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Analysis of the Influence of Financial Ratios and the Covid-19 Pandemic on the Financial Distress of Joint Venture Life Insurance Companies In Indonesia

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Abstract

The study was conducted to analyze the effect of financial ratios and the Covid pandemic on the financial distress of joint venture life insurance companies in Indonesia during the period 2017 to 2021.The quantitative approach is a research method used through testing with logit regression analysis in the SPSS 25 program. The data source comes from the annual audit report and has been submitted to the Financial Services Authority. The type of data used is secondary data based on the financial statements of joint venture life insurance companies.The study concluded that the ROA and Equity ratio indicators have a significant negative effect on financial distress. Furthermore, other financial ratios, namely Liquidity, RBC, RKI, Claim ratio and the Covid Pandemic, do not affect the financial distress of joint venture life insurance companies. This study provides suggestions for OJK to continue using Equity and add ROA to the Early Warning System (EWS) used so that it can provide comprehensive information regarding the health condition of insurance companies.

1. Introduction

December 2019, a new variant of the virus that causes Covid 19 disease hit the world. Wuhan, China, was the first city where the infection was discovered and eventually spread throughout the world and Indonesia was one of them. The Corona Virus that caused the Covid outbreak was declared a pandemic and national disaster by the government in March 2020. Restrictions on community activities were carried out by the government with the aim of limiting the spread of the virus. During the restrictions on activities, people can still carry out activities with certain limitations. The economic sector was affected by the restrictions on community activities. The IMF in its report stated that during the Covid-19 pandemic, global economic growth fell by 3%. This decline is worse than the global economic crisis. Steps to address health problems, protect

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economic and financial stability, and prevent the emergence of adverse macro financial feedback need to be taken immediately during the Covid-19 pandemic (IMF, 2020)

One of the important economic driving sectors in Indonesia is the financial services industry. The financial services industry has made a significant contribution in providing funding sources for national economic development. The Covid-19 pandemic has also had an impact on the financial services industry. The Covid-19 pandemic has put heavy pressure on the financial services sector worldwide and has created macroeconomic turmoil and triggered a global economic recession.(Feyen et al., 2021).

Furthermore(Feyen et al., 2021)states that policies for the financial services sector focus on providing liquidity to financial institutions and markets (e.g., lowering provisioning requirements and purchasing financial assets); maintaining operational and business continuity (e.g., extending supervisory reporting deadlines); facilitating credit and policies for borrowers facing short-term payment difficulties (e.g., lowering interest rates, imposing debt payment moratoriums, facilitating loan restructuring) or by providing regulatory relief (e.g., encouraging banks to use available capital and liquidity buffers, allowing flexible treatment of problem loans and asset classifications).

On January 15, 2021, at the annual financial services industry event, the Chairman of OJK said that several potential risks had increased due to the Covid-19 pandemic, from the liquidity risk side marked by the outflow of funds, the credit risk side marked by debtor credit becoming problematic, and from the profitability side of financial services companies and debtor businesses. Anticipating the impact of this pandemic on the financial services sector as a whole, a countercyclical policy was issued with the aim of reducing the outflow of funds and market volatility, as well as maintaining the financial system(OJK, 2021).

Insurance as one of the industries in the financial services sector is also affected by the Covid pandemic. Research on the relationship between the Covid-19 pandemic and insurance has been widely conducted. ResearchFarooq et al., (2021)in Australia, Canada, Germany, the United States, the United Kingdom, Brazil, India, and Indonesia found that both short-term and long-term stock returns were affected by Covid-19. Other studies have shown that in developing countries, such as Bangladesh, the Covid-19 pandemic has contributed significantly to a contraction in the insurance sector.(Haque et al., 2021). The results of the study showed that quarterly premium growth, there was a significant decline in insurance density and penetration during Covid-19.

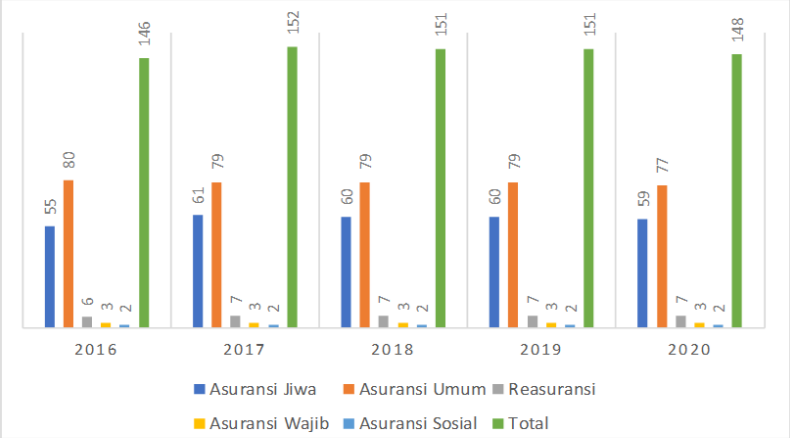
The insurance industry is an industry of trust. The most important thing in insurance is maintaining the trust of policyholders/insured. This trust is maintained if the insurance company can fulfill its obligations in the form of payment of claims filed by policyholders/insured. The financial health of the insurance company as stated in the financial report is a picture of the company's strength in paying off its obligations. In running a business, insurance companies face problems, including business uncertainty, liquidity difficulties and high operating costs. These problems can cause the insurance industry to experience financial difficulties.

Financial distresshas a definition of a state of financial distress of a company indicated by low liquidity, inability to pay debts, dividend distribution restriction policies, increased capital costs, restrictions on funding sources, and low credit ratings (Agostini, 2018). Financial distress is the initial phase before bankruptcy or liquidation which is characterized by negative net operating profit in several years, no dividends, financial restructuring, and mass employee reductions (Platt and Platt, 2002).

Based on OJK data, there were 148 insurance companies as of December 31, 2020. This number consists of 77 general insurance companies, 59 life insurance companies, 3 mandatory insurance companies, 7 reinsurance companies, and 2 social insurance companies. The

development in the last 5 years of the number of insurance companies can be seen in the following table:

Figure 1.
Number of Insurance Companies



Sumber: Statistik Perasuransian 2020 (OJK, 2021)

Based on Figure 1. it is known that life insurance as of 2016 amounted to 55 companies, increased to 61 companies in 2017, then decreased in 2018 and 2019 to 60 companies and in 2020 decreased to 59 companies. General insurance amounted to 80 companies in 2016, then in 2017 to 2019 decreased to 79, and in 2020 the number of companies decreased to 77. For reinsurance, mandatory insurance, and social insurance, the number is relatively the same from 2016 to 2020. Based on this description, there is a tendency for the total number of insurance companies to decrease in the last 5 years. The companies that experienced a decrease were life insurance and general insurance. The cause of the decrease in the number of companies was the revocation of business licenses by the OJK. The basis for the revocation of business licenses comes from the return of licenses or the level of financial health of the company. The list of insurance and reinsurance companies whose business licenses were revoked by the OJK for the period 2016 to 2020 is shown in the following table:

Table 1.
Revocation of Business License

No.	Name	Type of business	Decree	Reasons for Revocation of Permit
1	Bakrie Life Insurance	PAJ	KEP-76/D.05/2016 dated 15 September 2016	Financial Health
2	CIMB Sun Life	PAJ	KEP-108/D.05/2016 dated December 27, 2016	Return of Business License
3	Indonesian International Reinsurance	PR	KEP-1/D.05/2017 dated January 20, 2017	Return of Business License
4	Raya Insurance	PAU	KEP-48/D.05/2017 dated July 5, 2017	Financial Health
5	Fairfax Insurance Indonesia	PAU	KEP-85/D.05/2017 dated 2 October 2017	Return of Business License
6	AXA Life Indonesia	PAJ	KEP-2/D.05/2018 dated January 19, 2018	Return of Business License
7	Himalaya Insurance Protector	PAU	KDK-41/KDK.05/2019 dated April 30, 2019	Financial Health

8	AXA Insurance Indonesia	PAU	KEP-5/D.05/2020 dated February 17, 2020	Return of Business License
9	Recapital Insurance	PAU	KEP-45/D.05/2020 dated 16 October 2020	Financial Health
10	FWD Life Indonesia	PAJ	KEP-54/D.05/2020 dated December 1, 2020	Return of Business License

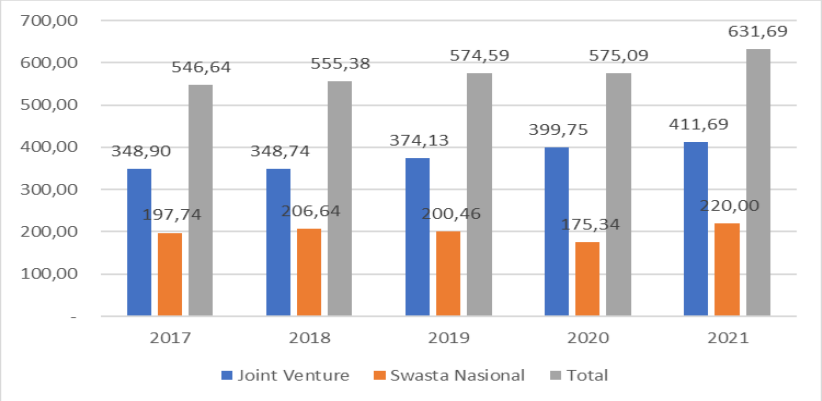
Source: OJK (processed)

Table 1. explains that during the 5-year period of 2016 - 2020, there were 10 insurance or reinsurance companies whose business licenses were revoked by the OJK. In 2016, 2 Life Insurance Companies (PAJ) had their business licenses revoked, in 2017, 1 Reinsurance Company (PR) and 2 General Insurance Companies (PAU) had their business licenses revoked. In 2018, 1 PAJ and 2019, 1 PAU had their business licenses revoked. Finally, in 2020, 2 PAU and 1 PAJ had their business licenses revoked. Of that number, 4 or 40% of companies were revoked for financial health reasons.

Based on the data above, in the period 2016 - 2020 the trend in the number of insurance companies showed a decline. One of the things that caused the decline was the financial health of the insurance company which was not in accordance with the provisions. The financial health of the company caused the revocation of the business license because the company's solvency and equity ratios were below the provisions. This shows that the company's solvency and equity ratios cause financial distress so that the company will not be able to meet the obligations that arise.

If life insurance assets are detailed based on ownership, namely joint ventures and private/national, it will be seen in the image below (in trillions of rupiah):

Figure 2.
Life Insurance Company Assets



Source: OJK

Based on Figure 2. it is known that in terms of ownership of life insurance, the value of joint venture life insurance assets is quite significant compared to national private ownership. The large asset value of joint venture life insurance has an impact on the insurance industry. This can be interpreted that if the health level of joint venture life insurance is problematic, it will have an impact specifically on the life insurance industry and in general on the insurance industry.

OJK has regulated the health of insurance companies in POJK 71/2016 concerning the financial health of the insurance and reinsurance industry. The regulator requires insurance

companies to comply with the requirements for financial health levels at all times. The measuring instruments for the financial health of insurance companies are: solvency ratio, investment adequacy, technical reserve adequacy, amount of guarantee funds, minimum equity, and other provisions related to financial health. POJK 71/2016 also requires companies to meet a minimum solvency ratio of 100% (one hundred percent) of MMBR at all times as the minimum limit for the solvency level. In addition, insurance is required to set a minimum internal solvency ratio target of 120% (one hundred and twenty percent) of MMBR each year that takes into account the company's risk and the results of stress test simulations.

Article 19 of POJK 71/2016 regulates liabilities as follows: 1) Liabilities that must be used to calculate the solvency ratio are the company's total liabilities including technical reserves. 2) Technical reserves formed by the company must be adjusted to the type of product. 3) The company's internal actuary determines the value of technical reserves.

Article 25 of POJK 71/2016 stipulates that: 1) Insurance obligations have assets in the form of investments plus cash and banks at least the sum of the company's retention claim liabilities, the company's technical retention reserves, and other obligations to policyholders or insured. 2) The amount of the company's retention claim liabilities comes from obligations for claims that have been agreed but have not been paid and is reduced by the claim burden paid by the reinsurer.

Then, POJK 71/2016 Article 33 states that minimum equity of IDR 100,000,000,000 (one hundred billion rupiah) must be owned by an insurance company at all times. The financial health of a good company is indicated by good financial performance. Evaluation of financial performance is done through analysis of data in financial reports.(Supriyanto, 2021). Analysis of financial reports is one of the tools to determine the impact of the implementation of the company's strategy on the targets that have been achieved and the financial condition of the company.(Cahyaningtyas, et.al, 2014). Financial distress of a company can be predicted from its financial performance. One of the tools to measure financial performance is the financial ratio. The definition of a financial ratio is a value derived from a comparison of several items in the financial report that are interrelated.(Vionita and Lusmeida, 2019).

A tool to help predict the financial difficulties faced by a company can use the results of an analysis of financial ratios.(Widhiari & Merkusiwati Lely, 2015). According to Gibson, financial statement analysis is the process of assessing a company. The main purpose of the analysis is to identify major changes in trends, numbers, and relationships and to find out the underlying causes of these changes. Major changes signal early indications of significant changes in the future success or failure of a business. Liquidity ratios; profitability; and solvency are some of the main financial ratios that are used as measures of a company's financial health.

The liquidity ratio reflects the total current assets that can be used to pay a company's short-term liabilities. A larger liquidity ratio value indicates that the company's short-term liabilities can be met with its current assets. This ability can prevent the company from possible financial difficulties. Dewi and Mahfudz's research shows that the liquidity ratio, which is obtained using the formula for current liabilities compared to current assets (CL/CA), has a large and positive influence on the possibility of a company's financial distress.(Dewi & Mahfudz, 2016).

How much a company is able to generate profit is defined as the profitability ratio. The use of company profits in addition to developing the business, for example purchasing assets, paying liabilities, financing operations, can also be distributed as dividends to shareholders. Financial distress conditions can be characterized by the company not generating profit within a certain period of time. The inability to generate profit has an impact on non-payment of obligations, hampered business development, and disrupted operational activities. This condition can cause the company to not develop and can be sued for bankruptcy by creditors because it cannot pay its obligations.

The solvency ratio describes the company's strength in paying all its obligations. The company's funding sources in developing its business can come from internal, company profits, or external, namely debt to other parties. Leverage is a tool to find out the source of financing for

company assets that come from external or debt. A high value on the leverage ratio indicates that the company in funding its business activities comes from debt.(Vionita & Lusmeida, 2019). Large debts can make it difficult for a company to pay them off in the future. Difficulty in paying debts can result in financial distress for a company. Research(Maysaroh et al., 2022)concluded that the ability of insurance company assets to meet their obligations as stated in DAR has a positive and significant influence on financial distress.

There are quite a lot of previous studies that use financial ratios as a tool to find out financial distress in insurance companies. Sharpe and Stadnik's (2007) research aims to identify the factors causing financial distress in general insurance in Australia. Salameh(Salameh, 2021)in his research using discriminative regression techniques to test 28 indicators selected from 11 financial failure parameter models to validate the use of the model in predicting financial distress of insurance companies. The eleven parameter models are: solvency, profitability, operational capability, structural health, capital expansion capacity, capital adequacy, reinsurance and actuarial problems, management health, capital expansion capacity, income and profitability, and liquidity. Research(Isayas, 2021)also used financial ratios to find out the main factors causing financial distress of insurance companies in Ethiopia.

Research on insurance companies in Indonesia regarding financial distress has also been conducted frequently. Amiruddin and Nustini(Amiruddin et al., 2020)in his research concluded that "Working Capital to Total Asset and Book Value Of Equity To Book Value Of Total Debt have a positive effect on the occurrence of financial distress". While "Retained Earning To Total Asset and Earning Before Interest And Taxes To Total Asset have a negative effect on the occurrence of financial distress". A research conducted by(Harjadi & Sihombing, 2020)concluded that several financial ratios in insurance companies, namely: underwriting, claims, liabilities to current assets, technical reserves, net premium growth, and risk-based capital have an impact on the potential for financial distress.

2. Method

The study gets data from the OJK which is processed. The type of information used is quantitative data such as ROA data, liquidity ratio, RBC, RKI, claim ratio, equity and the Covid-19 pandemic. The quantitative data to be studied is time series data sourced from audited financial reports from 2017 to 2021. Definition of population according to(Sugiyono, 2013)is a collection of subjects or objects selected by researchers with certain criteria to be analyzed and ultimately drawn conclusions. The study was conducted on all joint venture life insurance companies that have business licenses at the OJK during the period 2017 - 2021 and still have business licenses until the end of 2021.

According to(Sekaran & Bougie, 2016), sample means an object part of the population selected for analysis. Samples are needed if the population of data to be studied is very large and sampling must be representative of the population (Sugiyono, 2013). Given the relatively small population, observation of the entire research population is possible. Therefore, research sampling is not carried out so that all research object data will be processed.

The study used an analysis method with a panel data logistic regression model. The use of this model is because the dependent variable uses dummy data. According to Baltagi (2021), the term panel data refers to the collection of cross-section data over a certain period of time. The independent variables in logistic regression are a combination of metrics and non-metrics. Based on this, the assumption of multivariate normal distribution is not met so that the normality of the independent variables in logistic regression is not required (Ghozali, 2021:249).

3. Results and Discussion

Research Data

The data came from the annual audited financial reports of joint venture life insurance companies in Indonesia from 2017 to 2021. The number of life insurance companies is 23 companies with a period of 5 years so that the total number of data is 115. The data comes from the Financial Services Authority with the object of research being the population of joint venture life insurance companies from 2017 to 2021 which amounted to 115. The data was processed using the Statistical Package For Social Science (SPSS) Version 25 application.

Descriptive Statistics

Descriptive statistical testing of the dependent and independent variables produced data as shown in Table 3 below.

Table 3.
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistics	Statistics	Statistics	Statistics	Statistics	Statistics	Std. Error	Statistics	Std. Error
ROA	115	-0.33515	0.14507	0.00415	0.06547	-2,583	0.226	9,834	0.447
RKI	115	0.00000	491656,73613	4279,17717	45846,86033	10,724	0.226	115,000	0.447
RBC	115	2.64134	75.89237	12.4971435	14.64703244	2,628	0.226	6,776	0.447
Liquidity	115	1.00709	241,05515	6.0139053	22.50713732	10,174	0.226	106,893	0.447
Claim	115	-1.24580	2.84086	0.65487	0.37611	0.466	0.226	14,204	0.447
Ln Equity	115	11.57793	16,56112	14,50075	1,17968	-0.208	0.226	-0.909	0.447
FD	115	0	1	0.18	0.388	1,665	0.226	0.785	0.447
PC	115	0	1	0.40	0.492	0.414	0.226	-1,862	0.447
Valid N	115								

Source: Results of processing SPSS 25

The mean value of 0.18 in the FD variable indicates that there is 18% of data from the population experiencing Financial Distress. The standard deviation values of the ROA, RBC, RKI, and liquidity variables that are greater than the mean indicate wide variations in the data. Skewness and kurtosis that are close to zero mean the data is normally distributed (Ghozali, 2021:21). Based on the table above, only Equity data is normally distributed with a skewness value of 0.208 and kurtosis of 0.909.

Multi collinearity Test

Correlation detection between independent variables using Variance Inflation Factor (VIF) and Tolerance value. Common criteria often used to determine correlation are Tolerance value ≤ 0.10 or VIF ≥ 10. The correlation of independent variables is shown in Table 4. Below.

Table 4.
Correlation Between Independent Variables

	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
ROA	0.773	1,293
RKI	0.019	53,044
RBC	0.355	2,816
Liquidity	0.017	60,053
Claim	0.734	1,362
Equity	0.633	1,581
PC	0.954	1,048

Source: Results of processing SPSS 25

Table 4 shows the correlation relationship between RKI and Liquidity because Tolerance ≤ 0.10 and VIF ≥ 10. The presence of correlation results in the logistic regression equation having to be broken down into 2 models, namely:
Model 1:
FD = β0 + β1ROA + β2RKI + β3RBC + β4Claim + β5Equity + β6PC + e
Model 2:
FD = β0 + β1ROA + β2RBC + β3Liquidity + β4Claims + β5Equity + β6PC+ e

Model Fit Test (Overall Model Fit)

*Log Likelihood Value*is a method for conducting a model fit test, namely comparing the initial -2LL value (block number = 0) with the final value (block number = 1). If the final -2 log likelihood value is smaller than the initial -2 log likelihood, the better the regression model (Ghozali, 2021:357). The following hypotheses were used to test the model fit.

H0: model fits the data
H1: The model does not fit the data.

Table 5.
Model Fit Test

	Model 1	Model 2
-2Initial log likelihood	109,325	109,325
-2Log likelihood final	66,554	66,714

Source: Results of processing SPSS 25

According to Table 5, the regression analysis before the independent variables were entered showed that the initial -2Log likelihood value for both models was 109.325. After the six independent variables were entered, the final -2Log likelihood value dropped to 66.554 in model 1 and 66.714 for model 2. These results indicate that both models fit the data so that it can be stated that the regression model is appropriate or H0 is accepted.

Goodness of Fit Test

The measurement of the suitability of a model uses Hosmer and Lemeshow's Goodness of Fit Test. If the test results show a p-value ≤ 0.05, it means that there is a significant difference between the model and its observation value. This difference makes the model unfit to be used to predict its observation value. When the test produces a p-value ≥ 0.05, it means that there is no significant difference between the model and the data. This makes the model suitable for predicting its observation values.

Table 6.
Model Feasibility Test

	Model 1	Model 2
Chi-square	10,815	10,653
Df	8	8
Sig.	0.225	0.222

Source: Results of SPSS 25 data processing

According to Table 6., the results of the Hosmer and Lemeshow test for model 1 produced a Chi-square of 10.815 with a significance of 0.225. The results of this test indicate a p-value (0.225) ≥ 0.05 so that model 1 is suitable for use to predict its observations. For model 2, a Chi-square value of 10.653 and a significance of 0.222 were obtained. These results indicate that the p-value (0.222) ≥ 0.05 so that model 2 can be used to predict observations.

Nagelkerke R Square Test

The ability of independent variables to explain dependent variables is shown by the Nagelkerke R Square test. The R Square value is close to 1, indicating that the independent variables can explain the dependent variable. The R Square values of each model are shown in Table 7.:

Table 7.
Nagelkerke R Square Test

	Model 1	Model 2
-2Log likelihood	66,554	66,714
Cox & Snell R Square	0.311	0.310
Nails R Square	0.506	0.505

Source: Results of processing SPSS 25

According to Table 4.5, the independent variables in the first model, namely ROA, RKI, RBC, Claims, Equity, and PC, produce an R Square value of 0.506. This indicates that the ability of the independent variables can explain the dependent variable, namely FD (Financial Distress) by 50.6%. Other variables outside the research model explain the remaining 49.4%. For the second model, with variables namely ROA, RBC, Liquidity, Claims, Equity, and PC, the R Square result is 50.5% and 49.5% is explained by other variables.

Classification Table

The logistic regression model can be used to predict the occurrence of Financial Distress in JV life insurance companies which is measured using a classification table.

Table 8.
Classification table

Observed		Model 1 and Model 2		
		Predicted		Percentage Correct
		No FD	FD	
VASE	No FD	92	2	97.9
	FD	8	13	61.9
Overall Percentage				91.3

Source: Results of processing SPSS 25

According to Table 8. above, the ability of the model to predict the occurrence of No Financial Distress or Financial Distress is 91.3%. The possibility of the company not being in Financial Distress is 97.9% of the total sample of 115 JV life insurance companies and the possibility of the JV life insurance company experiencing Financial Distress is 61.9% of the total sample data.

Wald Test (t-Statistic Test)

The ability of individual independent variables to influence dependent variables is measured using the Wald Test. The test results of each model are as follows.

Table 9.
Wald Model 1 Test

	B	SE	Wald	df	Sig.	Exp(B)
ROA	-22,866	7,445	9,432	1	0.002	0,000
RKI	0,000	0,000	0.023	1	0.879	1,000
RBC	-0.023	0.024	0.880	1	0.348	0.977
Claim	-0.691	0.793	0.760	1	0.383	0.501
Equity	-0.741	0.362	4,187	1	0.041	0.477
PC	0.803	0.666	1,457	1	0.227	2,233
Constant	9,184	5,116	3,223	1	0.073	9738,757

Source: Results of processing SPSS 25

Table 10
Wald Model 2 Test

	B	SE	Wald	df	Sig.	Exp(B)
ROA	-23,193	7,437	9,726	1	0.002	0,000
RBC	-0.022	0.027	0.652	1	0.419	0.978
Liquidity	-0.008	0.027	0.086	1	0.769	0.992
Claim	-0.676	0.789	0.735	1	0.391	0.509
Equity	-0.732	0.361	4,104	1	0.043	0.481
PC	0.800	0.666	1,446	1	0.229	2,226
Constant	9,062	5,105	3,151	1	0.076	8618,822

Source: Results of processing SPSS 25

The research data used (n) is 115, the independent and dependent variables (k) are = 7, the degree of freedom (df) is obtained = n – k = 115 – 7 = 108, and the level of significance α = 0.05, then the ttable is 1.982. From Table 4.7 and Table 4.8, the following conclusions can be drawn:

1. ROA and Equity individually have an effect on Financial Distress (FD) because t count is more than t table and p-value < 0.05.
2. RBC, RKI, Liquidity, Claims, and Covid Pandemic (PC) individually do not affect FD because t-count is less than t-table and p-value > 0.05.

Simultaneous Test f

In order to find ou t whether all independent variables simultaneously affect the dependent variable, the simultaneous f test is used. The criteria used are:

a. When the f-count value < f-table and p-value > 0.05, it can be interpreted that all independent variables simultaneously have no effect on the dependent variable.
b. If the f-count value > f-table and p-value < 0.05, it indicates that all independent variables simultaneously influence the dependent variable.

Table 11.
Simultaneous F Test

Model 1			Model 2		
Chisquare	df	Sig.	Chisquare	df	Sig.
42,771	6	0,000	42,611	6	0,000
42,771	6	0,000	42,611	6	0,000
42,771	6	0,000	42,611	6	0,000

Source: Results of processing SPSS 25

The research data (n) amounted to 115, the total dependent and independent variables (k) = 7, then df = k-1 = 6 and the value of df1 = nk = 115-7 = 108. Using a significance of 5% (0.05), the ftabel value was obtained = 2.18. Based on Table 4.9 above, both model 1 and model 2, fcount> ftabel and the significance value is less than 0.05. The conclusion obtained is that the independent variables ROA, RKI, RBC, Liquidity, Claims, Equity, and the Covid Pandemic simultaneously affect financial distress.

Hypothesis Testing

1. *Hypothesis Testing H1*: ROA has a negative effect on the probability of Financial Distress in JV life insurance companies.
   The ROA variable in both models has a negative coefficient and a p-value <0.05 so that H1 is accepted for a value of α = 0.05. Thus, ROA has a significant negative effect on the probability of Financial Distress in JV life insurance companies.
2. *Hypothesis Testing H2*: Liquidity has a negative effect on the probability of Financial Distress in JV life insurance companies.
   The Liquidity variable in model 2 has a negative coefficient with a p-value > 0.05, therefore H2 is rejected for a value of α = 0.05. In conclusion, the Liquidity ratio does not affect the probability of Financial Distress in JV life insurance companies.
3. *Hypothesis Testing H3*: The RBC ratio has a negative effect on the probability of Financial Distress in JV life insurance companies.

The RBC variable in both models has a p-value > 0.05 with a negative coefficient value so that H3 is rejected for a value of α = 0.05. Thus, the RBC ratio does not affect the possibility of Financial Distress in JV life insurance companies.

4. *Testing Hypothesis H4*: RKI has a negative effect on the probability of Financial Distress in JV life insurance companies.
   The RKI variable in model 1 has a positive coefficient and a p-value > 0.05 so that H4 is rejected for a value of α = 0.05. Thus, the probability of Financial Distress of JV life insurance companies is not influenced by RKI.
5. *Testing Hypothesis H5*: Claim ratio has a positive effect on the probability of Financial Distress in JV life insurance companies.
   The claim ratio indicator for both models has a negative coefficient with a p-value > 0.05 so that H5 is rejected for a value of α = 0.05. Thus, the Claim ratio has no effect on the possibility of Financial Distress in JV life insurance companies.
6. *Hypothesis Testing H6*: Equity has a negative effect on the probability of Financial Distress in JV life insurance companies.
   The Equity variable in both models has a negative coefficient with a p-value <0.05 so that H6 is accepted for a value of α = 0.05. Thus, Equity has a significant negative effect on the probability of Financial Distress in JV life insurance companies.
7. *Hypothesis Testing H7*: The Covid pandemic has a positive impact on the probability of Financial Distress in JV life insurance companies.

The Covid Pandemic variable in both models has a positive coefficient with a p-value > 0.05 so that H7 is rejected for a value of α = 0.05. Thus, the Covid Pandemic has no effect on the probability of Financial Distress in JV life insurance companies. The results of the hypothesis test and its coefficient values are shown in the table below:

Table 12.
Hypothesis Results

Hypothesis	Model 1 Test Results	Model 2 Test Results
H1: ROA has a negative effect on the probability of Financial Distress in JV life insurance companies.	H1 accepted (coef. -22.866) (sig. 0.002)	H1 accepted (coef. -23.193) (sig. 0.002)
H2: Liquidity ratio has a negative effect on the probability of Financial Distress in JV life insurance companies.	-	H2 rejected (sig. 0.769)
H3: The RBC ratio has a negative effect on the probability of Financial Distress in JV life insurance companies.	H3 rejected (sig. 0.348)	H3 rejected (sig. 0.419)
H4: RKI has a negative influence on the probability of Financial Distress in JV life insurance companies.	H4 rejected (sig. 0.879)	-
H5: Claim ratio has a positive effect on the probability of Financial Distress in JV life insurance companies.	H5 rejected (sig. 0.383)	H5 rejected (sig. 0.391)
H6: Equity has a negative effect on the probability of Financial Distress in JV life insurance companies.	H6 accepted (coef. -0.741) (sig. 0.041)	H6 accepted (coef. -0.732) (sig. 0.043)

H7: The Covid pandemic has a positive effect on the probability of Financial Distress in JV life insurance companies.	H7 rejected (sig. 0.227)	H7 rejected (sig. 0.229)

4. Discussion of Research Results

The regression model in this study uses independent variables ROA, liquidity ratio, RBC, RKI, claim ratio, equity, and the covid pandemic. Testing has been carried out and it was concluded that the model is feasible and can be used to predict Financial Distress. Regression analysis shows that all independent variables simultaneously affect the prediction of Financial Distress of JV life insurance companies.

Research (Isayas, 2021) states that profitability is a measure of how effectively a company can generate profits from its operational activities. One way to measure profitability is to use ROA. A high ROA value indicates that the chances of Financial Distress are decreasing. The results of the study that ROA has an effect and is negatively correlated with the occurrence of Financial Distress are in accordance with the initial hypothesis and support the results of previous research (Waqas and Md-Rus, 2018; Sharpe and Stadnik, 2007; Amanah and Zamachsyari, 2016) which state that the profitability ratio has a negative and significant effect on the possibility of Financial Distress.

The Liquidity variable provides an overview of the insurance's strength in paying its short-term obligations. High liquidity means that the company is able to carry out its business activities and pay its obligations (Maysaroh et al., 2022). For life insurance companies, the products sold are mostly long-term so that the obligations that must be met are also long-term. In terms of assets, the amount of current assets is high because there are premium receivables that must be met by the insured periodically or annually. In addition, current assets from insurance are mostly in the form of investments.

The composition of these current assets is different from companies in general. Investments in insurance companies can provide income. This results in the liquidity of life insurance companies being quite high so that they are able to carry out operational activities and fulfill their obligations and minimize the occurrence of operating losses. This condition causes liquidity not to affect the occurrence of Financial Distress in life insurance companies. The results of this study support previous research (Maysaroh et al., 2022) namely that liquidity does not affect the possibility of Financial Distress in insurance companies but is the opposite of the results of research (Dewi and Mahfudz, 2016) which concluded that liquidity has an effect on the occurrence of Financial Distress.

The study found that Risk Based Capital (RBC) has no effect on the possibility of Financial Distress in JV life insurance companies. RBC is a measure of the minimum net assets required by insurance to meet the funding needs needed to cover the risk of loss. The minimum RBC limit set for insurance companies is 120% so that insurance companies will always maintain the RBC value above the provisions. The RBC value that meets the provisions makes consumers trust and continue to buy policies from the company so that business continuity is maintained.

Other research results that are in accordance are research (Isayas, 2021; Ismunawan and Nilasari, 2021; Dewi and Mahfudz, 2016) namely that RBC has no effect on Financial Distress. The conclusion of this research is not in line with research (Harjadi and Sihombing, 2020) which shows that RBC has a negative effect on the occurrence of Financial Distress in insurance.

The adequacy of insurance company assets in the form of investments and cash to meet policyholder obligations is called the Investment Adequacy Ratio (IAR). A high investment value is assumed to reduce the occurrence of Financial Distress because the company can meet its obligations using the investments it has. In life insurance companies, most assets are placed in the form of investments. This is a means of providing funds to fulfill obligations that occur in the future. This study measures the probability of Financial Distress based on the company's performance or profit/loss generated by the company. So that investment results are a factor that

directly influences the possibility of Financial Distress because investment results affect the company's profit/loss.

A high investment value has no effect on Financial Distress if the investment results obtained are low and result in insurance losses. The results of the study showed that IAR had no effect on the probability of Financial Distress. In addition, the research data also showed that there were 29 company data that had IAR values above 100%, namely between 120% - 2,887% but experienced losses.

The claim ratio is calculated from the gross claim burden divided by the gross premium. A high claim ratio value indicates that the company's underwriting calculation is not accurate and affects the company's ability to pay claims that occur. According to the research results, the claim ratio has no effect on Financial Distress. A high claim ratio value does not necessarily cause life insurance to experience Financial Distress because the large claim value does not directly cause the company to experience losses or be unable to pay its obligations. High investment returns, investment assets, and sufficient technical reserves make the company able to pay claims that occur. Research data also shows that there are seven companies with a claim ratio above 100% but do not experience losses as indicated by a positive ROA. The results of the study support research (Marliza and Prasetiono, 2014; Amanah & Zamachsyari, 2016) which states that the claim burden ratio does not have a significant effect on the Financial Distress of insurance companies.

Research shows that equity has an effect and a negative correlation with the occurrence of Financial Distress. Under normal conditions, equity will continue to increase with an increase originating from the company's operating profit. The higher the equity, the better the company's performance because the profit obtained is greater so that the occurrence of Financial Distress becomes lower. The results of the study support previous research (Isayas, 2021) which states that Financial Distress is negatively related to capital adequacy.

The study found that the Covid Pandemic had no effect on the possibility of Financial Distress in JV life insurance. This result contradicts research (Feyen et al., 2021; Haque et al., 2021) which states that financial institutions experienced pressure and insurance density and penetration fell significantly during the Covid pandemic. During the Covid pandemic in 2020 - 2021, from 46 data, the average RBC of the company was 1,086.95% and the claim ratio was 71.82%.

This shows that the capital adequacy of the JV life insurance company is strong enough to meet all its obligations. In addition, the low claim ratio during Covid illustrates that the underwriting carried out by the company is good so that the claims that occur on the insurance portfolio are not large. The results of this study are in line with (Pulawska, 2021) whose research found that the Covid pandemic had no effect on insurance companies in Poland. The results of the study are also in line with research by (Ratmono and Umam, 2023) which states that the Covid pandemic is not significant for Financial Distress for the financial industry in Indonesia.

5. Conclusion

Based on the results of data processing described in chapter IV of this study, the conclusions drawn are:

1. All independent variables, namely ROA, RKI, RBC, Liquidity, Claim Ratio, Equity, and the Covid Pandemicsimultaneously affects the probability of the occurrence of Financial Distress in JV life insurance companies.
2. The ROA and Equity variables have a significant and negative influence on the possibility of financial difficulties in JV life insurance companies.

3. Other independent variables, namely Liquidity, RBC, RKI, Claim Ratio, and the Covid Pandemic, have no effect on the probability of Financial Distress in JV life insurance companies.

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