleh, 2020).

The government has implemented policies to address this by enacting fiscal and monetary policies in response to the impact of Covid-19. Through Press Release No. HM.4.6/88/SET.M.EKON.3/04/2021, the Ministry of Finance conveyed the government's support for MSMEs to recover during the pandemic, as MSMEs are the most important pillar of Indonesia's economy. The government has provided incentive support for MSMEs through the National Economic Recovery Program (PEN).

The government's policy should rightly support the most affected companies to be able to recover and thus minimize the financial crisis experienced (Wong et al., 2022) state that SME Credit Guarantee plays a key role in supporting bank loans to the most affected sectors. Guaranteeing loans is considered important because banks, as loan providers, naturally do not want to incur losses when lending to struggling sectors.

In the study by (Beck and Keil, 2022), it is revealed that the Paycheck Protection Program (PPP) loan strategy played a role in increasing loan distribution during the pandemic. This policy is seen as beneficial for both banks and businesses. For banks, with the PPP in place, the risk of bad loans can be mitigated due to the security provided in loan issuance, while for businesses, it provides ease of access to funding from banks and supports liquidity and operations.

The lack of effective bank regulation and supervision was a major cause of the global financial crisis in 2007–2009. This led to increased calls for regulatory reforms in the banking sector. New regulations, such as higher capital adequacy requirements, restrictions on bank activities, and increased transparency, have been gradually implemented in other countries. However, empirical evidence on the effectiveness of bank regulation and supervision on bank performance and risk-taking appears ambiguous, indicating that stricter regulations do not always benefit as expected by policymakers. Therefore, it is important to assess which policy reforms can promote these bank functions and which ones can harm them (Barth et al., 1999).

The Covid-19 pandemic has had a significant impact on the business and banking world. Governments have implemented various policies to mitigate the effects of Covid, including policies regarding credit distribution by banks. Globally, credit growth has decreased due to the Covid-19 pandemic, with one of the causes being government regulations limiting the amount of credit issuance (Çolak and Öztekin, 2021b). In more detail, (Kolleshi and Bozdo, 2021) state that the Covid-19 pandemic has negatively impacted new credit issuance. In addition to reduced credit issuance, banks provide fewer loans to micro and small-scale businesses compared to large-scale businesses (Čehajić and Košak, 2022).

In contrast to these studies, (Beck and Keil, 2022) reveal that there has been an increase in credit issuance to small businesses. This is because of the Paycheck Protection Program (PPP), which is a low-interest loan applied for payroll and business expenses. This is consistent with the research by (Dursun-de Neef and Schandlbauer, 2022), which found that credit issuance during the Covid-19 pandemic increased due to the larger customer savings resulting from increased savings, leading banks to provide more loans to the real estate sector. In addition to the PPP policy, there are government credit guarantee programs that provide opportunities for businesses to access loans more easily and provide security for banks to distribute credit.

The research by (Wong et al., 2022) states that SME Credit Guarantee plays a key role in supporting bank loans to the most affected sectors in the post-pandemic period. Loan guarantees supported by the state or funding for loan programs contribute to the growth of cheaper guarantee programs associated with banks reporting looser loan standards and higher loan growth (Casanova et al., 2021). SME Credit Guarantee plays a key role in supporting bank loans to the most affected sectors in the post-pandemic period (Eric et al., 2022). However, whether the most affected sectors in the field have actually had ease in accessing loans remains to be seen. (Zhang et al., 2022) found that State-owned companies received more bank loans ranging from 34%-67%. Companies in the real estate sector received the most loans, ranging from 145%-165%.

Based on previous research results, there are still differences in research findings. A crisis is a devastating event, and COVID-19 has had a tremendous impact. This provides an opportunity for further research. Berger and Demirgüç-Kunt, 2021 suggest one research topic that can be taken up is the behavior of banking during a crisis, to what extent credit is extended to small and micro businesses. Additionally, there is currently no detailed research in Indonesia comparing the differences in the amount of credit issuance for each business scale during the pandemic, as well as comparing the amount of credit issuance to each business sector, where the Covid-19 pandemic has different impacts on each business sector.

To the best of the author's knowledge, there has been no research analyzing banking credit distribution before and during the pandemic and comparing it by business scale and business field characteristics. The author chose this with the intention of providing a clear picture of how banking in Indonesia responds to government policies regarding credit distribution and plays a role in reviving the economy in Indonesia. These reasons underlie the author's choice of the title "Analysis of business credit distribution in Indonesian banking viewed from business scale and business field characteristics (period 2017-2022)."

## **METODE**

This research is a comparative study. Comparative research aims to compare one variable with another variable. The approach used is the comparative problem formulation approach. Comparative problem formulation compares the existence of one or more variables in two or more samples or at different times (Sugiyono, 2013).

The purpose of this study is to understand the impact of a phenomenon, namely the COVID-19 pandemic. Data for this study was collected both before and during the pandemic, and a comparative quantitative method was chosen because this research will compare credit disbursement before and during the pandemic, considering business scale and sector.

### **Population and Sample of the Study**

The population of this research is business actors/business units that receive financing from banks in Indonesia from 2017 to 2022. According to data from the Ministry of Cooperatives and SMEs (Kemenkopukm) of the Republic of Indonesia, there are 65,471,134 business units, consisting of 65,465,497 SME units and 5,637 non-SME or large-scale businesses. Among all these business units, there are 17,021,029 SMEs that have received financing from banks.

A non-probability sampling technique with a saturation sampling category is used in this research because all the population data is used as the sample by the researcher. Saturation sampling is usually used when the author wants to make the research results more general with relatively little error (Siyoto and Sodik, 2015). The sample of this study is all business actors/business units that receive financing from banks in Indonesia from 2017 to 2022.

### **Types and Sources of Data**

This study uses secondary data obtained from the official website of the Central Statistics Agency (BPS). The required data is time-series data for the years 2017-2022 related to credit disbursement by banks in Indonesia, categorized by business scale and economic sector. The analyzed data includes economic growth figures and credit disbursement data, which will be tested using statistical tools.

### **Data Collection Technique**

Data is obtained through documentation in the database on the official website of the Central Statistics Agency (BPS). The researcher then downloads this data to be analyzed according to the needs and objectives of the research.

### **Data Analysis Technique**

Descriptive statistics is a statistical method used to analyze data by providing a description or overview of the collected data, without aiming to make conclusions that can be applied generally or generalized. Descriptive statistics is used when the goal is to provide an illustrative description, without attempting to draw conclusions that apply to the entire population from which the sample was taken (Sugiyono, 2019). Descriptive analysis involves the steps of collecting, presenting, and summarizing various characteristics of the data in an effort to provide an adequate picture of the data. This data analysis process involves the use of absolute frequency distribution tables that display percentage figures, averages, medians, ranges, and standard deviations. Hypothesis testing using Paired Sample T-Test and Independent Sample T-Test.

Paired Sample T-Test is a statistical tool used to test the difference between two paired samples. Paired samples are subjects that are the same but undergo different treatments or actions. This test model is used to test research samples before and after an event. According to (Widiyanto, 2013), the paired sample t-test is a testing method used to analyze the effectiveness of a treatment, characterized by the difference in means before and after the treatment is given.

The basic assumption for using this test is that observations or examinations for each pair must be done under the same conditions. The difference in means must be normally distributed. The variance of each variable may be the same or different. To conduct this test, data in interval or ratio scales is required. Paired samples mean that we use the same sample, but the testing is done on that sample twice at different times or within a certain period. The basis for making decisions to accept or reject  $H_0$  in this test is as follows:

- If the significance value  $> 0.05$ , then  $H_0$  is accepted or  $H_a$  is rejected.
- If the significance value  $< 0.05$ , then  $H_0$  is rejected or  $H_a$  is accepted.

Independent Sample T-Test is a statistical analysis tool used to compare the means of a group of data or two groups of independent, unpaired data. In other words, the T-Test aims to determine if there is a difference in means between the compared data. The independent sample t-test is used to determine whether there is a difference in the means of two unpaired samples. The basic requirements for the independent sample t-test are that the data are normally distributed and homogenous (not absolute). Based on the results of the normality test and homogeneity test, the conclusion obtained is that the data is normally distributed and homogeneous.

The basis for determining the Independent T-Test is based on the significance value (2-tailed) which measures whether there is a difference in means between the subjects under study. A significance value (2-tailed) > 0.05 indicates no difference in means among the research subjects. A significance value (2-tailed) < 0.05 indicates a difference in means among the research subjects

## RESULT AND DISCUSSION

Descriptive analysis is used to explain the overview of research data, ranging from the lowest value, highest value, mean, and standard deviation. The results of this analysis are presented in the table below.

Data on business loan distribution based on business scale:

Loan distribution based on the categorized business scale for micro, small, and medium enterprises (MSMEs) and non-MSMEs are as follows:

**Table 2 Loans Granted by Commercial Banks and Rural Banks Based on Business Scale (in billion Indonesian Rupiah)**

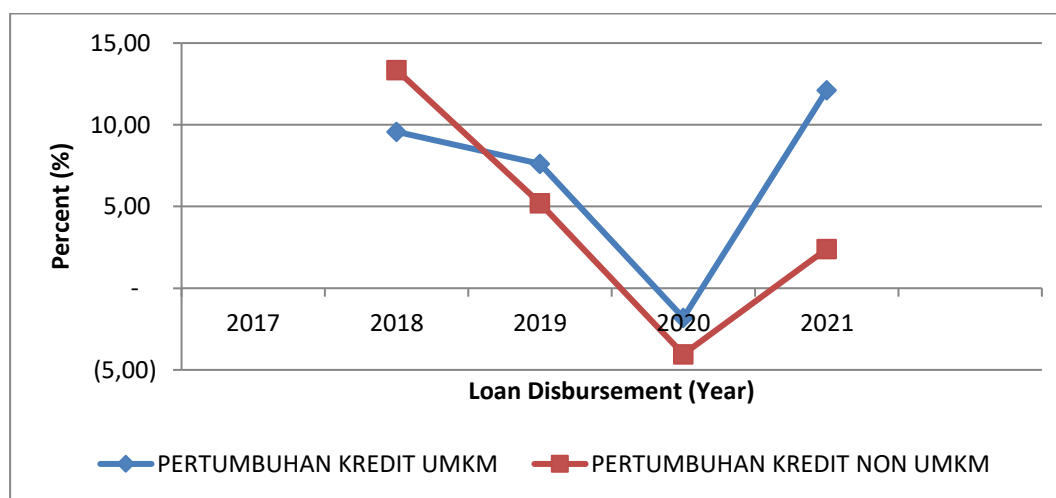
Business Scale	2017	2018	2019	2020	2021	2022
UMKM	942.388	1.032.643	1.111.340	1.091.232	1.223.433	1.280.860
Non-UMKM	2.439.381	2.765.090	2.909.059	2.791.500	2.858.367	3.000.325
TOTAL	3.381.769	3.797.733	4.020.399	3.882.732	4.081.800	4.281.185

Source: BPS (Central Statistics Agency), 2023

**Table 3 Trend of Loan Growth Provided by Commercial Banks and Rural Credit Banks Based on Business Scale**

Business Scale	2017	2018	2019	2020	2021	2022
UMKM	17,49%	9,58%	7,62%	-1,81%	12,11%	4,69%
Non-UMKM	3,56%	13,35%	5,21%	-4,04%	2,40%	4,97%
TOTAL	21,06%	22,93%	12,83%	-5,85%	14,51%	9,66%

Source: BPS (Central Statistics Agency), 2023



**Image 1. Credit Disbursement Growth Chart by Business Scale**

**Table 4 Data on Loan Growth Provided by Banks in Indonesia**

	Before Covid-19 Pandemic		During Covid-19 Pandemic	
	UMKM	Non-UMKM	UMKM	Non-UMKM
Mean	11,56%	7,37%	5,00%	1,11%
Std. Deviation	0,04	0,04	0,06	0,04
Min	7,62%	3,56%	-1,81%	-4,04%
Max	17,49%	13,35%	12,11%	4,97%

Source: BPS (Central Statistics Agency), 2023

The data represents the distribution of business loans provided by Commercial Banks and Rural Banks (BPR) in Indonesia from 2017 to 2022. As shown in the table above, it is evident that in nominal terms, the distribution of loans to Micro, Small, and Medium Enterprises (MSMEs) is lower compared to the distribution of loans to Non-MSMEs, both before and during the COVID-19 pandemic. The first positive case of Covid-19 in Indonesia was detected on March 2, 2020, and the first implementation of Large-Scale Social Restrictions (PSBB) was on May 4, 2020. This led to a decrease in the number of business loans distributed in Indonesia, both to MSMEs and Non-MSMEs. For MSMEs, the loan distribution decreased by -1.81%. This decrease is smaller compared to the decrease in loan distribution to Non-MSMEs, which is -4.04%, resulting in a total decrease in loan distribution of -5.85%.

**Economic Growth Data Based on Industrial Characteristics:**

**Table 5 Gross Domestic Product (GDP) Growth Rate 2017-2022 (Percentage)**

Sektor Ekonomi	Tahun					
	2017	2018	2019	2020	2021	2022
Agriculture, Forestry & Fisheries	3,92	3,88	3,61	1,77	1,84	2,25
Mining and Quarrying	0,66	2,16	1,22	-1,95	4,00	4,38
Manufacturing Industry	4,29	4,27	3,80	-2,93	3,39	4,89
Electricity and Gas Supply	1,54	5,47	4,04	-2,34	5,55	6,61
Water Supply, Waste Management, and Recycling	4,59	5,56	6,83	4,94	4,97	3,23
Construction	6,80	6,09	5,76	-3,26	2,81	2,01
Wholesale and Retail Trade, Repair of Motor Vehicles and Motorcycles	4,46	4,97	4,60	-3,78	4,65	5,52
Transportation and Warehousing	8,49	7,05	6,38	-15,05	3,24	19,87
Accommodation and Food Service Activities	5,41	5,68	5,79	-10,26	3,89	11,97
Information and Communication	9,63	7,02	9,42	10,61	6,81	7,74
Financial and Insurance Activities	5,47	4,17	6,61	3,25	1,56	1,93
Real Estate	3,60	3,48	5,76	2,32	2,78	1,72
Company Services	8,44	8,64	10,25	-5,44	0,73	8,77
Government Administration, Defense, and Mandatory Social Security	2,05	6,97	4,66	-0,03	-0,33	2,52
Education Services	3,72	5,36	6,30	2,61	0,11	0,59
Health Services and Other Activities	6,84	7,15	8,66	11,56	10,46	2,74
Other Services	8,73	8,95	10,57	-4,10	2,12	9,47

Source: BPS (Central Statistics Agency), 2023

The data represents the GDP growth by economic sector for the period 2017-2022. The impact of the COVID-19 pandemic began to be evident in 2020, when the majority of economic sectors experienced growth contraction. Out of 17 economic sectors, there were 10 significantly affected sectors, recording negative growth in 2020, namely:

**Table 6. COVID-19 Affected Economic Sectors (Percentage)**

Economic Sectors	Growth
Transportation and Warehousing	- 15,05
Accommodation and Food Service Activities	- 10,26
Business Services	- 5,44
Other Services	- 4,10
Wholesale and Retail Trade, Repair of Motor Vehicles and Motorcycles	- 3,78
Construction	- 3,26
Manufacturing Industry	- 2,93
Electricity and Gas Supply	- 2,34
Mining and Quarrying	- 1,95
Public Administration, Defense, and Mandatory Social Security	- 0,03

Source: BPS (Central Statistics Agency), 2023

In terms of production, the most severe growth contraction occurred in the field of Transportation and Warehousing at -15.05 percent, followed by Accommodation and Food Service Activities at -10.26 percent, and the Business Services sector at -5.44 percent. Despite most sectors experiencing negative growth, there are other sectors that managed to increase their growth, including:

**Table 7 Less Affected Economic Sectors by COVID-19 (Percent)**

Economic Sectors	Growth
Health Services and Other Activities	11,56
Information and Communication	10,61
Water Supply, Waste Management, and Recycling	4,94
Financial and Insurance Services	3,25
Education Services	2,61
Real Estate	2,32
Agriculture, Forestry & Fisheries	1,77

Source: BPS (Central Statistics Agency), 2023

From the table above, it can be concluded that the economic sectors with the highest growth are the Health Services and Social Activities sector at 11.56 percent and 10.61 percent in the Information and Communication sector. The relatively rapid growth in the health sector is not unrelated to the government's intervention during the pandemic. In July 2020, the government formed the Covid-19 Handling Committee and implemented the National Economic Recovery (PEN) program with a budget of IDR 695.2 trillion. This budget was used for patient treatment costs, healthcare worker incentives, death benefits, and the purchase of Covid-19 vaccines.

Business Loan Disbursement Based on Industry Characteristics:

**Table 8. Loans Provided by Banks Based on Industry Characteristics (in billion Rupiah)**

Economic Sectors	2017	2018	2019	2020	2021	2022
1. Agriculture, Forestry, and Fisheries	332,176	371,475	388,823	405,354	439,266	465,279
2. Mining and Excavation	103,132	123,134	120,744	110,588	137,012	170,046
3. Manufacturing Industry	802,189	877,965	910,998	863,769	909,477	957,937
4. Electricity and Gas Supply	143,489	164,756	191,766	161,984	147,493	148,967



5. Water Supply, Waste Management, Recycling	3,145	5,820	6,160	5,695	5,425	5,201
6. Construction	260,464	319,304	364,500	381,370	385,378	383,461
7. Wholesale and Retail Trade, Repair of Motor Vehicles and Motorcycles	900,007	991,618	1,013,038	953,969	985,007	1,043,391
8. Transportation and Warehousing	127,816	142,071	157,702	166,685	173,529	169,840
9. Accommodation and Food Service Activities	98,480	100,662	111,321	118,148	122,888	123,628
10. Information and Communication	66,012	86,001	100,978	108,065	152,734	165,051
11. Financial and Insurance Activities	212,367	241,455	246,491	213,703	222,037	245,633
12. Real Estate Activities	141,726	159,121	168,890	173,480	170,903	179,025
13. Business Services	80,078	89,000	95,573	82,114	81,128	73,664
14. Public Administration, Defense, and Mandatory Social Security	4,303	7,728	5,219	2,562	4,054	2,173
15. Education Services	10,596	12,774	14,715	14,089	14,542	15,319
16. Health and Other Activities	18,839	22,513	33,588	28,053	28,586	28,854
17. Other Services	76,946	82,334	89,631	93,103	101,785	103,717
<b>Total</b>	<b>3,381,767</b>	<b>3,797,733</b>	<b>4,020,135</b>	<b>3,882,731</b>	<b>4,081,244</b>	<b>4,281,185</b>

Source: BPS (Central Statistics Agency), 2023

The table above shows the loans provided by banks across various sectors from 2017 to 2022. In the pre-pandemic period (2017-2019), the disbursement of loans continued to increase, starting from Rp3,381,767 billion in 2017 to Rp4,020,135 billion in 2019. In 2020, when the pandemic began to spread, the total business credit decreased to Rp3,882,731 billion.

### Classical Assumption Tests

#### Normality Test of Data

The result of the normality test using the Kolmogorov-Smirnov test for paired sample models in the paired sample t-test analysis is explained in the following table.

**Tabel 9 Uji Normalitas Residual**

	Business Scale	Kolmogorov-Smirnov <sup>a</sup>		
		Statistic	df	Sig.
Loan	Industry	.194	6	.200*
Disbursement	UMKM	.174	6	.200*
	Non-UMKM	.274	6	.179

Sumber: Output SPSS, 2023

The result of the normality test for the known variable shows an asymp.sig (2-tailed) value of  $p > 0.05$ , indicating that the data in the research model follows a normal distribution.

### Homogeneity Test

A homogeneity test is a statistical procedure aimed at demonstrating that two or more sample data groups are taken from populations with equal variance. In other words, a homogeneity test is performed to determine whether the studied dataset has the same characteristics.

**Table 10 Homogeneity Test Results**

		Levene Statistic	df1	df2	Sig.
Loan during pandemic	Based on Mean	.095	1	15	.763
	Based on Median	.172	1	15	.684
	Based on Median and with adjusted df	.172	1	14.753	.685
	Based on trimmed mean	.171	1	15	.685

Sumber: Output SPSS, 2023

The homogeneity test results above indicate that the variable of industrial credit during the pandemic, based on the mean, with a significance value ( $p$ ) of  $0.763 > 0.05$ . This means that among the impacted groups (17 groups), the assumption of homogeneity or homogeneity of data distribution is met.

### Hypothesis Testing

#### Paired Sample t-test

The Paired Sample t-Test is a test for the difference between two paired samples. Paired samples refer to the same subjects, but they undergo different treatments. This test model is used to analyze the growth of business credit disbursement in the research before and during the Covid-19 pandemic. The decision-making basis for accepting or rejecting the null hypothesis ( $H_0$ ) in this test is as follows:

- If the significance value  $> 0.05$ , then  $H_0$  is accepted or  $H_a$  is rejected.
- If the significance value  $< 0.05$ , then  $H_0$  is rejected or  $H_a$  is accepted.

This test aims to determine whether the research samples before and during the pandemic have significantly different means or not.

**Tabel 11 Paired Sample t-test**

		Paired Differences		t	df	Sig. Two-Sided p
		Mean	Std. Deviation			
Pair 1	Micro, Small, and Medium Enterprises (MSMEs) Credit Before the Pandemic - MSMEs Credit During the Pandemic	13,94	13,80	4,17	16,00	0,001
	Non-MSMEs Credit Before the Pandemic - Non- MSMEs Credit During the Pandemic	18,59	23,36	3,28	16,00	0,005
Pair 3	Credit to the Industry Before the Pandemic - Credit to the Industry During the Pandemic	14,22	15,21	3,86	16,00	0,001

Source: SPSS Output, 2023

Based on the results of the paired sample t-test, the following conclusions can be drawn:

1. There is a significant difference in the growth of micro, small, and medium enterprises (UMKM) credit distribution before and during the Covid-19 pandemic, as evidenced by a significance value of  $0.001 < 0.05$ . There is a significant difference in the growth of non-U
2. MKM credit distribution before and during the Covid-19 pandemic, as evidenced by a significance value of  $0.005 < 0.05$ .
3. There is a significant difference in the growth of credit distribution before and during the Covid-19 pandemic based on industry characteristics, as evidenced by a significance value of  $0.001 < 0.05$ .

Based on the analysis above:

H1: There is a difference in the distribution of business loans from banks in Indonesia before and during the pandemic, based on the scale of business, accepted.

H3: There is a difference in the distribution of business loans from banks in Indonesia before and during the pandemic, based on industry characteristics, accepted.

**Table 12 Descriptive Statistics in Paired Sample t-test.**

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	"Micro, Small, and Medium Enterprises (UMKM) Credit Before the Pandemic"	15,01	17	14,09	3,42
	"Micro, Small, and Medium Enterprises (UMKM) During Before the Pandemic"	1,07	17	10,90	2,64
Pair 2	"Non-UMKM Credit Before the Pandemic"	18,23	17	19,23	4,66
	"Non-UMKM Credit During the Pandemic"	- 0,36	17	8,77	2,13
Pair 3	"Industry Credit Before the Pandemic"	15,33	17	11,07	2,68
	"Industry Credit During the Pandemic"	1,11	17	7,71	1,87

Source: SPSS Output, 2023

The table provides descriptive statistics for testing the difference in business credit growth before and during the Covid-19 pandemic. From the table above, the following can be observed:

1. The average distribution of credit to UMKM before the Covid-19 pandemic was 15.01%, and after the pandemic, it was 1.07%.
2. The average distribution of credit to Non-UMKM before the Covid-19 pandemic was 18.23%, and after the pandemic, it was -0.36%.
3. The average distribution of credit to the entire industry before the Covid-19 pandemic was 15.33%, and after the pandemic, it was 1.11%.
4. The average distribution of credit to UMKM during the Covid-19 pandemic was 1.07%, while for Non-UMKM, it was -0.36%. This suggests that UMKM credit growth is higher compared to Non-UMKM, which experienced negative growth.

Based on the above description, H2: During the Covid-19 pandemic, the growth of business credit at the UMKM scale is higher than at the non-UMKM scale is accepted because the average distribution of credit to UMKM during the Covid-19 pandemic was 1.07%, while for Non-UMKM, it was -0.36%, indicating that UMKM credit growth is higher than Non-UMKM, which experienced negative growth.

### Independent Sample t-test

The independent sample t-test is a comparative test that aims to examine whether there is a significant difference in means between two independent or unpaired samples. The decision criterion for this test is if the Sig value (2-tailed) or p-value < 0.05, then there is a statistically significant difference.

**Tabel 13 Independent Sample t-test Skala Usaha**

		t-test for Equality of Means				
		Significance				
			One-Sided	Two-Sided	Mean	Std. Error
		df	p	p	Difference	Difference
Pertumbuhan Kredit	Equal variances assumed	32	0,338	0,675	1,43544	3,39414
	Equal variances not assumed	30,594	0,338	0,675	1,43544	3,39414

Source: SPSS Output, 2023

Based on the results of the independent sample t-test, it can be concluded that the growth of business credit during the Covid-19 pandemic for UMKM and Non-UMKM obtained a significance value (2-tailed) of 0.675, which is >0.05. This indicates that there is no significant difference in the growth of UMKM and non-UMKM business credit during the COVID-19 pandemic.

**Table 14 Descriptive Statistics for Independent Sample t-test by Business Scale**

Business Scale		N	Mean	Std. Deviation	Std. Error Mean
Loan Growth	UMKM	17	1,0745	10,90462	2,64476
	Non-UMKM	17	-0,3610	8,77114	2,12731

Source: SPSS Output, 2023

The table presents the descriptive statistics for testing the difference in the growth of credit for Micro, Small, and Medium Enterprises (UMKM) and Non-UMKM during the Covid-19 pandemic. Based on the Independent Sample t-test results, there is no significant difference. From the table above, it can be observed that the average credit allocation to UMKM during the Covid-19 pandemic is 1.07%, while for Non-UMKM it is 0.36%. Although there is no significant difference, the growth of UMKM credit is higher compared to non-UMKM, which actually experienced negative growth.

**Table 15 Independent Sample T-test for Economical Sectors Affected by the Covid-19 Pandemic**

		t-test for Equality of Means					
		Significance					
		t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference
Economic Sector	Equal variances assumed	0,138	15	0,446	0,892	0,76521	5,54657

Equal variances not assumed	0,142	14,324	0,444	0,889	0,76521	5,37825
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Source: SPSS Output, 2023

Based on the results of the independent sample t-test, it can be concluded that the growth of business credit in the affected and less affected economic sectors during the COVID-19 pandemic obtained a significance value (2-tailed) of 0.892, which is >0.05. This indicates that there is no significant difference in credit growth in the economic sectors affected and less affected during the COVID-19 pandemic, rejecting H6.

**Table 16 Descriptive Statistics on Independent Sample t-test by Economic Sector**

Impac Status		N	Mean	Std. Deviation	Std. Error Mean
Economic Sector	Less Affected	7	1,5246	10,12626	3,82736
	Affected	10	0,7594	11,94856	3,77847

Source: SPSS Output, 2023

The table presents the results of descriptive statistics on testing the difference in business credit growth in economically impacted and less impacted sectors during the Covid-19 pandemic. According to the Independent Sample t-test results, there is no significant difference. From the table above, it can be seen that there are 7 less impacted economic sectors with an average credit growth during the pandemic of 1.5% and 10 impacted economic sectors with an average growth of 0.76%. Although there is no significant difference, the credit growth in the less impacted sector is higher compared to the impacted economic sector.

Based on this description, Hypothesis 4 (H4) is accepted: During the Covid-19 pandemic, the growth of business credit disbursement to the impacted sector is smaller compared to the less impacted sector.

**The difference in business credit disbursement from banks in Indonesia before and during the pandemic, viewed from the business scale.**

The research results found a difference in business credit disbursement from banks in Indonesia before and during the pandemic, viewed from the business scale. Before the pandemic, the average growth of SME credit disbursement was 11.56%, and after the pandemic, the average growth was 5%. When compared with the growth of non-SME credit before the pandemic, which was 7.37%, and after the pandemic, it was 1.11%. This supports the statement that during the Covid-19 pandemic, the disbursement of credit to SMEs on a business scale was higher compared to the disbursement of credit to non-SME businesses.

This result aligns with the research by Beck and Keil (2022), which revealed an increase in credit disbursement to small businesses during the Covid-19 pandemic. This was due to the existence of the Paycheck Protection Program (PPP), which provided low-interest loans for payroll and business expenses. In addition to the PPP policy, there were also government-backed credit guarantee programs that provided opportunities for businesses to easily obtain loans and provided security for banks in disbursing credit.

In Indonesia, the SME sector received full support from the government in the form of a large budget for the National Economic Recovery Program (PEN), which was used for interest subsidies to ease interest payments by debtors, placement of funds for credit restructuring, payment of guarantee fees, and various other policies that support SME growth. This is in line with the research by Wong et al. (2022), stating that SME Credit Guarantee plays a key role in supporting bank loans to the most affected sectors in the post-pandemic period. Guaranteed loans supported by the state or funding for loan programs contribute to the growth of cheaper guarantee

programs associated with banks reporting looser lending standards and higher loan growth (Casanova et al., 2021).

Banks are currently driven to increase financing disbursement to the SME sector. This sector requires funding support to restart operations or even expand and increase production capacity. Despite its relatively small size, the contribution of the SME sector to the Indonesian economy is significant. SMEs are the backbone and engine of the national economy. This sector contributes more than half, or about 60%, of Indonesia's Gross Domestic Product (GDP). The number of SMEs reaches 99.9% of the total number of businesses in Indonesia. This sector also absorbs up to 97% of the total workforce in the country. Therefore, when SMEs are under pressure, the national economy is also affected. The government prioritizes the SME sector in the National Economic Recovery Program (PEN). Many policies and stimulus measures have been introduced to help this sector recover from the pressures of the Covid-19 pandemic. Saving SMEs is like saving the national economy. Banks are also encouraged to make various efforts to empower SMEs, both in financing, mentoring, and business development, so that SMEs can thrive.

The presence of SMEs in the national economy plays a very important role. Based on BI data, SMEs control 99.99% of the total market share of companies, or 65.5 million units, while large players with a total of 5,637 units only contribute 0.01%. Employment absorption by SMEs is very high, with 119.6 million employees, accounting for 96.92% of the total workforce. Whereas large companies employ 2.81 million people, or 3.08% of the total workforce. In addition, the contribution of SMEs to Gross Domestic Product (GDP) is also high, reaching 57.1%.

Recognizing the potential of SMEs, in early September 2021, BI officially issued Bank Indonesia Regulation (PBI) Number 11.23/13/PBI/2021 regarding Macro Prudential Conservative Financing Ratios (IMPR) for Commercial Banks, Sharia Banks, and Sharia Business Units. This regulation was created with the aim of increasing economic inclusivity and opening financial access, as well as enhancing the role of SMEs in national economic recovery. According to the new rules, banks are obliged to provide loans to the SME sector and low-income communities by at least 20% starting from June 2022. The banking obligation to the SME sector will increase to 25% in 2023 and 30% in 2024. The goal is to expand financial inclusion to all communities, especially SMEs, and to expand banking partnerships for SMEs.

Rational choice theory can explain the choice of action taken by bureaucracy in formulating public policies. In formulating public policies, which is an instrument in solving public problems, the government must be able to choose actions that encompass efficiency principles, where efficiency is understood as cost-benefit analysis, minimizing costs and maximizing benefits. With various contributions from SMEs to Indonesia, where saving SMEs is considered to save the national economy because SMEs are the backbone of the economy, it is only fitting for the government to provide full support to SMEs. According to rational choice theory, the government will certainly save business units that make a significant contribution to the country. Therefore, in order to save SMEs, the government is implementing policies that support SMEs. One of the effects of this policy is the higher growth of SME credit disbursement during the pandemic.

### **The difference in business credit disbursement from banks in Indonesia before and during the pandemic, viewed from the characteristics of the industry.**

The research results found a difference in business credit disbursement from banks in Indonesia before and during the pandemic, viewed from the characteristics of the industry. There are 12 economically impacted sectors that have an average credit growth of 7.06%, while the impacted sector is -1.37%. It can be concluded that the pandemic-impacted sector received fewer credits compared to the less impacted economic sector. This is consistent with the research by Çolak and Öztekin (2021a), stating that banks worldwide are tightening lending standards, referring to uncertain economic prospects, specific industry problems, reduced risk tolerance, and other concerns, especially since most banks have not yet utilized loan stimulus programs.

The pandemic has caused a surge in borrower credit risk worldwide, causing banks to be more hesitant to disburse loans in this situation, resulting in a negative shock to loan growth. In general, the pandemic has led to a decrease in credit growth, even though there have been

stimulus measures and cash injection strategies implemented by the government to avoid disruptions in credit disbursement (Çolak and Öztekin, 2021).

The Covid-19 pandemic has had a significant impact on the Indonesian economy, ranging from changes in the global supply chain to a decrease in foreign investment in Indonesia. This decline is reflected in the slowed economic growth rate, decreasing from 5.02% in 2019 to 2.97% in 2020. The impact of the pandemic certainly varies for each sector. The deepest growth contraction occurred in the Transportation and Warehousing sector at -15.05%, Accommodation and Food and Beverage Provision at -10.26%, and the Company Services sector at -5.44%.

Financial institutions have tightened credit disbursement since the government announced Covid-19 cases in Indonesia on March 2, 2020. This is to anticipate the economic conditions and business risks arising from the impact of the pandemic. This risk is reflected in the increasing non-performing loan (NPL) ratio amid the Covid-19 pandemic. Therefore, several major banks continue to develop credit disbursement strategies and maintain reserve costs. Based on the theory of rational choice, individuals/entities tend to choose actions that can maximize their utility or satisfy their desires and needs, in other words, maximize profits and minimize costs. In this case, banks strive to continue recording positive performance by applying caution principles in disbursing credit to avoid increasing the detrimental NPL ratio for the bank.

## CONCLUSION

Based on the research results, several conclusions are obtained as follows: During the Covid-19 pandemic, the disbursement of business credit to the SME sector on a business scale is higher compared to the disbursement of business credit to the non-SME sector. During the Covid-19 pandemic, the growth of business credit disbursement to the impacted sector is smaller compared to the less impacted sector

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