Risk Analysis of MSME and MSM Credit by Economic Sectors

Cundo Harimurti

Institute of Social Sciences and Management STIAMI, Jakarta, Indonesia
harimurti.cundo@gmail.com

Abstract

This study aims to analyse the credit risk of the Micro, Small, Medium Enterprises and Micro Small Medium sector by economic sector during the Covid-19 Pandemic. Time series research data for the period 2011-2020 from Indonesian Banking Statistics With the secondary data analysis method, it is known that the average non-performing loan for MSMEs and MSM for a period of 10 years according to the wholesale and retail sector is IDR 14.062 trillion, Construction of IDR 3.244 trillion, Processing Industry of IDR 2.908 trillion, Agriculture, Hunting and Forestry of IDR 2.040 trillion, Real Estate, Rental Business, and Corporate Services are amounting to IDR 1.334 trillion, Transportation, Warehousing and Communication of IDR 1.145 trillion, Social, Cultural, Entertainment and Other Personal Services of IDR 1.089 trillion, Accommodation, Food and Beverage of IDR 904 billion, Mining and Quarrying of Rp. 431 billion, Financial Intermediaries IDR 303 billion, Fisheries of IDR 190 billion, Health Services and Social Activities of IDR 127 billion, Electricity, Gas, and Water of IDR 78 billion, Education Services of IDR 52 billion, Individual Services Serving Households of IDR 44 billion. One of the reasons for the increase in non-performing loans for MSMEs and MSMs is the weak economic activity resulting from the COVID-19 pandemic, which has triggered a decrease in credit demand and has pushed up non-performing loans due to the decline in the ability to pay from MSME and MKM actors.

I. Introduction

Along with the uncertainty of the end of the COVID-19 pandemic, which severely hit business activities, especially the SME and MSM sectors, the potential for an increase in credit risk needs serious attention from regulators and SME and MKM players. One of the reasons for this potential increase in credit risk is the weak economic activity resulting from the COVID-19 pandemic, which has triggered a decrease in credit demand and has led to an increase in non-performing loans due to the decline in debtor's ability to pay (OJK, 2020).

The expansion of banking growth is followed by the increasing number of risks that must be faced by banks. In line with the external conditions of banking, which are increasingly disturbed by threatening risks, Bank Indonesia requires every bank to have an integrated risk management system. As an intermediary financial institution, implementing risk management is very important for banks to reduce losses. Maximum risk management for the bank can ensure that the bank will be safe from destruction in a bad situation. With the increasingly complex risks in the banking industry, good corporate governance practices are needed. These efforts are made to avoid a banking crisis in the future (Yoseph, 2019).

The Micro, Small, and Medium Enterprises (MSMEs) and Micro, Small, and Medium (MKM) sectors are the sectors most affected by the COVID-19 pandemic. Sihombing (2020) state that Covid-19 pandemic caused everyone to behave beyond normal limits as usual. The outbreak of this virus has an impact especially on the economy of a nation and Globally (Ningrum, 2020). The problems posed by the Covid-19 pandemic which have become a global problem have the potential to trigger a new social order or reconstruction (Bara, 2021). This epidemic has disrupted supply and demand as well as supply chains so that the wheels of the economy at the MSME and MSM levels have stalled. At least, there are more than 64 million MSME and MSM units that contribute 97 percent of the total workforce and 60 percent of the national GDP. This number shows the huge role of MSMEs and MSMs in the national economy. Therefore, if half of MSMEs and MSMs go out of business, it is feared that it will have a significant impact on the national economy (bisnis.com, 2020).
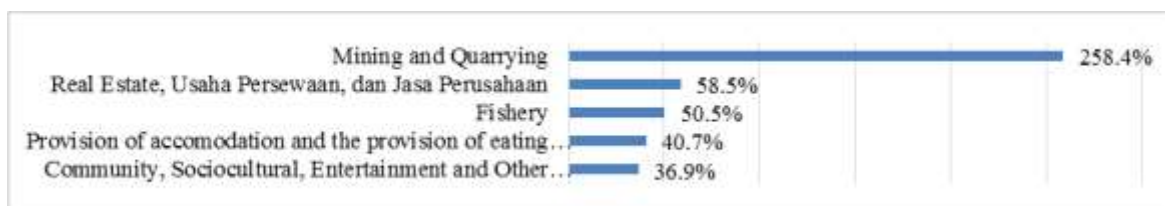

Figure 1. *The Top Five NPL Growth of MSMEs and MSMs by Economic Sector in 2020*
Source: Economic Sector MSME Credit in Indonesian Banking Statistics April 2021,
Processed

Credit risk is a loan that is being restructured. It has the potential to be downgraded or become a non-performing loan if the debtor is unable to pay the instalments. In 2020, the growth of MSME and MSM NPLs, according to the Economic Sectors, is very worrying, where the MSME and MSM NPL growth for the Mining and Excavation sector is 258.4 percent, the Real Estate sector, Leasing Business, and Corporate Services sector is 58.5 percent, Fishery is 50.5 percent, the Accommodation, Food, and Beverage sector is 40.7 percent, the Community Services, Social Culture, Entertainment, and Other Personal Services sector is 36.9 percent.

The fundamentals of the banking sector have been one of the most affected by the pandemic, starting from the lending derivatives to the depressed NIM due to the relaxation of interest rates. According to JP Morgan's Executive Director, Head of Indonesia Research and Strategy, Henry Wibowo, conditions also contributed to the sentiment for the movement of banking stocks which experienced a deep correction, although there were still some supporting sentiments originating from the acquisition plan in the banking sector (CNBC Indonesia, 2020).

The rate of non-performing loans (NPL) of large banks continues to increase during the Covid-19 pandemic. Therefore, some large banks continue to set strategies to extend credit and increase reserve costs, thus impacting the bank's performance in net printing profit (Sitanggang & Dewi, 2020).
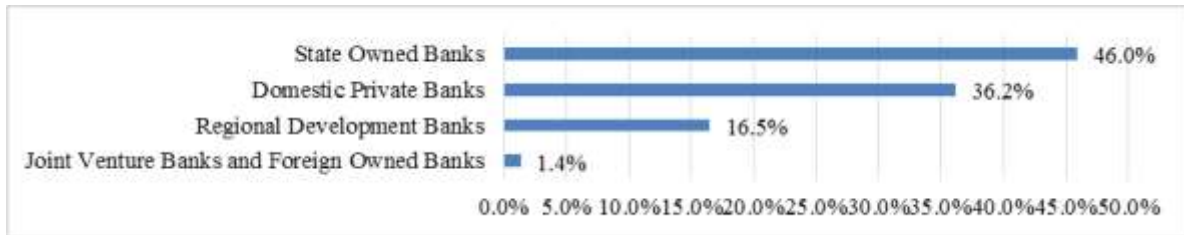
Figure 2. *NPL Composition of MSME and MSM by Bank Group*
Source: MSME Bank Group in Indonesian Banking Statistics April 2021, processed

NPL of big banks in 2020 reached IDR 38.953 trillion, consisting of state-owned banks amounting to IDR 17.902 trillion (46%), national private banks of IDR 14.097 trillion (36.2%), Regional Development Banks (BPD) of IDR 6.426 trillion (16.5%), foreign and joint venture banks of IDR 528 billion.

In general, the increase in NPLs also occurred in almost all economic sectors influenced by the increasingly depressed global and domestic economic conditions due to the COVID-19 pandemic, which weakened all business activities (OJK, 2020).

II. Review of Literature

A bank is a commercial bank referred to in Act Number 7 of 1992 concerning Banking as amended by Act Number 10 of 1998, including branch offices of banks domiciled abroad, which carry out conventional business activities (OJK, 2016).

Credit Risk is Risk due to failure of other parties to fulfil obligations to the Bank, including Credit Risk due to debtor failure, Credit concentration risk, counterparty credit risk, and settlement risk (OJK, 2016). A non-Performing Loan (NPL) is a condition where the customers cannot pay part or all of their obligations to the bank as agreed.

The banking risk management process in controlling credit risk is following risk identification techniques, dimensions of risk measurement and evaluation, risk management alternatives, and produces findings, such as the existence of appropriate credit analysis, the presence of highly skilled human resources, the existence of an information system and adequate database management. However, it is not yet effective because the level of NPL is experiencing fluctuating conditions. The decrease of the NPL level in 2013 was due to the banking risk management process in controlling credit risk and the settlement of non-performing loans, while the increase in the NPL level in 2014 was due to an increase in the price of fuel oil (BBM) which affected the Indonesian economy. The advice given is to maintain the achievement of the results of the banking risk management process in controlling credit risk and settlement of non-performing loans, as well as to intensify lending that is more focused on debtors who are considered to have the ability to repay loans, it can be seen from the principles of lending that are well fulfilled, in when there is an increase in fuel prices (Dewi, 2020).

Khotimah's research (2014) stated that the development of the NPL ratio for April 2012 - March 2013 in the MSME sector was highest in loans disbursed by regional government banks, then state-owned banks, and the lowest NPLs is from national private banks. The highest NPL ratio for the MSM Sector is in loans disbursed by state-owned banks, national private banks, and the lowest NPLs at regional government banks (Khotimah, 2014). Meanwhile, according to the research by Astuty, Supiyanto, & Adi (2020), the average NPL level from January to March 2020 was 3.8% (very healthy), from April to June 2020 was 6.79 %, and in July 2020 was 6.34%. It illustrates that the pandemic has impacted the capital turnover of Small and Micro Enterprises, so that

management and employees are very selective in providing business loans (Astuty, Supiyanto, & Adi, 2020).

III. Research Method

The data used in this study is secondary data for the time series for the period 2011-2020 (10 years) sourced from Indonesian Banking Statistics April 2021, which is downloaded on the website www.ojk.go.id. The objects studied are MSME and MSM NPLs by Economic Sector in 2011-2020, as shown in the following table:

Table 3. *Non-Performing Loan* (NPL) MSME and MSM according to Economic Sector 2012-2020 (Billion IDR.)

No	Economic Sector	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
1.	Agriculture, Hunting and Forestry	892	1.492	1.615	2.146	2.520	2.587	2.424	2.073	2.325	2.321	20.395
2.	Fishery	161	163	171	157	180	150	192	171	220	331	1.897
3.	Mining and Quarrying	89	153	184	258	429	306	1.116	272	327	1.172	4.306
4.	Processing industry	1.998	1.798	1.736	2.140	2.759	3.177	3.122	3.292	4.396	4.661	29.079
5.	Electricity, Gas and Water	49	14	22	26	99	72	168	135	101	99	784
6.	Construction	1.324	1.497	1.865	2.990	3.197	3.277	3.594	3.947	5.155	5.592	32.438
7.	Wholesale and Retail Trade	7.471	8.458	10.621	13.004	15.125	16.555	17.498	17.170	17.774	16.942	140.618
8.	Provision of accomodation and the provision of eating and drinking	352	303	357	550	764	1.101	1.097	1.193	1.379	1.940	9.036
9.	Transportation, Warehousing and Communication	452	485	654	964	1.292	1.303	2.628	1.171	1.203	1.297	11.449
10.	*Financial intermediaries*	92	161	377	447	339	355	438	336	245	244	3.035
11.	*Real Estate, Business, Ownership, and Business Services*	629	689	881	1.189	1.477	1.400	1.422	1.495	1.609	2.551	13.343
13.	Education Services	23	22	39	47	53	74	60	60	75	65	518
14.	Health Services and Social Activities	233	99	72	122	84	112	93	120	200	139	1.274

No.	Sector											Total
15.	*Community, Sociocultural, Entertainment and Other Individual Services*	619	891	876	1.052	1.407	1.164	1.267	923	1.136	1.555	10.890
16.	*Individual Services which Serve Households*	36	40	33	52	52	55	43	48	51	30	440
	Total	14.420	16.266	19.505	25.145	29.775	31.688	35.162	32.406	36.196	38.939	279.501

Source: Economic Sector MSME Credit in Indonesian Banking Statistics April 2021, processed

The method used in this study is the Secondary Data Analysis method, a research strategy that utilizes existing quantitative data to find new problems (Heaton, 2004) (Andrews, Higgins, Andrews, & Lalor, 2012).

The population used in this study is the entire NPL SME and MSM time series data by economic sector for the 2011-2020 period. The sample used is the whole population of NPL SME and MKM by economic sector for the period 2011-2020 based on data on MSME Credit for the Economic Sector in Indonesian Banking Statistics April 2021.

***Figure 3.** Research Stages*

The stages in this research start from the research background to describe problems related to MSME and MKM credit risk according to the economic sector. The second stage is a literature review to examine the suitability of this study with previous research. The third stage is to collect secondary data obtained from the website www.ojk.go.id. It was then analysed using secondary data analysis techniques to get research conclusions as to the basis for policy recommendations related to MSME and MSM credit risks by the economic sector.

IV. Results and Discussion

4.1 Results

The development of Non-Performing Loans for MSMEs and MSMs by economic sector during 2011-2020, as shown in Figure 4.1 to 4.15, are as follows:
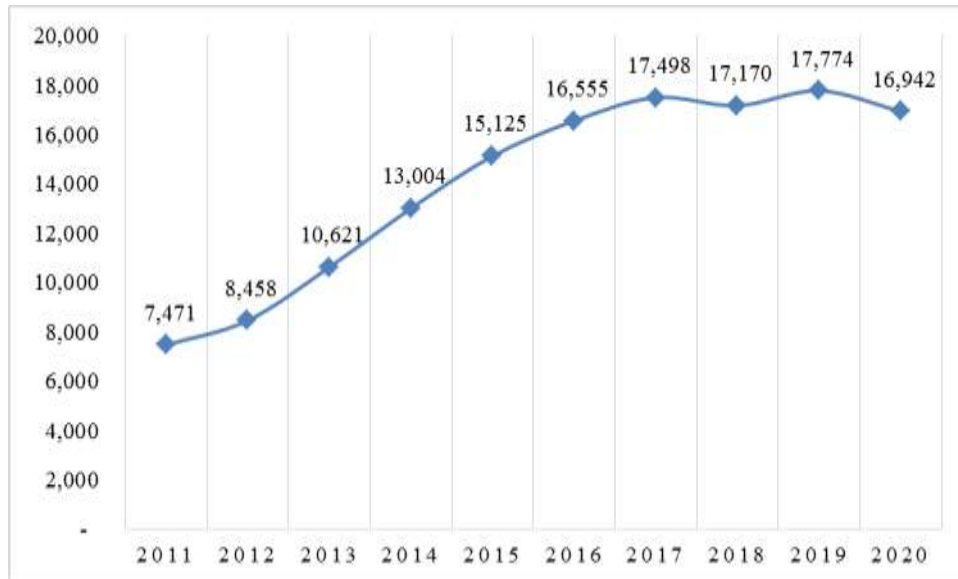
Figure 5. NPL Development of MSMEs and MSMs in the Wholesale and Retail Sector 2011-2020 (Billion IDR)
Source: Economic Sector MSME Credit in Indonesian Banking Statistics April 2021, processed

The NPL of MSMEs and MSM in the wholesale and retail sector (Figure 4.1) during 2011 to 2020 experienced an increase in NPL from year to year. In 2011 the NPL of MSME and MSM in the wholesale and retail sector was IDR 7,471. In 2012, it increased 13.2 percent to IDR 8.458 trillion. In 2013, it increased by 25.6 percent to IDR 10.621 trillion. In 2014, it increased by 22.4 percent to IDR 13.004 trillion. In 2015, it increased by 16.3 percent to IDR 15.125 trillion. In 2016, it increased 9.5 percent to IDR 16.555 trillion. In 2017, it increased by 5.7 percent to IDR 17.498 trillion. In 2018, it decreased by 1.9 percent to IDR 17.170 trillion. In 2019, it increased by 3.5 percent to IDR 17.774 trillion. Then, in 2020, the NPL of MSMEs and MSM in the wholesale and retail trade sector decreased by 4.7 percent to IDR 16.942 trillion.
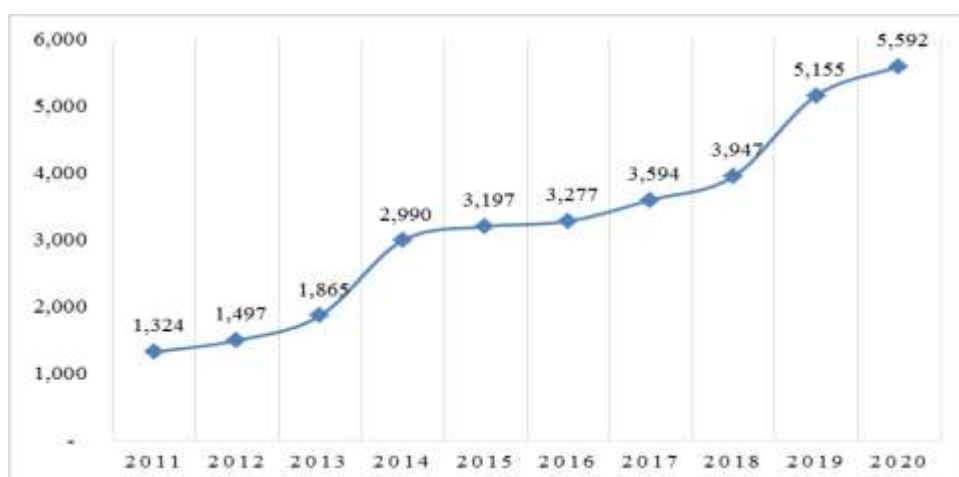
Figure 6. NPL Development of MSME and MSM Construction Sector 2011-2020 (Billion IDR)
Source: Economic Sector MSME Credit in Indonesian Banking Statistics April 2021, processed

The NPL of MSMEs and MSMs in the Construction sector (Figure 4.2) has increased from year to year during 2011-2020. In 2011, the NPL of MSMEs and MSMs in the Construction sector was IDR 1.324 trillion. In 2012, it increased by 13.0 percent to IDR 1.497 trillion. In 2013, it increased by 24.6 percent to IDR 1.865 trillion. In 2014, it increased by 60.4 percent to IDR 2.990 trillion. In 2015, it increased 6.9 percent to IDR 3.197 trillion. In 2016, it increased by 2.5 percent to IDR 3.277 trillion. In 2017, it increased 9.7 percent to IDR 3.594 trillion. In 2018, it increased 9.8 percent to IDR 3.947 trillion. In 2019, it increased 30.6 percent to IDR 5.155 trillion. Then, in 2020, the NPL of MSMEs and MSMs in the Construction sector increased by 8.5 percent to IDR 5.592 trillion.

The NPL of MSME and MSM in the manufacturing sector (Figure 4.3) in 2011 was IDR 1.998 trillion. In 2012, there was a decrease of 10.0 percent to IDR 1.798 trillion. Back down 3.5 percent in 2013 to IDR 1.736 trillion. In 2014, it increased by 23.3 percent to IDR 2.140 trillion. In 2015, it increased by 28.9 percent to IDR 2.759 trillion. In 2016, it increased 15.2 percent to IDR 3.177 trillion. In 2017, it decreased by 1.7 percent to IDR 3.122 trillion. In 2018, it increased again by 5.4 percent to IDR 3.292 trillion. In 2019, it increased 33.5 percent to IDR 4.396 trillion. Then, in 2020, the NPL of MSMEs and MSM in the Manufacturing sector increased by 6.0 percent to IDR 4.661 trillion.
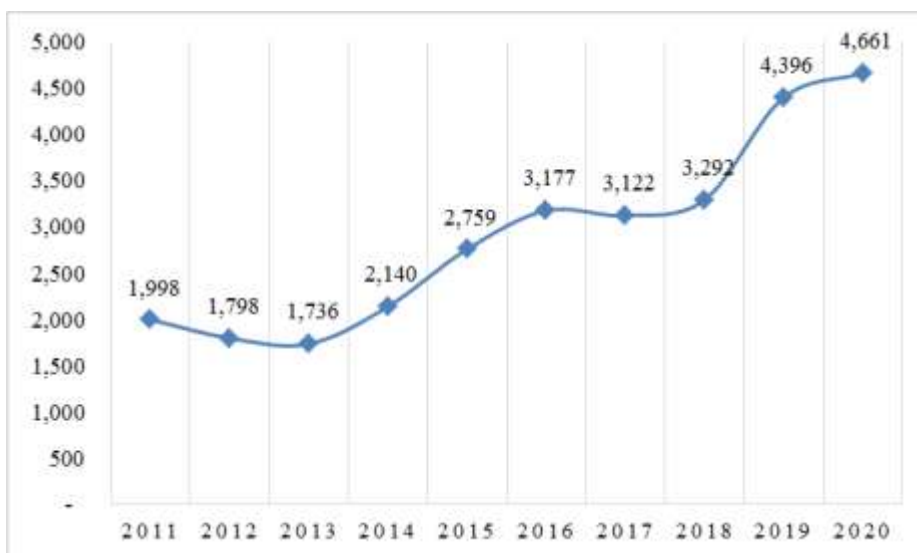

Figure 7. NPL Development of MSME and MSM Manufacturing Sector 2011-2020 (Billion IDR)
Source: Economic Sector MSME Credit in Indonesian Banking Statistics April 2021, processed

The NPL of MSMEs and MSM in the Real Estate, Leasing, and Corporate Services sectors (Figure 4.4) in 2011 was IDR 629 billion. In 2012, it increased 9.5 percent to IDR 689 billion. In 2013, it increased 27.9 percent to IDR 881 billion. In 2014, it increased 34.9 percent to IDR 1.189 trillion. In 2015, it increased by 24.1 percent to IDR 1.477 trillion. In 2016, it decreased by 5.2 percent to IDR 1.400 trillion. In 2017, it increased 1.6 percent to IDR 1.422 trillion. In 2018, it increased by 5.1 percent to IDR 1.495 trillion. In 2019, it increased 7.6 percent to IDR 1.609 trillion. Then, in 2020, the NPL of MSMEs and MSM in the Real Estate, Rental Business, and Corporate Services sector increased 58.5 percent to IDR 2.551 trillion.
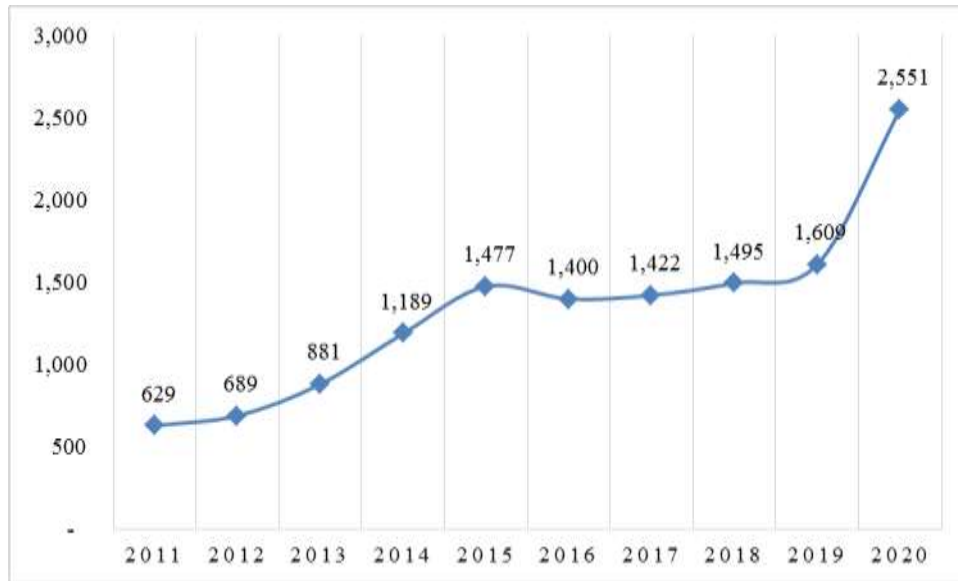
Figure 8. *NPL Development of MSME and MSM in Real Estate Sector, Leasing Business, and Corporate Services 2011-2020 (Billion IDR)*
Source: Economic Sector MSME Credit in Indonesian Banking Statistics April 2021, processed
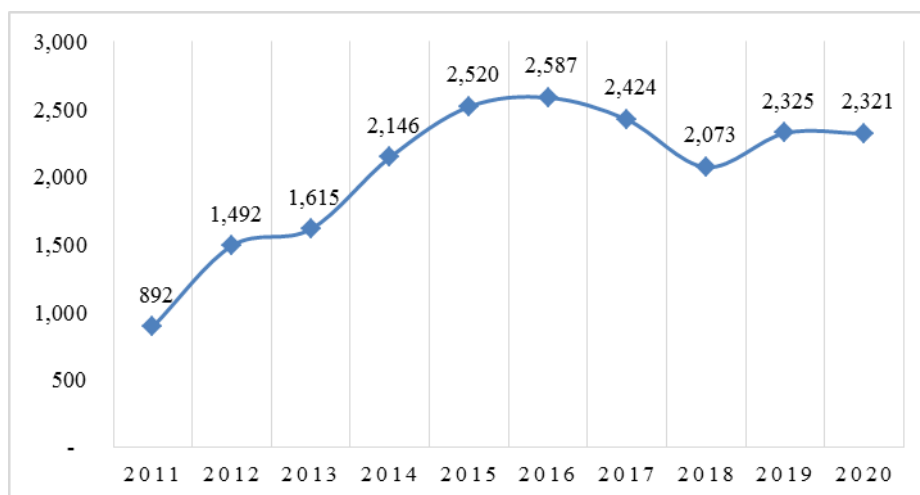

Figure 9. *NPL Development of MSMEs and MSM in Agriculture, Hunting and Forestry Sector 2011-2020 (Billion IDR)*
Source: Economic Sector MSME Credit in Indonesian Banking Statistics April 2021, processed

The NPL for MSMEs and MSM in the Agriculture, Hunting, and Forestry sectors (Figure 4.5) in 2011 was IDR 892 billion. In 2012, it increased 67.2 percent to IDR 1.492 trillion. In 2013, it increased 8.3 percent to IDR 1.615 trillion. In 2014, it increased 32.9 percent to IDR 2.146 trillion. In 2015, it increased by 17.4 percent to IDR 2.520 trillion. In 2016, it increased 2.7 percent to IDR 2.587 trillion. In 2017, it decreased by 6.3 percent to IDR 2.424 trillion. In 2018, it also decreased by 14.5 percent to IDR 2.073 trillion. In 2019, it increased by 12.2 percent to IDR 2.325 trillion. Then, in 2020, the NPL of MSMEs and MSM in the Agriculture, Hunting, and Forestry sectors decreased by 0.2 percent to IDR 2.321 trillion.
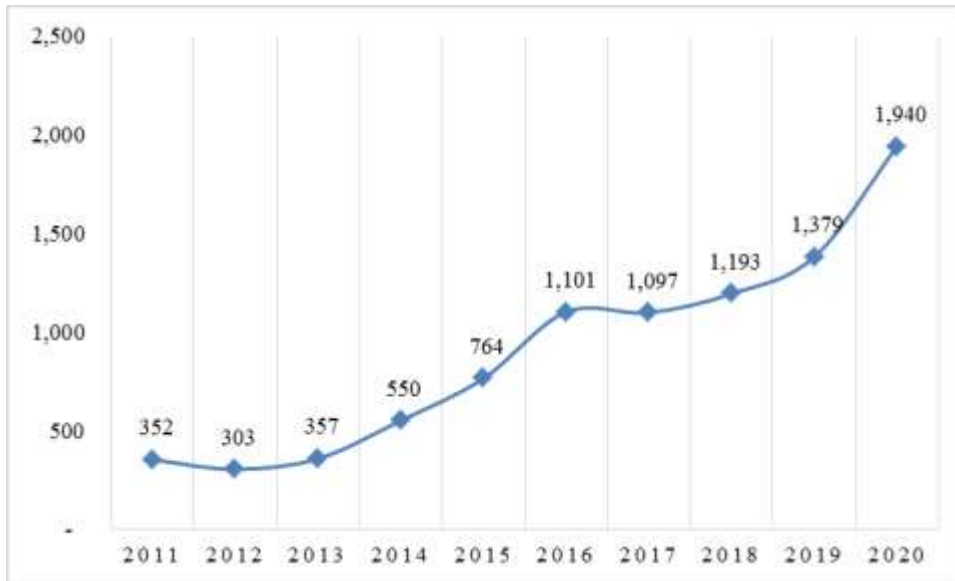
Figure 10. *NPL Development of MSMEs and MSMs in the Accommodation, Food,*
Beverage Sector 2011-2020 (Billion IDR)
Source: Economic Sector MSME Credit in Indonesian Banking Statistics April 2021,
processed

The NPL of MSMEs and MSMs in the Accommodation, Food, and Beverage sector
(Figure 4.6) in 2011 amounted to IDR 352 billion. In 2012, it decreased by 13.7 percent to
IDR 303 billion. In 2013, it increased by 17.8 percent to IDR 357 billion. In 2014, it
increased 54.0 percent to IDR 550 billion. In 2015, it increased 38.8 percent to IDR 764
billion. In 2016, it increased by 44.2 percent to IDR 1.101 trillion. In 2017, it decreased -
0.4 percent to IDR 1.097 trillion. In 2018, it increased by 8.8 percent to IDR 1.193 trillion.
In 2019, it increased by 15.6 percent to IDR 1.379 trillion. Then, in 2020, the NPL of
MSMEs and MSM sectors for the Accommodation, Food, and Beverage sector increased
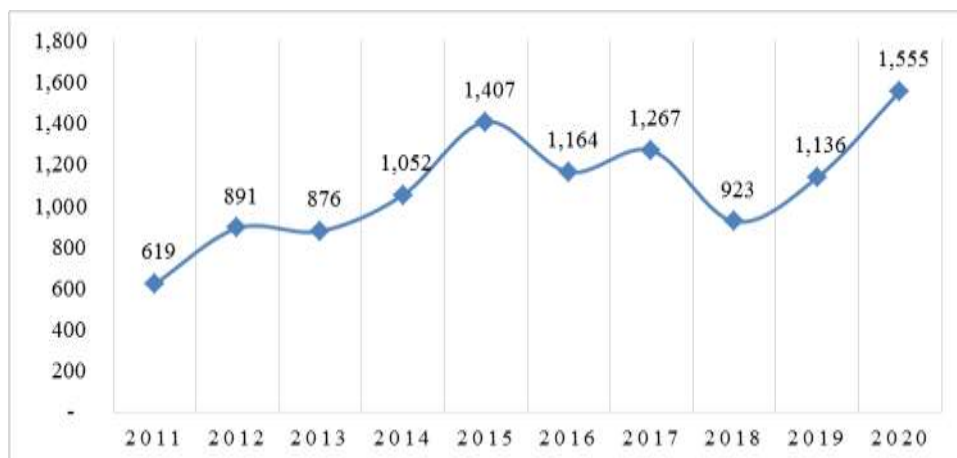by 40.7 percent to IDR 1.940 trillion.

Figure 11. *NPL Development of MSMEs and MKM in the Community Service, Socio-*
Cultural, Entertainment, and Other Individuals 2011-2020 (Billion IDR)
Source: Economic Sector MSME Credit in Indonesian Banking Statistics April 2021,
processed

The NPL for MSMEs and MKM in the Social, Cultural, Entertainment, and Other Personal Services sectors (Figure 4.7) in 2011 was IDR 619 billion. In 2012, it increased 43.9 percent to IDR 891 billion. In 2013, it decreased by 1.7 percent to IDR 876 billion. In 2014, it increased by 20.1% to IDR 1.052 trillion. In 2015, it increased 33.7% to IDR 1.407 trillion. In 2016, it decreased by 17.3 percent to IDR 1.164 trillion. In 2017, it increased 8.9 percent to IDR 1.267 trillion. In 2018, it decreased by 27.2 percent to IDR 923 billion. In 2019, it increased 23.1 percent to IDR 1.136 trillion. Then, in 2020, the NPL of MSMEs and MSM in the Social, Cultural, Entertainment, and Other Individual Services sector increased 36.9 percent to IDR 1.555 trillion.

The NPL of MSMEs and MKM in the transportation, warehousing, and communication sectors (Figure 4.8) in 2011 was IDR 452 billion. In 2012, it increased 7.3 percent to IDR 485 billion. In 2013, it increased 34.9 percent to IDR 654 billion. In 2014, it increased 47.5 percent to IDR 964 billion. In 2015, it increased 34.0 percent to IDR 1.292 trillion. In 2016, it increased 0.8 percent to IDR 1.303 trillion. In 2017, it increased by 101.7 percent to IDR 2.628 trillion. In 2018, it decreased by 55.4 percent to IDR 1.171 trillion. In 2019, it increased by 2.7 percent to IDR 1.203 trillion. Then, in 2020, the NPL of MSMEs and MSM in the Transportation, Warehousing, and Communications sector increased 7.8 percent to IDR 1.297 trillion.
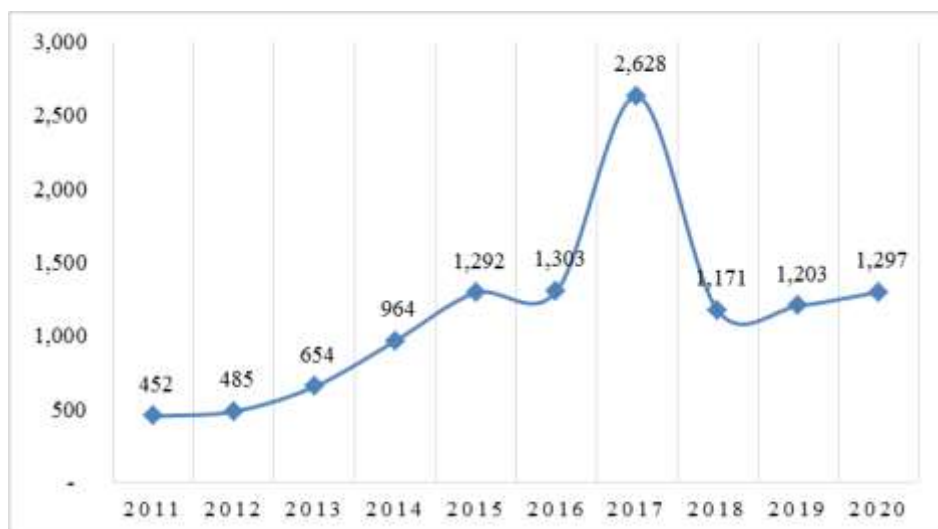

Figure 12. *NPL Development of MSMEs and MKM in the Transportation, Warehousing, and Communication Sector 2011-2020 (Billion IDR)*
Source: Economic Sector MSME Credit in Indonesian Banking Statistics April 2021, processed

The NPL of MSME and MSM in the Mining and Excavation sector (Figure 4.9) in 2011 was IDR 89 billion. In 2012, it increased 72.9 percent to IDR 153 billion. In 2013, it increased 20.1 percent to IDR 184 billion. In 2014, it increased 39.8 percent to IDR 258 billion. In 2015, it increased 66.3 percent to IDR 429 billion. In 2016, it decreased by 28.7 percent to IDR 306 billion. In 2017, it increased by 265.1 percent to IDR 1.116 trillion. In 2018, it decreased by 75.6 percent to IDR 272 billion. In 2019, it increased by 20.2 percent to IDR 327 billion. Then, in 2020, the NPL of MSMEs and MSMs in the Mining and Excavation sector increased by 258.4 percent to IDR 1.172 trillion.
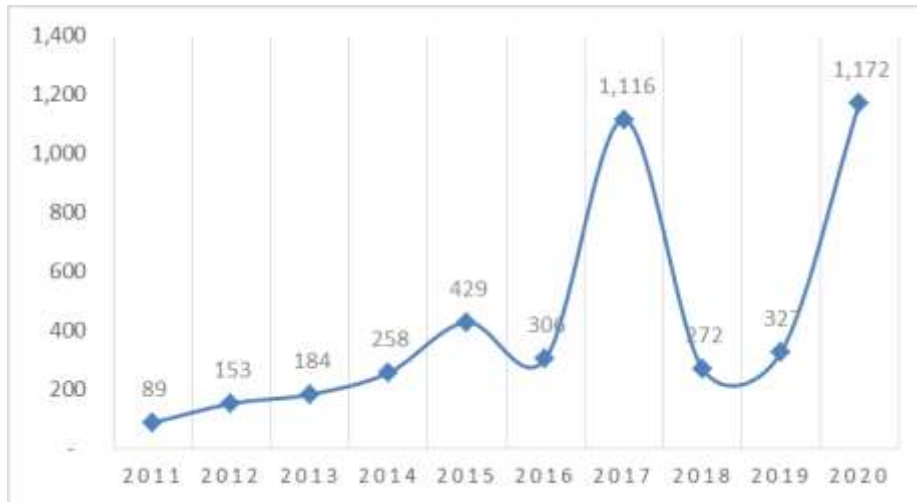
Figure 13. *NPL Development of MSMEs and MSMs in the Mining and Excavation Sector 2011-2020 (Billion IDR)*

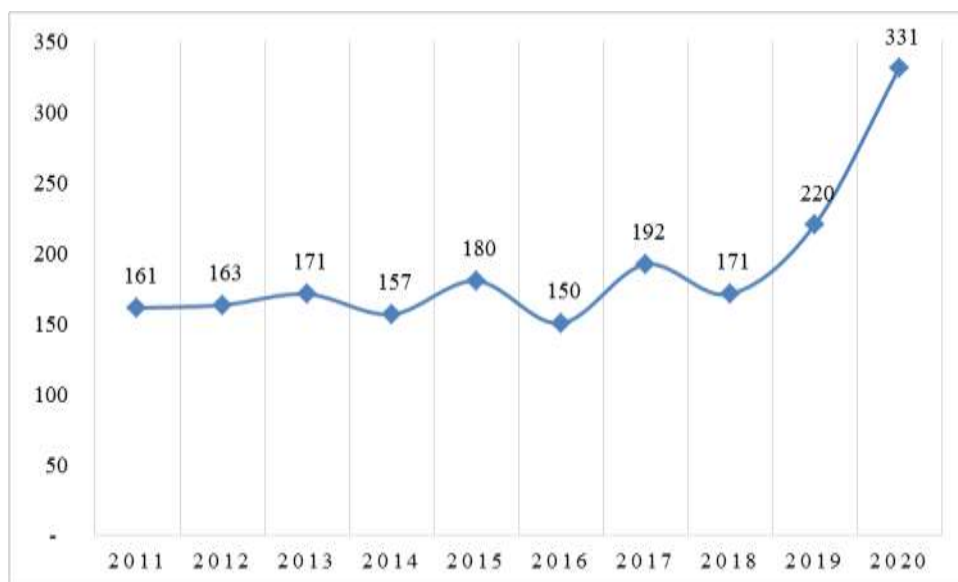Source: Economic Sector MSME Credit in Indonesian Banking Statistics April 2021, processed

Figure 14. *NPL Development of MSME and MKM in Fishery Sector 2011-2020 (Billion IDR)*

Source: Economic Sector MSME Credit in Indonesian Banking Statistics April 2021, processed

The NPL of MSME and MSM in the Fisheries sector (Figure 4.10) in 2011 was IDR 161 billion. In 2012, it increased 1.2 percent to IDR Rp. 163 billion. In 2013, it increased 4.8 percent to IDR 171 billion. In 2014, it decreased by -8.4 percent to IDR 157 billion. In 2015, it increased 15.1 percent to IDR 180 billion. In 2016, it decreased by 16.6 percent to IDR 150 billion. In 2017, it increased by 27.7 percent to IDR 192 billion. In 2018, it decreased by 10.9 percent to IDR 171 billion. In 2019, it increased by 28.7 percent to IDR 220 billion. Then, in 2020, the NPL of MSMEs and MSMs in the Fisheries sector increased by 50.5 percent to IDR 331 billion.
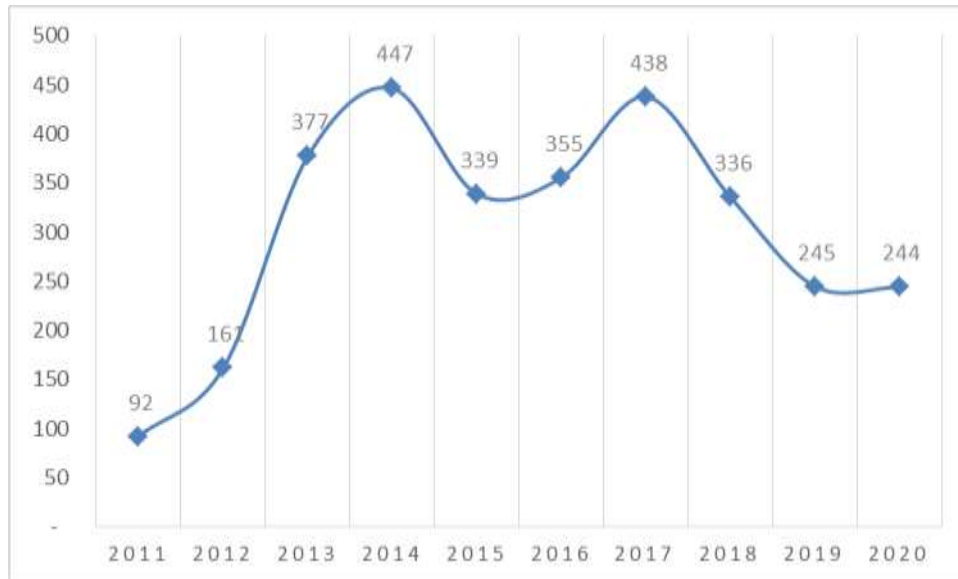
Figure 15. NPL Development of MSMEs and MSMs in the Financial Intermediary Sector 2011-2020 (Billion IDR)
Source: Economic Sector MSME Credit in Indonesian Banking Statistics April 2021, processed

The NPL of MSME and MSM in the Financial Intermediary sector (Figure 4.11) in 2011 was IDR. 92 billion. In 2012, it increased 75.3 percent to IDR 161 billion. In 2013, it increased 133.6 percent to IDR 377 billion. In 2014, it increased 18.4 percent to IDR 447 billion. In 2015, it decreased by 24.1 percent to IDR 339 billion. In 2016, it increased 4.8 percent to IDR 355 billion. In 2017, it increased by 23.3 percent to IDR 438 billion. In 2018, it decreased by 23.3 percent to IDR 336 billion. In 2019, it decreased 27.1 percent to IDR 245 billion. Then, in 2020, the NPL of MSMEs and MSM in the Financial Intermediary sector decreased by 0.4 percent to IDR 244 billion.
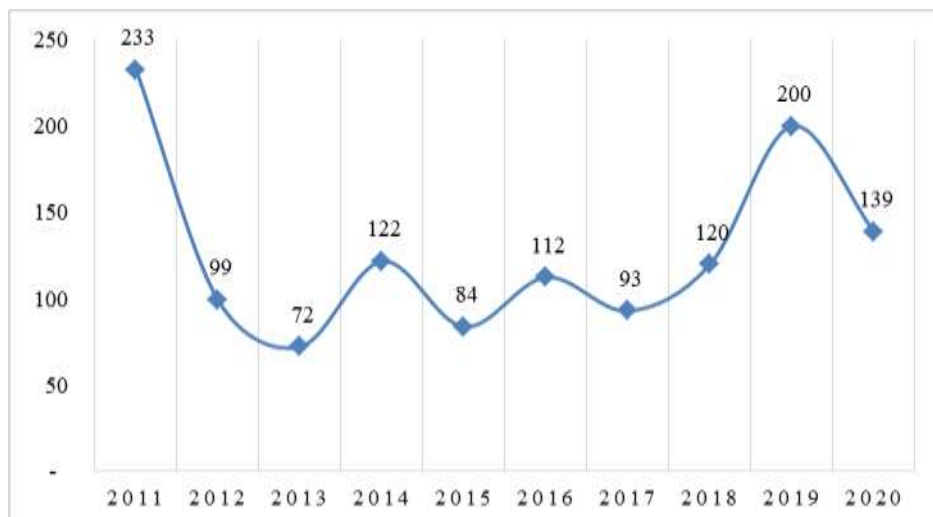

Figure 16. NPL Development of MSMEs and MSMs in the Health Services and Social Activities Sector 2011-2020 (Billion IDR)
Source: Economic Sector MSME Credit in Indonesian Banking Statistics April 2021, processed

The NPL of MSME and MSM in the Health Services and Social Activities sector (Figure 4.12) in 2011 amounted to IDR 233 billion. In 2012, it decreased by 57.3 percent to IDR 99 billion. In 2013, it decreased by 27.2 percent to IDR 72 billion. In 2014, it increased 68.7 percent to IDR 122 billion. In 2015, it decreased by 31.2 percent to IDR 84 billion. In 2016, it increased 34.3 percent to IDR 112 billion. In 2017, it decreased by 17.3 percent to IDR 93 billion. In 2018, it increased by 29.0 percent to IDR 120 billion. In 2019, it increased 66.7 percent to IDR 200 billion. Then, in 2020, the NPL of MSMEs and MSM in the Health Services and Social Activities sector decreased by 30.5 percent to IDR 139 billion.

The NPL of MSME and MSM in the Electricity, Gas, and Water sector (Figure 4.13) in 2011 was IDR 49 billion. In 2012, it decreased 72.4 percent to IDR 14 billion. In 2013, it increased 63.3 percent to IDR 22 billion. In 2014, it increased 16.7 percent to IDR 26 billion. In 2015, it increased by 279.9 percent to IDR 99 billion. In 2016, it decreased by 27.4 percent to IDR 72 billion. In 2017, it increased by 134.8 percent to IDR 168 billion. In 2018, it decreased by 19.6 percent to IDR 135 billion. In 2019, it decreased by 25.2 percent to IDR. 101 billion. Then, in 2020, the NPL of MSMEs and MKM in the Electricity, Gas, and Water sector decreased by 2.0 percent to IDR. 99 billion.
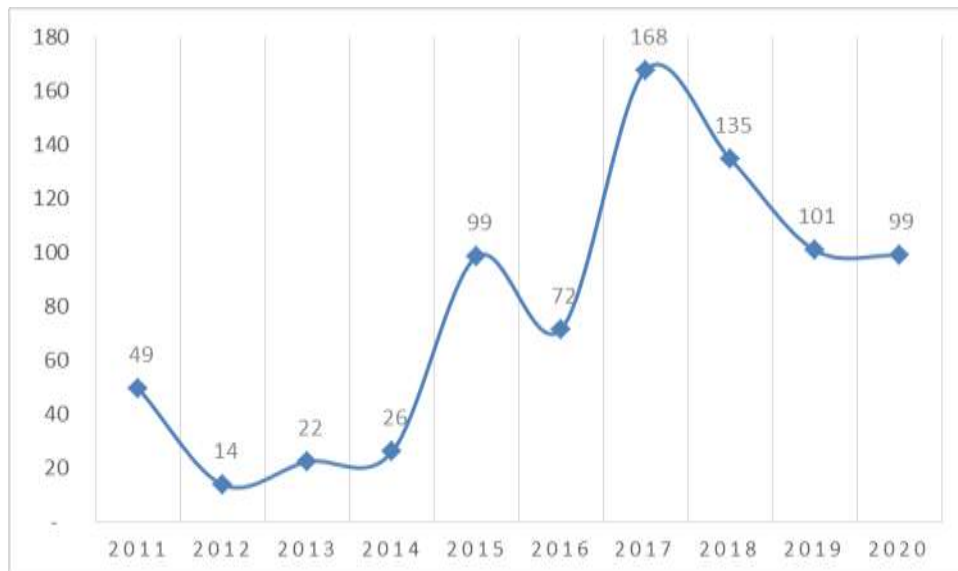

Figure 17. NPL Development of MSMEs and MSMs in the Electricity, Gas, and Water Sector 2011-2020 (Billion IDR)
Source: Economic Sector MSME Credit in Indonesian Banking Statistics April 2021, processed

The NPL of MSMEs and MSMs in the Education Services sector (Figure 4.14) in 2011 was IDR 23 billion. In 2012, it decreased by 4.7 percent to IDR 22 billion. In 2013, it increased 79.8 percent to IDR 39 billion. In 2014, it increased 18.6 percent to IDR 47 billion. In 2015, it increased 13.9 percent to IDR 53 billion. In 2016, it increased 38.6 percent to IDR 74 billion. In 2017, it decreased by 18.6 percent to IDR 60 billion. In 2018, it remained IDR 60 billion. In 2019, it increased by 25.0 percent to IDR 75 billion. Then, in 2020, the NPL of MSMEs and MKMs in the Education Services sector decreased by 13.3% to IDR 65 billion.
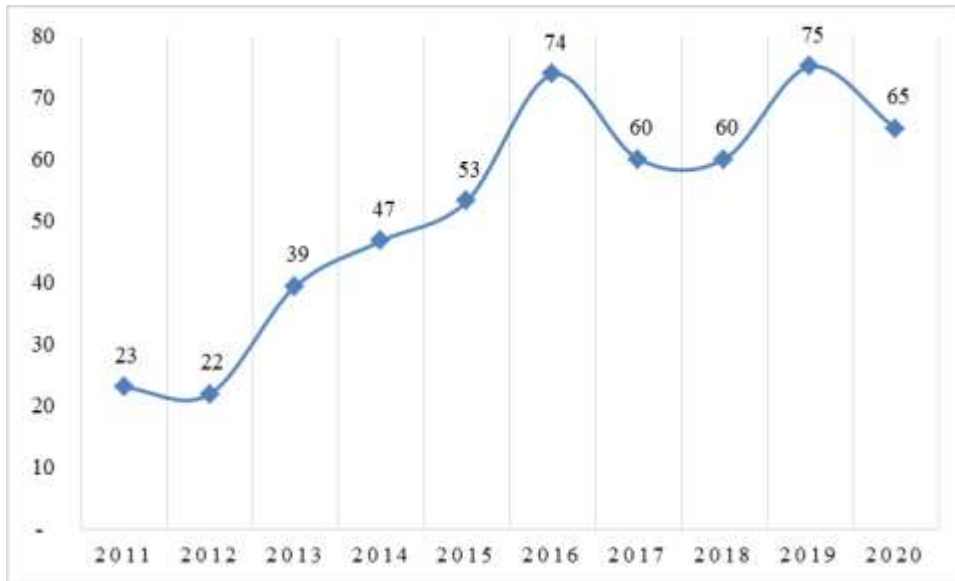
Figure 18. *NPL Development of MSMEs and MSM Education Services Sector 2011-2020 (Billion IDR)*
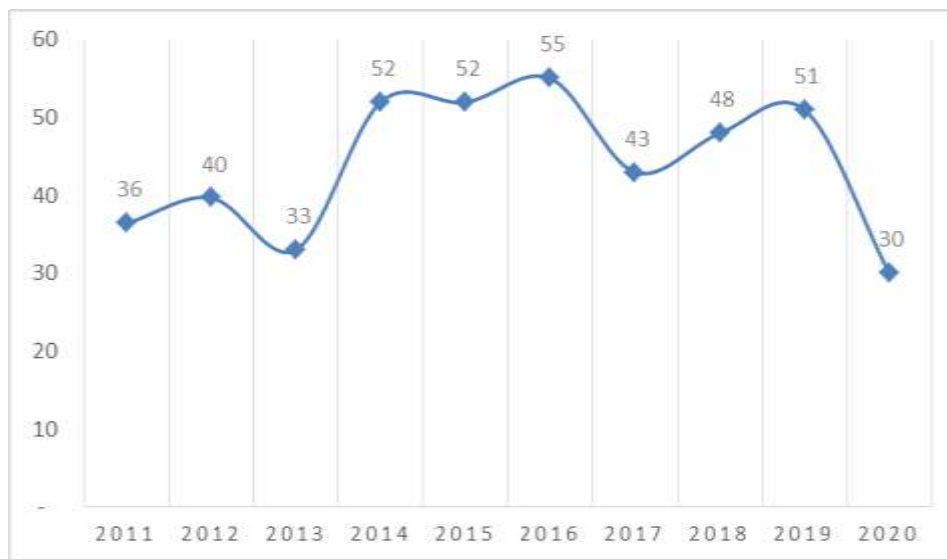Source: Economic Sector MSME Credit in Indonesian Banking Statistics April 2021, processed

Figure 19. *NPL Development of MSMEs and MSM Individual Services Sector Serving Households 2011-2020 (Billion IDR)*
Source: Economic Sector MSME Credit in Indonesian Banking Statistics April 2021, processed

The NPL of MSMEs and MSMs in the Individual Services sector that Serves Households (Figure 4.15) in 2011 amounted to IDR 36 billion. In 2012, it increased 9.0 percent to IDR 40 billion. In 2013, it decreased 16.8 percent to IDR 33 billion. In 2014, it increased 57.5 percent to IDR 52 billion. In 2015, it remained IDR 52 billion. In 2016, it increased by 5.9 percent to IDR 55 billion. In 2017, it decreased by 21.9 percent to IDR 43 billion. In 2018, it increased by 11.6 percent to IDR 48 billion. In 2019, it increased 6.3 percent to IDR 51 billion. Then, in 2020, the NPL of MSMEs and MSM in the Individual Services sector that Serves Households decreased by 41.2 percent to IDR 30 billion.
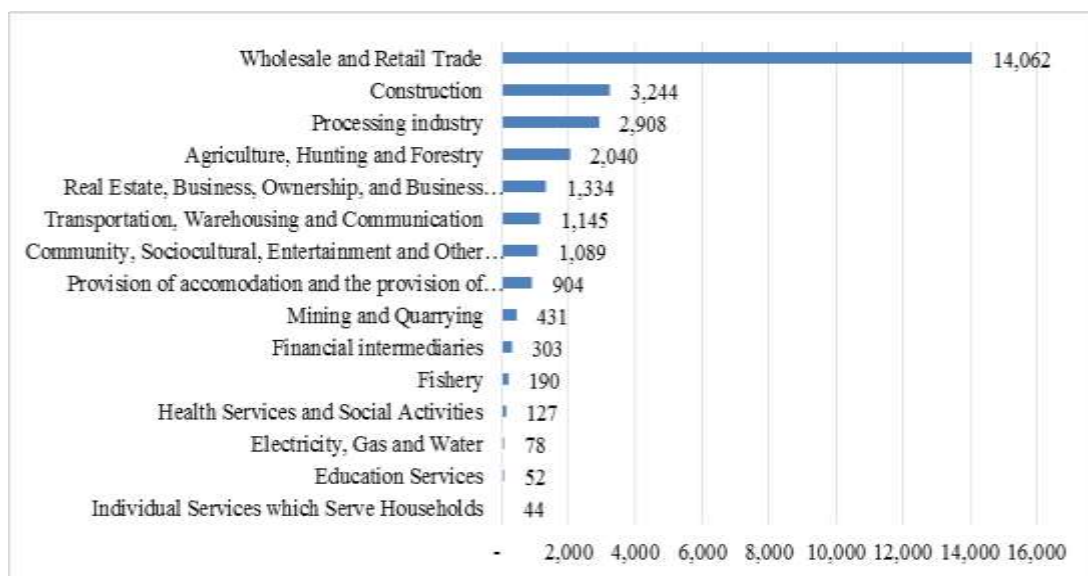
Figure 20. *Average NPL of MSME and MSM by Economic Sector in 2011-2020 (Billion IDR)*
Source: Economic Sector MSME Credit in Indonesian Banking Statistics April 2021, processed

The average NPL of MSMEs and MSM during 2011-2020 (Figure 4.16) has been sorted by sector that has the largest to the smallest average NPL:

Wholesale and Retail Trade Sector during 2011-2020 with an average NPL of IDR 14.062 trillion. In 2020, the NPL of MSMEs and MSMs in the wholesale and retail sectors decreased by 4.7 percent. The prominent increase was in the domestic wholesale trade sub-sectors other than exports and imports (except trade-in cars and motorcycles) and retail business (except cars and motorcycles), in line with slower credit growth in these two sub-sectors (OJK, 2020).

The construction sector during 2011-2020 with an average NPL of IDR 3.244 trillion. In 2020, the NPL of MSMEs and MKMs in the Construction sector increased by 8.5 percent. Restrictions on social interaction and gatherings of people in public places do various jobs, including construction work stop and temporarily delayed. Various policies and changes must be made to keep the construction sector running, given its essential role in driving the national economy.

The Manufacturing Industry Sector during 2011-2020 with an average NPL of IDR 14.062 trillion. In 2020, the NPL of MSMEs and MSM in the Manufacturing sector increased by 6.0 percent. The increase in NPLs occurred despite indications that the manufacturing sector's performance had improved compared to the previous year, although it was still in the contraction phase. This is reflected in the Indonesian Manufacturing Purchasing Managers' Index (PMI) in September 2020, which was 47.2, improving from the position in June 2020 of 39.1. The increase in NPL in the manufacturing sector mainly occurred in the sub-sector of the textile industry, machinery and equipment industry, and other electrical machinery and equipment industries (OJK, 2020).

Agriculture, Hunting and Forestry Sector during 2011-2020 with an average NPL of IDR 2.040 trillion. In 2020, the NPL of MSMEs and MKM in the Agriculture, Hunting, and Forestry sectors decreased 0.2 percent to IDR 2.321 trillion. It is because the Agriculture, Hunting, and Forestry sectors are stronger than other sectors. The multiplier effect, mainly from the agricultural sector, is felt by all sectors, which illustrates that the

agricultural sector is able to become one of the sectors that drive the economy during the COVID-19 pandemic.

Real Estate, Rental Business, and Corporate Services Sector during 2011-2020 with an average NPL of IDR 1.334 trillion. In 2020, the NPL of MSMEs and MKM in the Real Estate, Rental Business, and Corporate Services sector increased by 58.5 percent. This is because the high operating costs of the property business are not in line with income. It is because the level of property sales has decreased due to the slowdown in the national economy.

The Transportation, Warehousing, and Communications Sector during 2011-2020 with an average NPL of IDR 1.145 trillion. In 2020, the NPL of MSMEs and MSM in the Transportation, Warehousing, and Communications sector increased by 7.8 percent. Restrictions on social interaction and human gatherings in public places make transportation, warehousing, and communication service activities stop and are temporarily suspended. This is the cause of the increase in NPL in the transportation, warehousing, and communication sectors.

The Community Service, Socio-Cultural, Entertainment, and Other Personal Services Sector during 2011-2020 with an average NPL of IDR 1.089 trillion. In 2020, the NPL of MSMEs and MSM in the Community Services, Socio-Cultural, Entertainment, and Other Individual sectors increased by 36.9 percent. Restrictions on social interaction and human gatherings in public places make Community, Socio-Cultural, Entertainment, and Other Individual service activities stop and temporarily suspended. Various policies and changes must be made so that the Community Service, Socio-Cultural, Entertainment, and Other Personal Services sectors continue to run, given their important role in driving the national economy.

Accommodation, Food, and Beverage sector during 2011-2020 with an average NPL of IDR 904 billion. This is because sectors related to the Accommodation and Food and Beverage sectors, such as the Construction, Mining, and Excavation sector, Community Services, Social Culture, Entertainment, and Other Individuals, Transportation, Warehousing, and Communication, Processing Industries, have stopped and are temporarily suspended as a result of from restrictions on social interaction and human gatherings in public places.

Mining and Excavation Sector during 2011-2020 with an average NPL of IDR 431 billion. In 2020, the NPL of MSMEs and MSMs in the Mining and Excavation sector increased by 258.4 percent. The impact of the Covid-19 pandemic is the main reason for the decline in investment in the Mining and Excavation sector, especially the mineral and coal sector (Minerba) (Umah, 2020).

The Financial Intermediary Sector during 2011-2020 with an average NPL of IDR 303 billion. In 2020, the NPL of MSMEs and MKM in the Financial Intermediary sector decreased by 0.4 percent. This was due to the credit and financing restructuring policy, which was realized until October 26, 2020, which reached IDR 932.4 trillion for 7.53 bank debtors. This amount consists of restructuring MSME loans of IDR 369.8 trillion for 5.84 million debtors and IDR 562.5 trillion for non-MSME debtors for 1.69 million debtors (Mola, 2020).

Fishery Sector during 2011-2020 with an average NPL of IDR 190 billion. In 2020, the NPL of MSMEs and MSMs in the Fisheries sector will increase by 50.5 percent. Restrictions on social interaction and human gatherings in public places have forced countless workers, who normally work long hours in fishing operations, to stop working to prevent the spread of Covid-19 (UNAIR, 2021).

The Health Services and Social Activities Sector during 2011-2020 has an average NPL of IDR 127 billion. In 2020, the NPL of MSMEs and MSM in the Health Services and Social Activities sector decreased by 30.5 percent. During the Covid-19 pandemic, there was a change in health awareness behaviour in the community so that various health-related products such as drugs, hand sanitizers, and so on increased (Julita, 2021).

The electricity, Gas, and Water sectors during 2011-2020 have an average NPL of IDR 78 billion. The Covid-19 pandemic has caused some economic activities to be disrupted, such as industry, trade, transportation, tourism, and other sectors. Of course, the cessation of economic activity has a negative impact on households (RT) and the business world (corporations) (Kontan.co.id, 2020).

Education Services Sector during 2011-2020 has an average NPL of IDR 52 billion. In 2020, the NPL of MSMEs and MSMs in the Education Services sector decreased by 13.3%. It is because, even though restrictions on social interaction and human gatherings in public places are implemented, educational services and education continue to run even though they are online or learning from home.

Individual Services Serving Households sector during 2011-2020 with an average NPL of IDR 44 billion. In 2020, the NPL for MSMEs and MSM in the Personal Services sector that Serves Households decreased by 41.2 percent. The increase was mainly driven by the household sub-sectors for housing ownership and motor vehicle ownership in line with slowing credit in these two sub-sectors. The increase in NPLs in this sub-sector was influenced, among other things, by the decline in debtors' ability to pay due to the COVID-19 pandemic, which hit economic activity and reduced people's income (OJK, 2020).

V. Conclusion

The increase in non-performing loans for MSMEs and MSM was influenced by weakening economic activity due to the COVID-19 pandemic, which triggered a decline in credit demand and encouraged an increase in non-performing loans for MSMEs and MSM due to the decline in bad loans ability to pay MSME and MSM actors in the 1) Wholesale and Retail Trade sector, 2) Construction sector, 3) Manufacturing Industry sector, 4) Agriculture, Hunting and Forestry sector, 5) Real Estate, Rental Business, and Corporate Services sector, 6) Transportation, Warehousing, and Communication sector, 7) Community Services, Socio-Cultural, Entertainment, and Other Individuals sector, 8) Accommodation, Food, and Beverage sector, 9) Mining and Excavation sector, 10) Financial Intermediary sector, 11) Fishery sector, 12) Health and Social Activities sector, 13) Electricity, Gas and Water sector, 14) Education Services sector, 15) Individual Services Serving Households sector during 2011-2020.

References

Andrews, L., Higgins, A., Andrews, M. W., & Lalor, J. G. (2012). Classic Grounded Theory to Analyse Secondary Data: Reality and Reflections. *The Grounded Theory Review, 11*(1), 12-26. Retrieved from http://groundedtheoryreview.com/2012/06/01/classic-grounded-theory-to-analyse-secondary-data-reality-and-reflections/

Astuty, H. S., Supiyanto, Y., & Adi, h. I. (2020). Analisa Kredit Wirausaha Yang Tergabung Dalam UKM KSPKP Tuban Ditinjau Dari NPL Era Pandemi Covid-19. *Jurnal Pendidikan Ekonomi, 5*(2), 31-34. doi:10.29100/jupeko.v5i2.1695

bisnis.com. (2020, Oktober 12). *Sektor UMKM Jadi Kunci Pemulihan Ekonomi Di Tengah Pandemi.* Retrieved from https://ekonomi.bisnis.com: https://ekonomi.bisnis.com/read/20201012/9/1303691/sektor-umkm-jadi-kunci-pemulihan-ekonomi-di-tengah-pandemi.

Bara, A., et.al. (2021). The Effectiveness of Advertising Marketing in Print Media during the Covid 19 Pandemic in the Mandailing Natal Region. Budapest International Research and Critics Institute-Journal (BIRCI-Journal) Vol 4 (1): 879-886.

CNBC Indonesia. (2020, Juni 12). *JP Morgan: Perbankan, Sektor Yang Paling Terdampak Covid-19.* Retrieved from www.cnbcindonesia.com: https://www.cnbcindonesia.com/market/20200612105516-19-164858/jp-morgan-perbankan-sektor-yang-paling-terdampak-covid-19

Dewi, P. M. (2020). Credit Insurance as an Effort to Overcome Bad Credit Risk in Modern Banking Economy in the Industrial Revolution 4.0 in Indonesia. *UNIFIKASI : Jurnal Ilmu Hukum, 7*(1), 88-95. doi:10.25134/unifikasi.v7i1.2702

Heaton, J. (2004). *Reworking Qualitative Data.* London: Sage Publications Limited.

Julita, L. (2021, Februari 5). *Di Tengah Pandemi, Ada Sektor yang Melesat Nyaris 11% di 2020.* Retrieved from www.cnbcindonesia.com: https://www.cnbcindonesia.com/news/20210205131656-4-221294/di-tengah-pandemi-ada-sektor-yang-melesat-nyaris-11-di-2020

Khotimah, N. (2014). Analisis Kredit Bermasalah Usaha Dan Non Usaha Mikro Kecil Menengah Pada Perbankan Indonesia. *Jurnal Ekonomi Bisnis, 19*(3), 49-62. Retrieved from https://ejournal.gunadarma.ac.id/index.php/ekbis/article/view/1168/1031

Kontan.co.id. (2020, April 15). *Sektor Kelistrikan di Tengah Covid-19.* Retrieved from www.kontan.co.id: https://analisis.kontan.co.id/news/sektor-kelistrikan-di-tengah-covid-19

Mola, T. (2020, November 26). *Stabilitas Jasa Keuangan Terjaga, OJK Dorong Intermediasi.* Retrieved from www.bisnis.com: https://ekonomi.bisnis.com/read/20201126/9/1322904/stabilitas-jasa-keuangan-terjaga-ojk-dorong-intermediasi

Ningrum, P.A., Hukom, A., and Adiwijaya, S. (2020). The Potential of Poverty in the City of Palangka Raya: Study SMIs Affected Pandemic Covid 19. Budapest International Research and Critics Institute-Journal (BIRCI-Journal) Vol 3 (3): 1626-1634.

OJK. (2016, Maret 22). *POJK Nomor 18/POJK.03/2016.* Retrieved from www.ojk.go.id: https://www.ojk.go.id/id/kanal/perbankan/regulasi/peraturan-ojk/Documents/Pages/POJK-Nomor-18.POJK.03.2016/SAL%20-%20POJK%20Manajemen%20Risiko%20.pdf

OJK. (2020, Desember 20). *Laporan Profil Industri Perbankan - Triwulan III 2020.* Retrieved from www.ojk.go.id: https://www.ojk.go.id/id/kanal/perbankan/data-dan-statistik/laporan-profil-industri-perbankan/Documents/Laporan%20Profil%20Industri%20Perbankan%20-%20Triwulan%20III%202020.pdf

OJK. (2021, Juli 25). *Statistik Perbankan Indonesia - April 2021.* Retrieved from www.ojk.go.id: https://www.ojk.go.id/id/kanal/perbankan/data-dan-statistik/statistik-perbankan-indonesia/Pages/Statistik-Perbankan-Indonesia---April-2021.aspx

Sihombing, E.H., and Nasib. (2020). The Decision of Choosing Course in the Era of Covid 19 through the Telemarketing Program, Personal Selling and College Image. Budapest International Research and Critics Institute-Journal (BIRCI-Journal) Vol 3 (4): 2843-2850.

Sitanggang, L. M., & Dewi, H. K. (2020, Oktober 29). *Laju NPL meningkat di tengah pandemi Covid-19, bank besar memupuk pencadangan.* Retrieved from keuangan.kontan.co.id: https://keuangan.kontan.co.id/news/laju-npl-meningkat-di-tengah-pandemi-covid-19-bank-besar-memupuk-pencadangan

Umah, A. (2020, November 1). *Sektor Tambang Babak Belur Dihantam Pandemi, Ini Buktinya.* Retrieved from www.cnbcindonesia.com: https://www.cnbcindonesia.com/news/20201111080022-4-200907/sektor-tambang-babak-belur-dihantam-pandemi-ini-buktinya

UNAIR. (2021, Juli 1). *Dampak Pandemi Covid-19 pada Sektor Perikanan Nasional.* Retrieved from news.unair.ac.id: http://news.unair.ac.id/2021/07/01/dampak-pandemi-covid-19-pada-sektor-perikanan-nasional/

Yoseph, D. (2019). Analisis Manajemen Risiko Pada Perusahaan Perbankan Yang Go Public. *BIP's: JURNAL BISNIS PERSPEKTIF, 10*(2), 161-174. doi:10.37477/bip.v10i2.40