

The Analysis of Covid-19 Effect on Life Insurance in Indonesia

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ABSTRACT. This study aims to analyze the effect of Covid-19 on the conventional life insurance industry in Indonesia. This used quantitative research methodology by comparing data on premium income, total net premium income, comprehensive income statement 6 months before the pandemic (July 2019 - December 2019) with 6 months during the pandemic (January 2020 - June 2020) obtained from published OJK reports. Data analysis was performed by implementing the Paired Sample T Test on the SPSS program. The result is that the premium income 6 months before the pandemic is 144,904,759.2 and 6 months during the pandemic is 46,502,463.6, the t test value is 34,618 and sig <0.05. The net premium income 6 months before the pandemic was 139,630,395.4 and 6 months during the pandemic was 43,304,818.98, the t-test value was 31,418 and sig <0.05. In the comprehensive income statement 6 months before the pandemic is 497,219.67 and 6 months during the pandemic is - 3,405,878.72, the t test value is 2.853 and sig <0.036. Based on this analysis, it is concluded that there has been a decrease in value and a significant difference 6 during the pandemic in premium income, total net premium income, comprehensive income statement compared to 6 months before the pandemic.

Keywords: *Impact, Pandemic, Life Insurance.*

1. INTRODUCTION

Every company is required to optimize its performance in order to compete and to be survive in every industry, including the life insurance industry in Indonesia [1]. Life insurance is a protection from financial loss by providing protection for future insurance [2] [3]. The growth of insurance industry assets in the last 5 years has shown an increase. As a non-bank financial institution, insurance has an important role in economic and social development in the risk of economic activity [4] [5]. The importance of insurance for economic development can be seen from the growth in premiums and assets in GDP [6]. Growth in life insurance can be seen from the annual premium and total assets in TABLE 1.

TABLE 1 shows that the growth of annual premium and total assets in life insurance continues to increase every year from 2014 to 2018. The growth of the insurance industry is expected to contribute to the Gross Domestic Product (GDP) [7]. The increase of the national premium will increase premium income, and then the premium income can increase profit (comprehensive income) which is the main goal of every business activity including life insurance.

In the early of 2020 the world was shocked by the presence of the Covid-19, a virus with a very rapid spread and became the highest cause of death in the world. Beside affecting public health, Covid-19 has also severely damaged economy [8]. Indonesia is among of countries that heavily affected by this virus. The outbreak of coronavirus has severely affected the global and Indonesia economy. Covid-19 has a complex impact on the economy in Indonesia. One of the measured indicators is the depreciation of the Indonesian currency against the USD and other foreign currencies along with the increase in the Covid-19 case. Another indicator was the IHSG decrease from the range of 6,000 to 4,000;

TABLE I. Total Annual Premium and Total Assets In Life Insurance 2014-2018

Description	2014	2015	2016	2017	2018
Annual Premium	115.15	135.37	164.46	175.25	189.32
Total Asset	368.06	378.03	451.03	546.64	555.38

Source: OJK Publication (in Trillion Rupiah)

before and after the outbreak respectively [9]. Research by Damuri et al in 2020 predicts that there will be a significant impact of Covid-19 which affects the Indonesian economy [10].

Several institutions even predict a weakening of the world economy, including the International Monetary Fund (IMF), which projects the global economy to grow by minus 3%. The impact of the Covid-19 outbreak on the economies of countries in the world is also enormous [11]. The Central Statistics Agency (BPS) noted that Indonesia's economic growth in the second quarter of 2020 was -5.32 percent. Thus, the cumulative economic growth in the first semester of this year was recorded to have contracted by 1.26 compared to the first semester of last year. Covid-19 outbreak cause international uncertainty and worries that surge day by day, also for insurance companies.

This study is aimed to analyze the impact of the Covid-19 pandemic on the growth of life insurance

in Indonesia by comparing premium income, total net premium income, comprehensive income statement with the 6 months before and during the Covid-19 pandemic.

2. METHODS

The research methodology this study is a comparative quantitative analysis method. The comparative method is used to compare premium income, total net premium income, comprehensive income statement that occurred 6 months before and during the Covid-19 pandemic outbreak. Data in this study is obtained from financial reports that had been published by OJK. In this study, the data analysis technique used was the Paired Sample Test with the SPSS Program which was used to determine whether there was a significant difference of two independent samples. The hypotheses are as follows:

TABLE II. Hypothesis Test Provisions with Sig

Sig	Results	Description
Sig>0.05	H_{01} accepted, H_{a1} rejected	There is no significant difference in premium income between the 6 months before and during the Covid-19 pandemic
Sig<0.05	H_{01} rejected, H_{a1} accepted	There is a significant difference in premium income between the 6 months before and during the Covid-19 pandemic
Sig>0.05	H_{02} accepted, H_{a2} rejected	There is no significant difference in total net premium income between the 6 months before and during the Covid-19 pandemic
Sig<0.05	H_{02} rejected, H_{a2} accepted	There is a significant difference in total net premium income between the 6 months before and during the Covid-19 pandemic
Sig>0.05	H_{03} accepted, H_{a3} rejected	There is no significant difference in the comprehensive income statement between the 6 months before and during the Covid-19 pandemic
Sig<0.05	H_{03} rejected, H_{a3} accepted	There is a significant difference in the comprehensive income statement between the 6 months before and during the Covid-19 pandemic

TABLE III. HYPOTHESIS TEST PROVISIONS WITH T

t	Results	Description
$t < 2.262$ 2	H_{01} accepted, H_{a1} rejected	There is no significant difference in premium income between the 6 months before and during the Covid-19 pandemic
$t > 2.262$ 2	H_{01} rejected, H_{a1} accepted	There is a significant difference in premium income between the 6 months before and during the Covid-19 pandemic
$t < 2.262$ 2	H_{02} accepted, H_{a2} rejected	There is no significant difference in total net premium income between the 6 months before and during the Covid-19 pandemic
$t > 2.262$ 2	H_{02} rejected, H_{a2} accepted	There is a significant difference in total net premium income between the 6 months before and during the Covid-19 pandemic
$t < 2.262$ 2	H_{03} accepted, H_{a3} rejected	There is no significant difference in the comprehensive income statement between the 6 months before and during the Covid-19 pandemic
$t > 2.262$ 2	H_{03} rejected, H_{a3} accepted	There is a significant difference in the comprehensive income statement between the 6 months before and during the Covid-19 pandemic

3. RESULT AND DISCUSSION

A. Premium Income

The results of the paired sample statistics and paired sample tests for premium income are as shown in TABLE IV and TABLE V.

TABLE IV. Paired Sample Statistic – Premium Income

	Mean	N	Std. Deviation
Before	144904759.2	6	30366465.6
During	46582463.7	6	23528968.2

TABLE V. Paired Sample Test – Premium Income

	Paired Differences				t	df	Sig (2-tailed)	
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of Difference				
				Lower				Upper
Before-During	98322295.6	6957147.3	2840243.5	91021217.3	105623373.8	34.62	5	.000

Based on TABLE IV, it can be seen that there was a decrease in the average premium income during the 6 months prior to the Covid-19 pandemic,

which was from 144,904,759.2 (in millions Rupiah) to 46,582,463.7 (in millions Rupiah). Based on TABLE 5, the results are as follows:

TABLE VII. Hypothesis Test Provisions With Sig For Premium Income

Sig		Results	Description
0.000	Sig<0.05	H_0 rejected, H_a accepted	There is a significant difference in premium income between the 6 months before and during the Covid-19 pandemic

TABLE VIII. Hypothesis Test Provisions With T For Premium Income

t		Results	Description
34.62	$t > 2.26$	H_0 rejected, H_a accepted	There is a significant difference in premium income between the 6 months before and during the Covid-19 pandemic

B. Total Net Premium Income

The results of the paired sample statistics and

paired sample tests for net premium income are as shown in TABLE IX and TABLE X.

TABLE IX. Paired Sample Statistic – Total Net Premium Income

	Mean	N	Std. Deviation
Before	139630395.4	6	12182498.7
During	43304818.9	6	91733336.4

TABLE X. Paired Sample Test – Total Net Premium Income

	Paired Differences					t	df	Sig (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of Difference				
				Lower	Upper			
Before-During	96325576.4	7509934.21	3065917.8	88444383.8	104206769.0	31.42	5	.000

Based on TABLE IX, it can be seen that there was a decrease in the average total net premium income during the 6 months prior to the Covid-19 pandemic, from 139,630,395.4 to 43,304,818.9 (in

millions Rupiah). Based on TABLE XI, the results are as follows:

TABLE XI. Hypothesis Test Provisions with Sig for Total Net Premium Income

Sig	Results	Description
0.000	Sig<0.05 <i>Ho2</i> rejected, <i>Ha2</i> accepted	There is a significant difference in total net premium income between the 6 months before and during the Covid-19 pandemic

TABLE XII. Hypothesis Test Provisions with t for Total Net Premium Income

t	Results	Description
31.42	$t > 2.26$ <i>Ho2</i> rejected, <i>Ha2</i> accepted	There is a significant difference in total net premium income between the 6 months before and during the Covid-19 pandemic

C. Comprehensive Income
The results of the paired sample statistics and

paired sample test for comprehensive income are as shown in TABLE XIII and TABLE XIV.

TABLE XIII. Paired Sample Statistic – Comprehensive Income

	Mean	N	Std. Deviation
Before	497219.7	6	1583658.5
During	-3405878.7	6	2794492.5

TABLE XIV. Paired Sample Test – Comprehensive Income

	Paired Differences					t	df	Sig (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of Difference				
				Lower	Upper			
Before-During	3903098.4	3351508.1	1368247.4	385906.4	7420290.4	2.853	5	.000

Based on TABLE XIII, it can be seen that there was a decrease in the average comprehensive income

for the 6 months prior to the Covid-19 pandemic, from 497,219.7 to -3,405,878.7 (in millions Rupiah).

Based on TABLE XV, the results are as follows:

TABLE XV. Hypothesis Test Provisions with Sig for Comprehensive Income

Sig		Results	Description
0.000	Sig<0.05	<i>H₀₃</i> rejected, <i>H_{a3}</i> accepted	There is a significant difference in the comprehensive income statement between the 6 months before and during the Covid-19 pandemic

TABLE XVI. Hypothesis Test Provisions with t for Comprehensive Income

t		Results	Description
2.853	t>2.26	<i>H₀₃</i> rejected, <i>H_{a3}</i> accepted	There is a significant difference in the comprehensive income statement between the 6 months before and during the Covid-19 pandemic

4. CONCLUSION

The Covid-19 pandemic not only has an impact on health but also make national economic losses, one of which is in the life insurance industry. Based on the conducted hypothesis test, there are significant differences in premium income, net premium income and comprehensive income between the periods of 6 months prior to and during Covid-19 pandemic.

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