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## Prediction model of financial distress reporting of multifinance companies in 2017-2021 in Indonesia

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**Abstract.** The urgency of this study is because the phenomenon of the Covid-19 pandemic is the cause of many multifinance companies to have an impact on decreasing the quality of financial performance so that it has the potential for *financial distress*, while the purpose of this study is to determine and analyze the effect of liquidity, solvency and profitability on one of the 7 most accurate bankruptcy prediction models. The sample method used is a *purposive sampling* technique with criteria, namely (1) companies engaged in financing (multi finance), (2) Meeting data needs, from 100 samples get 34 companies, analyzing data calculations by calculating financial performance and 7 bankruptcy prediction models, 1 bankruptcy prediction model is chosen that is the most accurate with the lowest number of companies predicting risk to see the effect using data regression panel because the financial statements are reviewed in a time series of 5 years period, the research method used with the number of research samples is 34 companies from 100 populations, with a comparative analysis method of 7 bankruptcy models, influence tests with classical assumption tests and regression panel data because the financial statements are reviewed in a 5-year time series period, the results obtained are that the analysis of financial performance is based on predetermined ratios Describes an increase every year in several companies, and indicates that 34 companies have very good financial positions. bankruptcy analysis from 7 methods, there are 3 companies 3 times in a row to get distress conclusions, namely Bosowa Multifinance, Anugerah Buana Central Multi Finance and Batavia Prosperindo Finance Tbk. In addition, the relevant bankruptcy prediction in this study uses a Z Score where the results are assessed because a positive Z Score value indicates a lower level of bankruptcy risk, The results of the influence test result that the variables of liquidity, solvency and profitability affect the Bankruptcy Prediction, the managerial implications obtained even though the company is considered good but still must be controlled and evaluated financial management every period.

**Keywords.** liquidity, profitability, solvency, and bankruptcy prediction

### Introduction

Finance companies are one form of non-bank financial institutions that have a major role in the economy. Finance companies are used by companies, government and private bodies as a place to store their funds not in savings accounts, current accounts and time deposits, but in the form of bonds and stock securities. Apart from being a place to store funds, through credit

activities and various services provided, finance companies serve financing needs and launch payment system mechanisms for all sectors of the economy.

From agricultural insurance trials in various regions, concerns that farmers object to policy payments are suspected not to occur. In the Rice Farm Insurance (AUTP) trials in 2012 and 2013, it was assumed that premiums were paid by farmers of 20% or Rp 36,000/ha/MT. Farmers are willing to follow the rules of agricultural insurance, including paying a premium of 20% and paying the premium is not burdensome to him. Farmers receive an insurance program as a form of farm risk protection which is seen as providing benefits for farmers when they experience crop failure because they still have working capital to grow their next crops. It is possible that farmers' objections do occur but a way out must be found. For example, in Karawang-West Java district, farmers are interested in participating in agricultural insurance. This is because farmers feel that they have never experienced crop failure so they do not need insurance, while they have to pay an insurance premium of Rp36 thousand per hectare (20% of the total premium) which is considered quite burdensome. (Setkab, 2023)

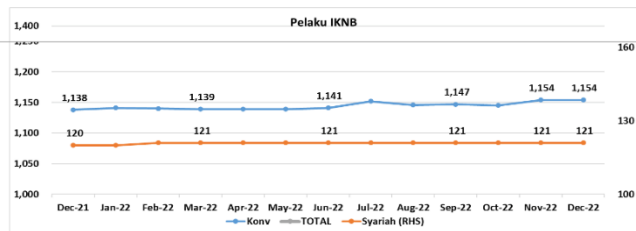
The non-bank financial industry is an institution that plays an important role in raising funds, issuing securities, to distributing investment funds in various companies. Thus, its existence plays a strategic and vital role in the Indonesian economy. The non-bank financial industry is an institution that organizes financial activities in the form of raising funds from the public and then channeling them for investment activities in companies and issuing securities. The non-bank financial industry, which is often referred to as a non-bank financial institution (LKNB), was established in 1972 according to the Decree of the Minister of Finance No. 38/MK/IV/1972. The purpose of its establishment is to encourage the development of the capital market so that the distribution of funds is more efficient so as to improve public welfare.

The Covid-19 pandemic is considered to be the cause of many *multi finance* companies, including motor vehicle leasing, closing operations and went out of business. The closure of this operation is suspected because the related company does not meet the minimum equity requirements required by the regulator, as well as because of the change in business segments no longer being *multi finance* companies. Referring to Non-Bank Financial Industry (IKNB) statistical data published by the Financial Services Authority (OJK) until December 2022.

**Table 1. 11. Statistics of LKNB and IKNB Actors for December 2022 Period**

Komponen	Desember 2022		Total
	Konvensional	Syariah	
<b>Lembaga Pembiayaan</b>	<b>200</b>	<b>9</b>	<b>209</b>
Perusahaan Pembiayaan	150	4	154
Model Ventura	49	5	54
PP Infrastruktur	2	0	2
<b>Data Pembiain</b>	<b>287</b>	<b>4</b>	<b>292</b>
OPPK-PPAP	136	2	138
OPPK-PPP	36	1	37
OPPK	25	1	26
LUK	142	5	147
1. LPI	1	-	1
<b>2. Perjudian**</b>	<b>123</b>	<b>3</b>	<b>127</b>
1. Lembaga Penjamin	20	2	22
4. PT SMI (Pensero)	1	-	1
5. PT PMA (Pensero)	1	-	1
6. PT Danareksa (Pensero)	-	-	-
<b>Jasa Penunjang IKNB</b>	<b>223</b>	<b>-</b>	<b>223</b>
1. Perusahaan Pialang Asuransi	155	-	155
2. Perusahaan Pialang Reasuransi	41	-	41
3. Perusahaan Pembiain Kerugian Asuransi	27	-	27
<b>IKNB</b>	<b>161</b>	<b>81</b>	<b>242</b>
1. Bn Peruh	161	81	242
1. Bn Berbayar	-	-	-
<b>FinTech</b>	<b>95</b>	<b>7</b>	<b>102</b>
1. Bn Peruh	25	7	32
2. Tendatuf	-	-	-
<b>TOTAL</b>	<b>1.194</b>	<b>121</b>	<b>1.275</b>

Keterangan :  
\*Data Full Fledge Syariah  
\*\*Per November 2022, OJK hanya melakukan publikasi terkait PT Danareksa (pensero) tidak lagi diawasi oleh OJK



Source: <https://www.ojk.go.id/id/kanal/iknb/data-dan-statistik/statistik-iknb/Pages/Statistik-IKNB-Periode-Desember-2022.aspx>

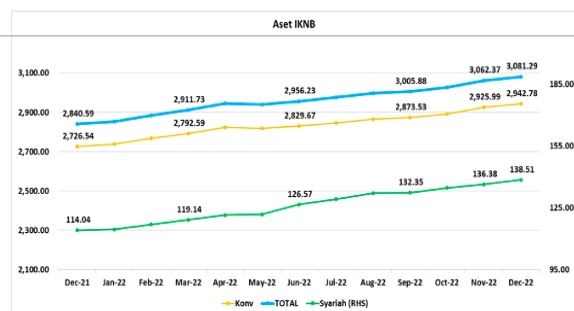
Table 1.1 explains that the number of financing institutions, pension funds, LKK, IKNB supporting services, MFIs and Fintechs for the period December 2021 to December 2022 the number for conventional companies from 1138 to 1154 which means an increase in 16 companies with total assets owned of IDR 401.87 trillion, while Islamic financing companies increased from 120 companies to 121 which means a slow increase with 1 company, Total assets owned amounted to 498.76 trillion. It can be seen in previous data regarding non-bank financial institutions that, one of the factors is related to the inability of multifinance companies related to the requirements regarding equity obligations of at least Rp100 billion in accordance with the provisions of OJK Regulation No.35/2018 concerning the operation of company business. "Finance companies that close certainly have their own considerations and reasons. OJK as a supervisor of the financing industry will certainly see how the multifinance can meet the requirements and comply with the applicable POJK, ".

The Covid-19 pandemic has indeed had a significant impact on the financing business. This is reflected in the increasing ratio of *nonperforming financing (NPF)* of financing companies. However, due to the restructuring policy implemented, the NPF slowly began to show an improvement from the December position of 4.01% and is currently at the level of 3.7%. In addition, the PPnBM discount policy (sales tax on luxury goods) is believed to increase multifinance financing receivables. "With the influx of new financing volumes with new quality, my expectation is that NPF will drop to 3% in a few months later," he said.

Until the end of 2022, OJK has also provided relaxation to finance companies in order to fulfill company liquidity, especially for companies with an equity value of more than IDR 100 billion. The relaxation is based on OJK Regulation Number 58/POJK.05/2020 concerning Amendments to Financial Services Authority Regulation Number 14/POJK.05/2020 concerning *Countercyclical Policy* due to the impact of the spread of *Coronavirus Disease 2019* for Non-Bank Financial Service Institutions. Article 20E states that conventional and sharia finance companies with a minimum equity value of IDR 100 billion can issue debt securities or sukuk (EBUS) without a public offering. Last year, OJK noted that the Non-Bank Financial Industry (IKNB) recorded a slowing trend in performance until December 2022.

**Table 1. 22. Recapitulation of Non-Bank Financial Assets for the December 202 Period 2022**

Komponen	Her 2022		Desember 2022		Total
	Syarat	Total	Konvensional	Syarat	
<b>Aset</b>	<b>45.20</b>	<b>2.271.51</b>	<b>1.738.23</b>	<b>45.02</b>	<b>1.783.27</b>
Asetansi	35.11	635.31	585.86	34.89	620.75
Asetansi Umum	7.74	202.14	196.75	7.73	204.48
Asetansi Syariah	2.35	36.86	33.81	2.41	36.22
Asetansi ASK, Tn/POJOL, Kecelakaan	-	142.80	143.87	-	143.87
Penanggung Umum dan Laku Lintas	-	-	-	-	-
lain	-	-	-	-	-
Asetansi Sosial (BPJS)	-	754.41	757.95	-	757.95
<b>Lembaga Pembiayaan</b>	<b>32.07</b>	<b>636.90</b>	<b>654.66</b>	<b>33.10</b>	<b>647.76</b>
Perusahaan Pembiayaan	21.23	478.25	466.04	21.88	487.92
Modal Ventura	4.18	24.60	21.71	4.23	25.94
PF Infrastruktur	6.64	134.04	126.91	6.99	133.90
<b>Dana Pembiuan</b>	<b>2.24</b>	<b>341.87</b>	<b>342.64</b>	<b>2.25</b>	<b>344.89</b>
OPN-PPNP	0.86	178.50	177.72	0.86	178.58
OPN-PPSP	0.07	43.68	43.42	0.08	43.50
OPK	1.50	119.68	121.50	1.51	123.01
<b>LKK</b>	<b>56.13</b>	<b>287.70</b>	<b>223.51</b>	<b>57.42</b>	<b>280.94</b>
L LPI	8.73	83.63	78.16	8.88	87.03
L Lembaga**	10.89	82.76	65.44	11.15	75.29
L Lembaga Persepsi	5.02	43.30	34.03	5.09	39.12
L PT SMI (Persepsi)	3.76	32.61	29.07	3.87	32.94
L PT PNM (Persepsi)	27.62	45.39	18.12	28.44	46.56
L PT Danantara (Persepsi)	-	-	-	-	-
<b>Ibu Perusahaan</b>	<b>-</b>	<b>17.50</b>	<b>17.50</b>	<b>-</b>	<b>17.50</b>
Praktik Asuransi	-	10.39	10.39	-	10.39
Praktik Reasuransi	-	7.11	7.11	-	7.11
<b>LKN</b>	<b>0.98</b>	<b>2.64</b>	<b>0.86</b>	<b>0.98</b>	<b>2.64</b>
FinTech	0.16	5.65	5.38	0.33	5.51
<b>TOTAL</b>	<b>136.38</b>	<b>3.042.37</b>	<b>2.942.78</b>	<b>138.51</b>	<b>3.081.29</b>



Source: OJK LKNB Statistics

The LKNB in question includes finance companies (*multi finance*), life and general insurance, and pension funds (Dapen), both employer pension funds (DPPK) and financial institution pension funds (DPLK).

According to that (Rensia, 2019) company bankruptcy can occur because the company is experiencing financial problems that are allowed to drag on. Some companies that are experiencing financial problems try to overcome these problems by making loans and business mergers. Before bankruptcy or failure, the company will experience *financial distress*. The company's unpreparedness in predicting *financial distress* is one of the causes of company bankruptcy. The phenomenon of bankruptcy that occurs in non-banking in Indonesia. Based on data from the Deposit Insurance Corporation (LPS), it was recorded that as many as 90 non-banks had been liquidated from 2015 until mid-2018. The majority of liquidated non-bank institutions are multi finance (www.lps.go.id). Bankruptcy that occurs in non-bank financial institutions is caused by company management that is unable to manage the company properly so that the company's planning and management is less than optimal (www.kompas.com) *Financial distress* conditions are conditions where the company's finances are in an unhealthy or crisis state.

According to stating that the Zevgren (Logit) model shows results in 2012-2021 the level of financial risk of BMI (Bank Muamalat Indonesia) is categorized as not bankrupt, the Altman Z-Score model shows results in 2012-2021 with the level of financial risk BMI is categorized as unhealthy or has the potential to experience bankruptcy, (Makhfa, 2022)

**Table 1. 33. Performance of Public Finance Companies as of November 2022**

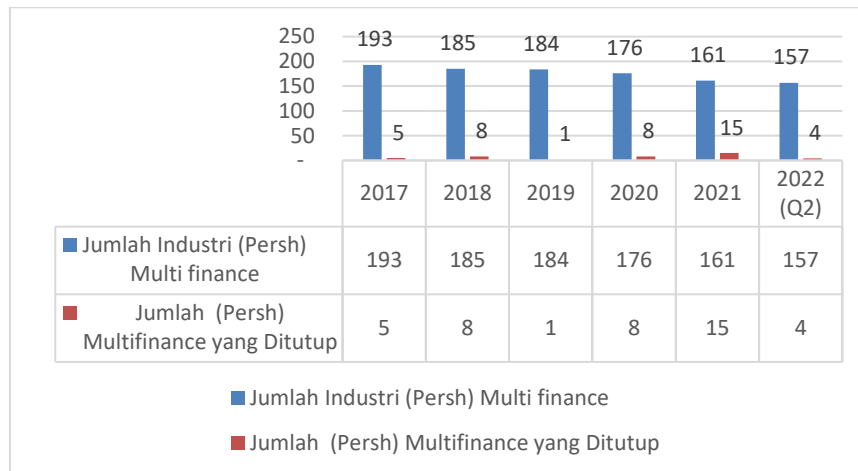
Company Name	Date	Harga / Price			Volume
		High (Rp)	Low (Rp)	Close (Rp)	
1. Adira Dinamika Multi Finance Tbk. (ADMF)	11/30/22	9,250	9,000	9,050	170,300
2. Buana Finance Tbk. (BBLD)	11/30/22	625	580	620	2,300
3. BFI Finance Indonesia Tbk. (BFIN)	11/30/22	1,145	1,105	1,140	25,850,100
4. Woori Finance Indonesia Tbk. (BPFI)	11/30/22	730	710	710	207,100
5. Clipan Finance Indonesia Tbk. (CFIN)	11/30/22	354	336	350	2,302,700
6. Danasupra Erapacific Tbk. (DEFI)	11/30/22	-	-	1,455	-
7. Fuji Finance Indonesia Tbk. (FUJI)	11/30/22	625	600	625	17,500
8. Radana Bhaskara Finance Tbk. (HDFB)	11/30/22	156	149	149	128,300
9. Indomobil Multi Jasa Tbk. (IMJS)	11/30/22	320	306	308	10,206,100
10. PT. Mandala Multifinance Tbk. (MFIN)	11/30/22	1,735	1,675	1,730	34,400
11. Pool Advista Finance Tbk (POLA)	11/30/22	92	88	89	2,708,000
12. KDB Tifa Finance Tbk. (TIFA)	11/30/22	490	484	490	33,100
13. Trust Finance Indonesia Tbk. (TRUS)	11/30/22	440	432	432	1,700
14. Mizuho Leasing Indonesia Tbk. (VRNA)	11/30/22	121	118	118	792,500
15. PT. Wahana Ottomitra Multiartha Tbk. (WOMF)	11/30/22	262	260	262	79,700

**Source: IDXSource: IDX**

Multifinance companies to gain the trust of or customers for consumption (including financing the consumption sector of 2 (two) and 4 (four) wheeled vehicles. The growth of finance

companies in the future is expected to encourage the competitiveness of the manufacturing industry, especially export-oriented. This can be seen from the financing and loans issued by LPEI to the manufacturing industry sector which continues to increase.

The growth of *multifinance* companies between 2017 and 2021 showed a decline according to this table:



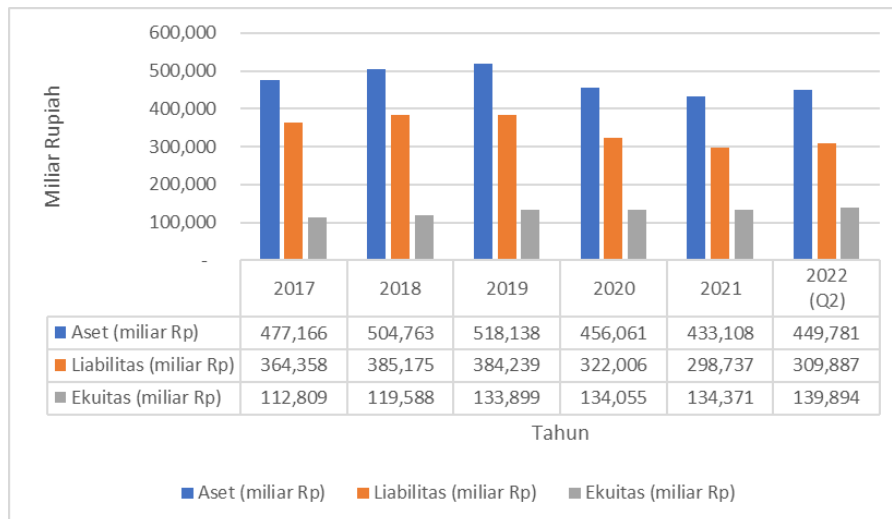
Source: Financial Services Authority (OJK) Statistics, 2022

**Figure 1. 11 Number of multi finance companies still operating in 2017-2021 (Q2-2022)**

For the decrease in the number of *multifinance* companies running their business due to various factors:

1. Competition between financing institutions (*multifinance*) companies.
2. There is a change in the business segment no longer being a *multifinance* company.
3. Poor governance and risk management and the consequences of poor management have an impact on the problem of the statement of financial position which records the company's losses that are enlarged from the previous year's report.
4. Multifinance companies have not met the minimum equity requirements, in accordance with the provisions of OJK Regulation No.35/2018 concerning the operation of company business.
5. Treatment and application of standard statement of financial statements (PSAK) no. 71 Financial instruments and,
6. There was a COVID-19 virus pandemic in early 2020 to 2021.

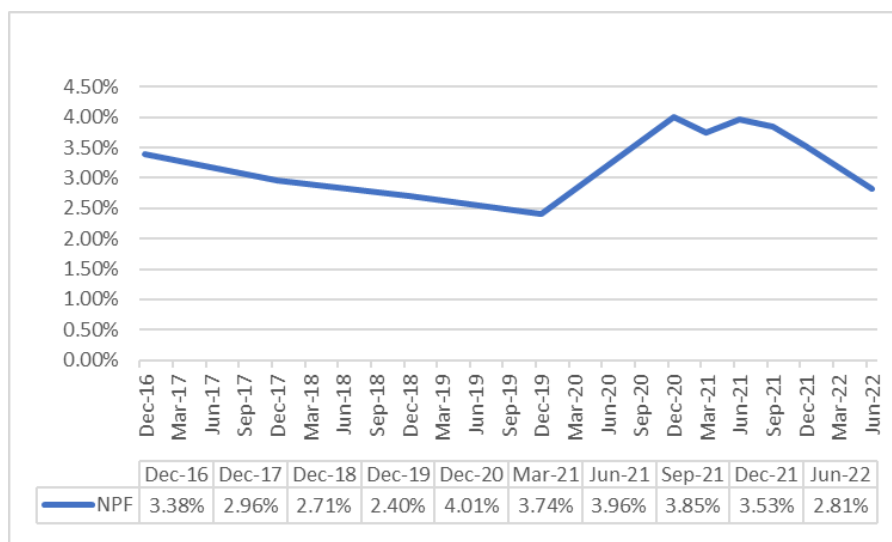
The decline in financial statements between the period 2017 to 2021 can be seen in total assets, total liabilities and total equity, namely:



Source: Financial Services Authority (OJK) Statistics, 2022

**Figure 1. 22 Position of financial statements of multi finance companies for 2017-2021 (Q2-2022)**

An explanation of the position of financial statements for the level of *non-performing financing (NPF)* with fluctuations from 2017 to 2021 will show the level of financial health each year, which can be seen in companies that provide financial statements to the OJK.



Source: Financial Services Authority (OJK) Statistics, 2022

**Figure 1. 3 Non-Performing Financing (NPF) Conditions of Leasing Companies Year 20137 – 2021 (Q2-2022)**

Financial statements aim to provide useful information to investors, creditors and other users, both potential now on making rational investment, credit and other similar decisions. As well as financial statements provide information to assist investors, creditors, and other current and potential users in assessing the amount, timing and uncertainty of *prospective* cash receipts from dividends or interest (in accordance with *the statement of Financial Accounting Concepts No.1*).

Financial statements are also one of the tools to provide financial information to its users both from internal parties and users from outside the company (kieso, et al., 2018). In order for the financial report information to be accepted by all parties, the Financial Accounting Standard Guidelines (PSAK) were prepared. In Indonesia, financial accounting standards are set by the Financial Accounting Association (DSAK/IAI).

Accounting standards in Indonesia currently refer to US GAAP (*United State Generally Accepted Accounting Standard*), Currently changes in each PSAK have adopted International *Financial Reporting Standards* (IFRS) which are not comprehensive, one of which is PSAK 71 Financial Instruments.

DSAK (Financial Accounting Standards Board) stated that PSAK 55 has been replaced with PSAK 71 concerning Financial Instruments and has been effective as of January 1, 2020, where PSAK 71 is an adaptation of IFRS 9 which previously replaced IAS 39. Finance Companies (Non-Bank Financial Institutions or NBFIs), which are entities that have financial asset characteristics, are one of the industries that feel the direct impact of the implementation of PSAK 71. This effect is formed in the impairment loss reserve (CKPN) which was previously based on PSAK 55. The determination of CKPN in accordance with PSAK is presented in the report of a *multi finance* company under *Non Performing Financing (NPF)* Conditions.

The writing of this study accommodates the latest policy changes related to PSAK 71 Financial Instruments, which was implemented in early 2020 and has had an impact on the financial statements of non-bank Finance Companies (NBFI), namely the classification and measurement of impairment reserves (CKPN), as well as accounting for *hedging*. The 2020 financial statements for *multi finance* companies in Indonesia must apply PSAK 71 financial instruments in their financial statements, for financial sector companies, especially financing companies, it is mandatory in accordance with the provisions of the financial services authority and finance companies that are defective on the Indonesia Stock Exchange (IDX).

In previous studies conducted by , , , and , the main focus in predicting potential bankruptcy was on profit management variables and company size. Meanwhile, the study tried a new approach by using asset and capital variables as indicators of bankruptcy prediction. In addition, in a number of other studies, the dominant trend is to compare only one bankruptcy prediction model. In this context, the proposed research has some significant innovations and updates. First, this study proposes the use of financial statement performance measurement variables by evaluating liquidity, solvency, and profitability using various relevant financial ratios. This enriches the factors taken into account in the prediction of bankruptcy. Thus, researchers are interested in raising the topic of this thesis research with the title (Fauzi, Sudjono, & Ahmad, 2021) (Saputra, Hermanto, Zul, & Ikhbal, 2021) (Komarudin, 2019) (Sumendap, Murni, & N. Untu, 2019) (Arsita, 2020) *analysis of financial distress reporting prediction models in multi finance companies in 2017-2021 in Indonesia*

#### Theoretical Study: finance.

In *Financial Intermediation Theory* according to Rose Petter S and (Hudgin Sylvia, 2010) in his book bank management and financial services argue that companies that are financial intermediation is an activity where companies channel funds from surplus parties who have more income, so that the surplus party can lend funds to deficit parties who have a value of liabilities / expenses greater than their income or who requires increasing funds with various purposes such as expansion, investment or even for business capital so decide to make a loan.

In the stock market, investors use the Z-Score for buying or selling decisions of a company. They usually consider buying the stock if the Altman Z-Score value is close to 3% and selling the stock if the value is close to 1.8.(Lord, 2020)

**Research Methods:**

This research is a combined analysis method between quantitative and qualitative methods. Research methods based on the philosophy of positivism, used to examine certain populations or samples, sampling techniques are generally carried out randomly, data collection using research instruments, quantitative or statistical data analysis with the aim of testing hypotheses that have been set.

Get scientific research that examines a problem of a phenomena and looks at possible links or relationships between variables in the problem set. The quantitative method (Wibowo, 2021) is supported by explanatory research that attempts to explain the reasons for phenomena being an observed descriptive study. A predictive study attempts to predict when and under what circumstances an(Winoto, 2020) event will occur.

Data collection is secondary data, namely sources that do not directly provide data to data collectors, for example through document collection, , Data collection techniques used are literature research, namely research where data is not obtained from the field but from libraries or other places that store references, documents that contain data that has been tested for validity. a(Fadli, 2021).

**Results and Discussion:**

Basically, the Altman Z-score model is one of the calculations for bankruptcy prediction, the function owned by Altman Z-Score is a consideration of five financial ratios, namely the ratio of profitability, leverage, liquidity, solvency, and activity, from the 34 finance companies that have been calculated evenly over the last 5 years in a company, then get the results in the following table:

**Table 4. 1. Altman Z-Score Model1**

No	Altman Z-Score Model Results	Number of Companies	Percentage
1	Distress	13	38%
2	Healthy	21	62%
Total		34	100%

Source : Data Results 2023

In the results of the analysis using the Altman Z-Score model, there were 34 companies from 204 samples that were the subjects of the study that had been averaged. Of these, 13 companies or about 38% were declared in financial condition that met the criteria of distress (bankruptcy risk), while 21 companies or about 62% were in healthy financial condition. In other words, most of the companies in the study tend to be financially stable, although a small number of them still need to pay attention to bankruptcy risk. This reflects the importance of good financial monitoring and management for companies in order to mitigate bankruptcy risk and maintain financial stability.

1. Model Springate

Springate is a modified result of the Altman Z-Score, when compared then in this model increases 1 ratio in measuring the company's bankruptcy using financial ratios as a tool

to predict the potential financial difficulties of a company, here are the results that have been calculated:

**Table 4. 2. Springate Model2**

No	Springate Model Results	Number of Companies	Percentage
1	Distress	3	9%
2	Healthy	31	91%
<b>Total</b>		<b>34</b>	<b>100%</b>

Source : Data Results 2023

The results of the analysis using the Springate model of 34 companies showed that about 9% of these companies were in a state of financial distress, while about 91% of the remaining had a healthy financial condition. These results indicate that the majority of companies in this study have good financial stability and are not at risk of significant bankruptcy. However, it should be noted that there are a small number of companies that are still in a situation of financial distress, which requires special attention in their financial management.

In the results of the analysis using the Springate model of 34 companies, about 9% of these companies were in a state of financial distress, while the rest, about 91%, had healthy financial conditions. Thus, the majority of companies that are the subject of research tend to be financially stable, and only a small percentage still face the risk of bankruptcy.

These results underscore the importance of good financial management in maintaining the company's financial stability. Although the majority of companies have healthy financial conditions, they must remain vigilant against potential financial risks that may arise in the future. In addition, companies that are in a financial distress situation need to take corrective action immediately to avoid the risk of further bankruptcy. This analysis provides an important view of the financial condition of the company and can be used as a basis for decision making in effective financial management.

## 2. Model Zmijewski

Zmijewski's bankruptcy model is calculated with 7 financial ratios to assess the health of the company, calculations that have been carried out evenly over the last 5 years at one finance company, then get the results in the following table:

**Table 4. 3. Zmijewski model3**

No	Zmijewski Model Results	Number of Companies	Percentage
1	Distress	11	32%
2	Healthy	22	65%
<b>Total</b>		<b>34</b>	<b>100%</b>

Source : Data Results 2023

In the results of the analysis using the Zmijewski model of 34 companies, about 32% of these companies were in a state of financial distress, while about 65% of the remaining companies had healthy financial conditions. These results underscore variations in the financial condition of the companies that were the subject of the study.

Companies that are in a state of financial distress need to take immediate corrective action in their financial management to avoid the risk of further bankruptcy. On the other hand,

companies with healthy financial conditions must still be aware of potential financial risks in the future and maintain their financial stability.

This analysis provides a more comprehensive picture of the company's financial condition and can be the foundation for making the right decisions in financial management. By understanding the percentage of companies experiencing financial distress, company stakeholders can take the necessary steps to maintain the stability and continuity of their business.

### 3. Model Grover

Similar to the springgate model, the grover model is a modification of the altman Z Score with different financial ratios, calculations that have been carried out evenly over the last 5 years at one finance company, so get the results in the following table:

**Table 4. 4. Grover Model4**

No	Grover Model Results	Number of Companies	Percentage
1	Distress	2	6%
2	Healthy	32	94%
<b>Total</b>		<b>34</b>	<b>100%</b>

Source : Data Results 2023

In the results of the analysis using Grover's model of 34 companies, about 6% of these companies are in a state of financial distress, while about 94% of the rest have healthy financial conditions. These results show that the majority of companies that are the subject of research have good financial stability.

However, even though the majority of companies have healthy financial conditions, companies that are in financial distress must still take immediate corrective action in their financial management. This analysis can provide a view of how well companies are managing their financial risk and the extent to which they have mitigated potential financial problems. Meanwhile, companies with good financial conditions need to maintain their performance and maintain financial stability in order to remain competitive and face potential risks in the future

### 4. Model Ohlson

Olson conducted this study to modify the results of previous research and devise a formula that uses nine financial ratio variables. Calculations that have been done evenly over the last 5 years at one finance company, then get the results in the following table:

**Table 4. 5. Ohlson Model5**

No	Ohlson Model Results	Number of Companies	Percentage
1	Distress	9	26%
2	Healthy	25	74%
<b>Total</b>		<b>34</b>	<b>100%</b>

Source : Data Results 2023

In the results of the analysis using Ohlson's model of 34 companies, about 26% of these companies were in financial distress, while about 74% of the remaining companies had healthy financial conditions. These results indicate variations in the financial performance of the companies that are the subject of the study.

Companies that are in financial distress may need to take immediate corrective action in their financial management, such as reducing debt burdens or increasing profitability. Conversely, companies with good financial conditions need to maintain their stability and continuously strive to optimize financial performance.

#### 5. Model Fulmer

The Fulmer model is an analysis in predicting the failure of a company's financial report with the method of 9 financial ratios, calculations that have been carried out evenly over the last 5 years in one finance company, then get the results in the following table:

**Table 4. 6. Fulmer Model6**

No	Results of the Fulmer Model	Number of Companies	Percentage
1	High financial statement failure	1	3%
2	Low financial statement failure	33	97%
<b>Total</b>		<b>34</b>	<b>100%</b>

Source : Data Results 2023

Results from the Fulmer model show that most of the companies in the sample have either a good success rate in financial statements or a low failure rate in financial statements. This can be interpreted as a positive sign in terms of the quality of the financial statements in the sample. However, it is important to remember that these results are based solely on the "Financial statement failure" category and may not reflect other aspects of the company's performance.

These samples may have specific characteristics that affect the results, and these results need to be further analyzed to understand the underlying factors. Although only one company experiences "high financial statement failure," such problems can have a significant impact on the company's financial health.

#### 6. Model Canada

The Canadian model is used for bankruptcy as a risk that the company still accepts because of the company's uncertainty to continue operating the company because it is unable to manage its finances, calculations that have been done evenly over the last 5 years at one finance company, then get the results in the following table:

**Table 4. 7. Model Canada7**

No	Model Canada Results	Number of Companies	Percentage
1	High financial statement failure	3	9%
2	Low financial statement failure	31	91%
<b>Total</b>		<b>34</b>	<b>100%</b>

Source : Data Results 2023

Results from the Canadian model showed that in a sample of 34 companies, 3 companies or about 9% experienced "high financial statement failures," while 31 other companies, or about 91%, belonged to the category of "low financial statement failures." From these results, it can be concluded that most of the companies in the sample have a relatively high success rate in financial statements, whereas only a few companies face significant challenges in this regard.

Of the 7 models, the one that gets the highest result is the Altman Z-Score as a bankruptcy prediction, this is to ensure that the distribution of data provides normal results and does not cause bias, the reason for using the Z score From the prediction of potential bankruptcy, it can be concluded that the Z Score is a relevant and effective prediction method for assessing bankruptcy risk in the multifinance companies studied. This can be seen from the average Z Score results of these companies.

Z Score is a method developed by Edward I. Altman in 1968 to determine the likelihood of bankruptcy of a company based on several significant financial ratios. This method has been widely used and proven to be quite accurate in predicting potential bankruptcy in various types of companies.

In the analysis, there are companies with a negative Z Score, which indicates a high level of bankruptcy risk. Conversely, companies with a positive Z Score indicate a lower level of bankruptcy risk.

Thus, the Z Score method can help investors, creditors, and company management to identify companies that are high risk and need more attention in managing their financial risks. In addition, companies with a low Z Score can also use this information as a trigger to take corrective steps in an effort to reduce the risk of bankruptcy.

### 1.1 Descriptive Statistics

The analysis of bankruptcy potential is in accordance with that used related to 7 measurement models and Z Score analysis that has been selected as data processing, besides that the dependent variables used are liquidity, solvency, and reliability, while the results of data processing can be seen as follows.

**Table 4. 8. Descriptive Statistics<sup>8</sup>**

No	Variable	N	Threshold		Mean	Std. Deviation
			Min	Max		
1	Liquidity	170	1.830	2.334	0.891	0.319
2	Solvency	170	1.353	3.326	2.738	1.725
3	Profitability	170	1.028	2.090	2.248	1.842
4	Potential Bankruptcy	170	0.019	1.994	1.873	1.312

Source : Data Results Processed by Eviews 2023

In the liquidity variable with the *current ratio*, the minimum value is 1.830, the maximum value is 2.334, the average value is 0.891, and the standard deviation is 0.319 with the number of observational data 170. The average value is greater than the standard deviation, which indicates a fairly good result. This is to ensure that the distribution of data provides normal results and does not cause bias.

In the Solvency Variable by delinquent *Debt to Equity Ratio* (DER), the minimum value is 1,353, the maximum value is 3,326, the average value is 2,738, and the standard deviation is 1,725 with a total of 170 observational data. The average value is greater than the standard deviation, which indicates a fairly good result. This is to ensure that the distribution of data provides normal results and does not cause bias.

In the Profitability Variable by waiting Return On Asset Ratio (ROA), the minimum value is 1,028, the maximum value is 2,090, the average value is 2,248, and the standard deviation is 1,842 with the number of observational data 170. The average value is greater than the standard deviation, which indicates a fairly good result. This is to ensure that the distribution of data provides normal results and does not cause bias.

In the Bankruptcy Potential Variable using the Z Score, the minimum value is 0.019, the maximum value is 1.994, the average value is 1.873, and the standard deviation is 1.312 with the number of observation data 260. The average value is greater than the standard deviation, which indicates a fairly good result.

Based on the table above, it can be seen that the results of the statistical test t on the variable X2 obtained the value of t calculated  $>$  t table ( $0.88 > 0.69$ ) and the significance of  $<$  0.05 ( $0.03 < 0.05$ ), so there is a significant positive influence. This means that solvency affects the potential for bankruptcy. Which means H2 is accepted and H0 is rejected. In a managerial context, the implication of these findings is the importance of company management to pay close attention and monitor their solvency levels. Maintaining a healthy level of solvency can help reduce the risk of potential bankruptcy and ensure the long-term viability of the company.(Makhfa, 2022)

In addition to finding a statistical relationship between solvency and potential bankruptcy, it is important to conduct a more in-depth causal analysis. Consider factors that might influence the relationship, such as interest rates, market conditions, or industry structure. This can help understand the mechanisms behind the relationship.

**There is a significant positive effect of profitability on the potential for bankruptcy.**

Based on the table above, it can be seen that the results of the statistical test t on variable X3 obtained the value of t calculated  $>$  t table ( $6.11 > 0.69$ ) and significance  $<$  0.05 ( $0.04 < 0.05$ ), so there is a significant positive influence. This means that profitability affects the potential for bankruptcy. Which means that H2 is accepted and H0 is rejected, it is in line with previous research, namely , and that protibility is a major influence in financial statements so that the risk of failure of financial statements is necessary in avoiding bankruptcy.(Weygandt, 2018)(Purnamasari, 2021)

In a managerial context, the implication of these findings is the importance of company management to pay attention and improve their level of profitability. This can be achieved through efforts to improve operational efficiency, optimize cost management, improve marketing and sales strategies, and develop product and service innovations.

**Conclusion:**

Based on the explanation of the results of the research analysis, the following conclusions were obtained:

1. Bankruptcy analysis of the 7 models found that the altman Z Score is the best, because the calculation results get the highest risk and get a sustainable amount, therefore the use of altman Z Score as the first theory that has been developed by several experts is still relevant, because the assessment considers liquidity, solvency and profitability as the main key.

2. Liquidity is an obligation that must be paid, in controlling it company management needs to pay attention to the company's liquidity level by ensuring the availability

of sufficient current assets to meet short-term obligations. By increasing liquidity, companies can deal with possible liquidity crises and avoid the risk of default. Furthermore, cash and receivables management needs to be optimized to reduce collection time and improve the company's cash flow. Companies may also consider strategies such as reducing unproductive inventory to increase liquidity.

3. Solvency itself is important for company management to maintain a balance between sources of equity and debt funding so that the solvency level remains healthy. Companies must ensure that interest expenses and debt obligations remain under control, in addition to managing company debt needs to be done carefully to avoid being trapped in excessive situations, which can increase the risk of bankruptcy if unable to meet debt obligations.

4. Profitability is actually optimizing operations, reducing costs, and increasing the efficiency of resource use, in making business decisions, companies must consider factors that can affect profitability, such as product prices, sales volumes, and marketing strategies

#### Bibliography:

- [1] Adira. (2020, 07 01). *Adira Multitfinance*. Retrieved from <https://www.adira.co.id/>
- [2] Almashhadani, M. &. (2022). The impact of ownership on profitability: An conceptual study. *International Journal of Business and Management Invention*, 11(6), 01-06.
- [3] Almashhadani, M. &. (2022). The impact of ownership on profitability: An conceptual study. . *International Journal of Business and Management Invention*, 11(6), 01-06.
- [4] Amankwah-Amoah, J. K. (2021). COVID-19 and business failures: The paradoxes of experience, scale, and scope for theory and practice. . *European Management Journal*, 39(2), , 179-184.
- [5] Aprilia, A. &. (2020). Analysis of the Effect of Liquidity Ratio, Operating Efficiency, and Solvency Ratio on Financial Performance at PT Bank Maybank Indonesia Tbk for the 2010-2018 Period. . *KEUNIS*, 8(2), 167-186.
- [6] Arini, I. N. (2021). Accurate Analysis of Financial Distress Prediction Models. . *Journal of Management Science*, 9(3), 1196-1204.
- [7] Arsita, Y. (2020). Financial ratio analysis to measure the financial performance of PT Sentul City, Tbk. *Journal of Management Education and Social Sciences*, 2(1), 152-167.
- [8] Asmawati, D. (2022, 12 10). The effect of accounting profits, company size, and cash flow on manufacturing company stock returns (doctoral dissertation). Surabaya.
- [9] BPS. (2020, 01 05). *Central Bureau of Statistics*. Retrieved from <https://www.bps.go.id/>
- [10] Brilianto, Z., & Efendi, D. (2022). THE EFFECT OF THE APPLICATION OF PSAK 71 ON THE PRESENTATION AND MEASUREMENT OF THE COMPANY'S FINANCIAL STATEMENTS (CASE STUDY ON THE FINANCIAL STATEMENTS OF PT. XYZ). *Journal of Accounting Science and Research*.
- [11] Chen, W.-S. (2021). Using neural networks and data mining techniques for the financial distress prediction model. *Expert Systems with Applications*.
- [12] Devi, S. W. (2021). A comparison between PSAK 71 and PSAK 55 in the banking industry. . *Journal of Economics and Business*, 24(1), , 173-188.

- [13] Dirman, A. (2020). Financial distress: the impacts of profitability, liquidity, leverage, firm size, and free cash flow. *International Journal of Business, Economics and Law*, 22(1), 17-25.
- [14] Fadli, M. R. (2021). Understand the design of qualitative research methods. . *Humanika, Scientific Studies General Course*, 21(1), 33-54.
- [15] Fauzi, S. E., Sudjono, & A. B. (2021). Comparative Analysis of Financial Sustainability Using the Altman Z-Score, Springate, Zmijewski and Grover Models for Companies Listed at Indonesia Stock Exchange Sub-Sector Telecommunication Period 2014–2019. *SSRN*.
- [16] Firmansyah, A. R. (2022). Profit management before and after the implementation of PSAK 71 in banking subsector companies in Indonesia. Owner: . *Research and Journal of Accounting*, 6(2), 1363-1372.
- [17] Habib, A. C. (2020). *Determinants and consequences of financial distress: review of the empirical literature*. Willey.
- [18] Halim. (2021). *Financial statement analysis*. Jakarta.
- [19] Haralayya. (2021). Financial statement analysis of shri ram city union finance. *Iconic Research And Engineering Journals*, 4(12), 183-196.
- [20] Hertina, D. &. (2020). Comparative Analysis Of The Altman, Springate, Grover And Zmijewski Models As Predicting Financial Distress. . *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(5), 552-561.
- [21] Holingue, C. B.-G. (2020). Mental distress during the COVID-19 pandemic among US adults without a pre-existing mental health condition: Findings from American trend panel survey. *Prventive Medicine*, 139.
- [22] Ilat, V. S. (2020). Evaluation of the Application of PSAK 71 Regarding Financial Instruments at PT. Sarana Sulut Ventura Manado. Going Concern: . *Journal of Accounting Research* 15(3), 514-520.
- [23] Indriastuti, A. M. (2020). The Effect of Liquidity Ratio, Solvency Ratio, and Activity Ratio on the Company's Financial Performance. *Journal of Managerial and Entrepreneurship*, 2(4), 855-862.
- [24] Irianti, T. E. (2021). The effect of working capital efficiency, liquidity, and solvency on profitability in food and baverage companies listed on the Indonesia Stock Exchange (2012-2018 period). *BISECER (Business Economic Entrepreneurship)*, 4(2), 1-7.
- [25] Izdihar, D. F. (2021). ANALYSIS OF THE VALUE OF FOOD AND BEVERAGES COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE. . *Journal of Economics Development Issues*, 4(2), 501-510.
- [26] Januarsah, I. J. (2019). The effect of production costs and marketing costs on company profits at PT PP London Sumatera Indonesia, Tbk which is listed on the Indonesia Stock Exchange. . *Financial: Journal of Accounting*, 5(1), 32-39.
- [27] Kawakami, R. S. (2021). Pathological evidence for SARS-CoV-2 as a cause of myocarditis: JACC review topic of the week. *Journal of the American College of Cardiology*, 77(3), 3.
- [28] Kholifah, N. D. (2020). Measuring Financial Distress Using Grover, Altman Z-Score, Springate and Zmijewski Method at Pt Solusi Bangun Indonesia Tbk. *Scientific Journal of Edunomika*, 4(02)., 10.

- [29] Komarudin. (2019). COMPARATIVE ANALYSIS OF FINANCIAL DISTRESS PREDICTIONS OF GROVER, ALTMAN, SPRINGATE, ZMIJEWSKI, AND OHLSON METHODS IN MINING COMPANIES ON THE IDX. *UNICEF Journal of Economics and Business*.
- [30] Kua, W. D. (2021, 08 18). The Effect of Liquidity, Operating Cash Flow Leverage and Sales Growth on Financial Distress (Doctoral dissertation, STIE Perbanas Surabaya). Surabaya.
- [31] Kurniawan, M. A. (2021). COVID-19 Pandemic and Bankruptcy Prediction: Did Financial Conditions Before 2020 Play a Role? *Journal of Accounting*, 12-22.
- [32] Kustina, K. T. (2021). Implementation of PSAK 71st January 2020 and banking profitability in Indonesia. . *Scientific Journal of Accounting and Business*, 44-52.
- [33] Li, S. S. (2021). A deep learning-based approach to constructing a domain sentiment lexicon: a case study in financial distress prediction. *Information Processing & Management*, 58(5), 102673.
- [34] Loen, M. (2021). The effect of financial distress and leverage on accounting conservatism in manufacturing companies in the consumer goods industry sector listed on the Indonesia Stock Exchange for the 2016-2019 period. . *Krisnadwipayana Journal of Accounting and Business* (8)2, 10.
- [35] Lord, J. L.-M. (2020). Predicting nursing home financial distress using the Altman Z-Score. Inquiry: T. *he Journal of Health Care Organization, Provision, and Financing*, 57, , 0046.
- [36] Lumantow, I. P. (2022). Analysis of Solvency and Profitability Ratios in Insurance Sub-Sector Companies Listed on the Indonesia Stock Exchange in 2018-2020. *EMBA Journal: Journal of Economic, Management, Business and Accounting Research* (10)3, 458-465.
- [37] Makhfa. (2022, 01 25). ANALYSIS OF BANKRUPTCY PREDICTION AND ACCURACY OF ZEVGEN (LOGIT), ALTMAN (Z-SCORE) AND GROVER MODELS AT BANK MUAMALAT INDONESIA IN 2012-2021. Lampung, Lampung.
- [38] Nurmasari, I. (2020). The impact of covid-19 on changes in stock prices and transaction volumes. . *Journal of securities*, 3(3), 230-236.
- [39] OJK. (2020, 01 10). *Financial Services Authority*. Retrieved from CHAPTER IX CONCLUDING PROVISIONS Article 34: <https://ojk.go.id/id/regulasi/Documents/Pages/Kualitas-Aset-Produktif-dan-Pembentukan-Penyisihan-Penghapusan-Aset-Produktif-Bank-Perkreditan-Rakyat/pojk%2033-2018.pdf>
- [40] Owusu-Manu, D. G. (2022). Mitigating Factors of Financial Distress Causalities of Project Performance in Ghana. . *Journal of Infrastructure Systems*, 28(3), 05022004.
- [41] ÖZPARLAK, G. (2022). Validity Analysis of Financial Failure Prediction Models During the Covid-19 Pandemic. *DergiPark*.
- [42] Palm, A. (2020). Early adopters and their motives: Differences between earlier and later adopters of residential solar photovoltaics. . *Renewable and Sustainable Energy Reviews*, 133.
- [43] Pangkey, I. D. (2022). Comparative Analysis of Financial Performance of Pt. Bpr Nusa Utara Before and During the Covid-19 Pandemic (2018-2020). *EMBA Journal: . Journal of Economic Research, Management, Business and Accounting*, 10(1)., 18.

- [44] Panigrahi, A. (2019). Validity of Altman's 'Z' Score Model in Predicting Financial Distress of Pharmaceutical Companies. *Social Science Research Network*.
- [45] Prabu Rizal, A., & R. Shauki, E. (2019). MOTIVE AND OBSTACLE BANK AS EARLY ADOPTERS OF PSAK NO. 71 FOR ALLOWANCE FOR IMPAIRMENT LOSSES (CKPN) OF LOAN. *Indonesian Journal of Accounting and Finance*.
- [46] Prameswari, A., Yunita, I., & Azhari, M. (2018). BANKRUPTCY PREDICTION USING THE ALTMAN Z-SCORE, SPRINGATE AND ZMIJEWSKI METHOD ON DELISTED COMPANIES ON THE INDONESIA STOCK EXCHANGE (IDX). *Journal of Contemporary Accounting Research*.
- [47] Purnamasari, D. I. (2021). ANALYSIS OF BANK SOUNDNESS LEVEL USING RGEC METHOD BEFORE AND AFTER THE IMPLEMENTATION OF PSAK 71. *International Journal of Research*, 9(9), 71-78.
- [48] Rafatnia, A., & Kharismanan. (2020). Financial Distress Prediction across Firms. *Semantic Schooler*.
- [49] R. (2021). Analysis of the implementation of PSAK 71 on impairment loss reserves (Case Study at PT Bank XYZ Tbk). *Accounting: Journal of Integrative Accounting*, 7(1), 16.
- [50] Rahayu, D. (2021). Analysis of the implementation of PSAK 71 on impairment loss reserves (Case Study at PT Bank XYZ Tbk). *Journal of Integrative Accounting*, 7(1).
- [51] Rahayu, D. (2021). Analysis of PSAK 71 Implementation of Impairment Loss Reserves (Case Study at PT Bank XYZ Tbk). *Journal of Integrative Accounting*.
- [52] Rahayu, R. Y. (2022). Analysis of Implementation of PSAK 71 at the Regional Development Bank. In 3rd Progress in Social Science, *Humanities and Education Research Symposium (PSSHERS 2021)*, (p. (pp. 398). Kuala Lumpur.
- [53] Ratnawati, Y. &. (2020). The Effect of Profit Management and Financial Performance on Bond Ratings (Case Study on Banking Financial Institutions on the Indonesia Stock Exchange). *Jca (Journal of Accounting Scholars)*, 1(1), 18-27.
- [54] Rensia, R. &. (2019). AFFECT THE RATIO OF CASH FLOW TO THE PREDICTION OF FINANCIAL DISTRESS CONDITIONS IN FINANCIAL SECTOR SERVICE COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE. *Journal of Research and Accounting*, 04.
- [55] Rizal, A. P. (2019). Motive and Obstacle Bank As Early Adopters of PSAK No. 71 for Allowance for Impairment Losses (CKPN) of Loan. *Journal of Accounting and Finance (16)1*, 15.
- [56] Rustiyana, S. R. (2022). Analysis of Solvency Ratio (DAR, DER, TIE) to Financial Performance of Companies in the Financial Sector (PT Adira Dinamika Multi Finance Tbk and PT BFI Finance Indonesia Tbk for the 2016-2020 Period). *Journal of Business, Management and Accounting* 9(1), 72-79.
- [57] Sapta, A. W. (2019). Implementation of the Statement of Financial Accounting Standards (PSAK) on Murabahah Transactions (Case Study at Sharia Banks in Indonesia). *VOK@ SINDO: Journal of Applied Sciences and Real Works*, 7(2), 148-173.
- [58] Saputra, I., Hermanto, W. C., Z. A., & I. A. (2021). BANKRUPTCY ANALYSIS USING ALTMAN Z-SCORE, SPRINGATE, ZMIJWESKI, FOSTER, AND GROVER METHODS AT BANK MANDIRI Tbk. *Research Accounting Journal*.

- [59] Sari, N. R. (2020). Detecting financial distress with Altman's Z-Score model (Study on major sector companies listed on the Indonesia Stock Exchange). *Scientific Journal of Accounting and Humanities*, 10(1), 93-102.
- [60] Sari, P. A. (2022). *Financial Statement Analysis*. Bojongsari: Eureka.
- [61] Literati, K. P. (2022). Analysis of the Potential for Bankruptcy Using the Modified Altman Z-Score Model and Springate Model and Audit Opinion as a Comparison of Accuracy in IDX-Listed Transportation Companies. *Journal of Professional Accounting (13)1*, 125.
- [62] Sensini, L. (. (2020). Working capital management and performance: evidence from Italian SME's. . *International Journal of Business Management and Economic Research (IJBMER)*, 1749-1755.
- [63] Sepehrizadeh, T. J. (2021). PET/MRI in paediatric disease. . *European Journal of Radiology*, 109987.
- [64] Setkab. (2023, 04 03). *Setkab*. Retrieved from <https://setkab.go.id/peran-lembaga-keuangan-non-bank-dalam-mendukung-sektor-pertanian/>
- [65] Silalahi, D. E. (2020). The Indonesian government's fiscal policy strategy to regulate state revenues and expenditures in the face of the Covid-19 pandemic. . *Jesya (Journal of Islamic Economics and Economics)*, 3(2), 156-167.
- [66] Silviani, F. P. (2020). The role of good corporate governance mechanisms in preventing companies from experiencing financial distress. . *Balance sheet*, 16 (1) , 14-26 .
- [67] Situngkir, J. R. (2022, 12 01). THE EFFECT OF THE IMPLEMENTATION OF INTERNATIONAL FINANCIAL REPORTING STANDARDS ON THE COMPANY'S FINANCIAL PERFORMANCE IN PUBLIC LISTED COMPANIES ON THE INDONESIA STOCK EXCHANGE (IDX). Jakarta.
- [68] Sugianto, N. (2021). The Role of the Board of Commissioners: Determinants in Predicting Bankruptcy Financing Company. *IJOBEX*.
- [69] Sugiyono. (2017). *Research Methods*. In Sugiyono. Jakarta.
- [70] Sugiyono, S. &. (2021). *Communication Research Methods (Quantitative, Qualitative, and Easy Ways to Write Articles in International Journals)*. Yogyakarta.
- [71] Sumendap, R., Murni, S., & N. Untu, V. (2019). COMPARISON OF FINANCIAL PERFORMANCE USING THE ALTMAN Z-SCORE AND SPRINGATE S-SCORE METHODS (IN THE CEMENT INDUSTRY ON THE IDX FOR THE 2014-2018 PERIOD). *EMBA Journal : Journal of Economic Research, Management, Business and Accounting*.
- [72] Susanto, H. (2019). Financial ratio analysis to measure the financial performance of the local government of Mataram City. . *Journal of Distribution-Journal of Management and Business Sciences*, 7(1), 81-92.
- [73] Swalih, M. A. (2021). A study on the financial soundness of Indian automobile industries using Altman Z-Score. . *Accounting*, 7(2), , 295-298.
- [74] Tambunan, M. R. (2020). A note to transfer pricing audit performance by Indonesia's tax administration based on tax court decision 2015-2019 on manufacturing industry. *Indonesian Journal of Accounting and Auditing*, 85-96.
- [75] Ullah, H. W. (2021). Association of financial distress and predicted bankruptcy: The case of Pakistani banking sector. . *The Journal of Asian Finance, Economics and Business*, 8(1), 573-585.

- [76] Weygandt, J. J. (2018). *Financial Accounting with International Financial Reporting Standards* . . John Wiley & Sons.
- [77] Wibowo, A. T. (2021). The influence of profitability, investment opportunities, managerial ownership and institutional ownership on dividend policy (study on companies in the consumer goods industry sector listed on the Indonesia Stock Exchange for the period 2015-2018. *e-proceeding of management* 8(2).
- [78] Winoto, Y. &. (2020). Study on the quality of I-BAGENDIT digital services and its relationship with the image of the Library and Archives Office of Garut Regency, West Java Province: An explanatory survey study. . *IJAL (Indonesian Journal of Academic Librarianship* 4(1), 1-14.
- [79] Yomima, R. W. (2021). FINANCIAL FEASIBILITY INVESTMENT PROPERTY SHOP DEVELOPMENT (CASE STUDY AT CEMPAKA PUTIH RUKO IN BECORA-DILI). . *STIE Mandala* (pp. 64-74). E-PROCEEDINGS STIE MANDALA.
- [80] Jonah, Y. (2021, 12, 10). Analysis of the Bankruptcy Rate of PT. Garuda Indonesia (Persero) Tbk (Doctoral dissertation, MAKASSAR STATE UNIVERSITY). Makasar.
- [81] Гулієв, В. (2022). PROBLEMS OF CLASSIFICATION AND VALUATION OF FINANCIAL ASSETS. *Financial and credit activity problems of theory and practice*, 1(42), 162-172.