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Financial Distress Analysis with Zmijewski X-Score Method in Islamic Banking Companies (Case Study of the Indonesia Stock Exchange)

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ABSTRACT

Financial distress or financial difficulty is a situation where the company's financial position has decreased so that the company is unable to meet its short-term debt and long-term debt obligations, so it is necessary to analyze the company's finances in order to see the condition of the company. this study aims to analyze the level of bank health using the *zmijewski x-score* method at Islamic banks listed on the Indonesia Stock Exchange for the period 2021-2023. This study uses a descriptive quantitative method whose data sources come from secondary data in the form of financial reports of Islamic banks listed on the Indonesia Stock Exchange for 2021- 2023 with a sampling technique using saturated sampling. The results of this study indicate that the health level of Islamic banks on the Indonesia Stock Exchange (IDX) which is analyzed using the *zmijeski x-score* method for the 2021-2023 period with the *zmijewski* model which has a *cut off* value of 0, with assessment criteria if the company's *financial distress* prediction score is less than 0 (X < 0), then the company is in a *non-financial distress* or healthy zone. Meanwhile, if the company's *financial distress* prediction score is more than 0 (X> 0), then the company is predicted to enter the *financial distress* zone or go bankrupt. In general, the level of bank health during the 3 periods was in a healthy condition *(nonfinancial distress)*. Thus, a good level of bank health reflects a healthy Islamic bank so that it can be considered capable of dealing with significant negative influences from business conditions and other factors.

INTRODUCTION

The banking industry has experienced rapid development in recent times. Banks are considered as the driving force of the economy of a country. This is based on the function of banks as financial institutions, experts say that the banking function is the mediation of the financial sector on the liaison of parties with *surplus funds* (*surplus* funds) with parties who lack funds (deficit funds), because in general banks collect funds (finance) and channel funds (finance) to those in need. That is why it is often said that banks are financial mediation. Besides being a financial mediation, banks have a function as service providers, such as transfers, inkaso, clearing and so on.[1]

To see the development of Islamic banks in Indonesia, we can see from the Islamic banking office network. The following is a table of Islamic banking office networks in Indonesia.

Islamic banking office network

Indicator	Year		
	2021	**2022**	**2023**
Islamic Commercial Bank	2. 035	2.007	1.967
Syariah Business Unit	444	438	426
Islamic People's Financing Bank	659	668	693

Data Source: Financial Services Authority (OJK), Islamic Banking Statistics

Based on the analysis of the table above, it is explained that there have been significant changes in the Islamic banking office network in Indonesia over the past few years in 2021-2023 registered by the Financial Services Authority (OJK) In 2021 the number of Islamic Commercial Bank (BUS) branch offices reached 2,035, but decreased in 2022 which amounted to 2,007 until 2023 with a total of 1,967, as well as Sharia Business Units (UUS) which continued to experience a decline in office networks from 2021-2023, where in 2021 there were 444 while in 2023 there were only 426. The decrease in the number of Islamic banks in 2021 was due to the merger of three Islamic banks owned by State-Owned Enterprises (BUMN). Namely PT Bank Negara Indonesia Syariah (BNIS), PT Bank Rakyat Syariah (BRIS) and PT Bank Syariah Mandiri (BSM).[2] In addition, the covid-19 pandemic that occurred in 2019 until it ended on June 21, 2023 in accordance with the decision of the President of the Republic of Indonesia Mr. Joko Widodo which determined the end of the Corona Virus Disease 2019 (COVID-19) pandemic status as an endemic disease in Indonesia.[3] So that covid-19 is the cause of the world economy, especially Indonesia, experiencing a decline in economic performance and even some companies experiencing financial difficulties that cause employee termination and unavoidable company bankruptcy.[4] Therefore, the decline in the number of branches due to movement restrictions, which can be attributed to the easing of mobility restrictions, reflects the impact of the pandemic on the development of Islamic banking office networks in Indonesia.[5] Meanwhile, Sharia People's Financing Banks (BPRS) continued to experience an increase in the number of office networks from 2021-2023, which in 2021 amounted to 659 while in 2023 amounted to 693, which increased Islamic financial literacy and inclusion helped drive demand for Islamic banking products and services, especially in the BPRS sector which recorded an increase in the number of offices. In addition, the adoption of digital technology in Islamic banking enables network expansion without opening new physical offices, especially through digital banking services such as mobile banking and internet banking.[6] However,

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[1] Wiroso, *Produk Perbankan Syariah*, *LPFE Usakti* (Jakarta Barat: LPFE Usakti, 2011).

[2] Yultriani Rantemangiling, Elko L Mamesah, and Donna O Setiabudhi, "Analisis Yuridis Mengenai Merger Bank Syariah Mandiri, Bri Syariah, Dan Bni Syariah Menjadi Bank Syariah Indonesia (BSI)," *Lex Crimen* 11, no. 5 (2022).

[3] Sekretariat kabinet Republik Indonesia, "Penetapan Berakhirnya Status Pandemi Corona Virus Disease 2019 (COVID-19) Di Indonesia," 2023.

[4] Andi Tenri Uleng Akal, Sri Wahyuni Nur, and Nurlela, "Pengaruh Interest Rate Dan Financial Distress Terhadap Stock Return," *E-QIEN Jurnal Ekonomi Dan Bisnis* 9, no. 2 (2022).

[5] Nabilatun Nada, "Dinamika Lembaga Dan Aset Lembaga Perbankan Syariah Di Indonesia (Total Lembaga Dan Aset 2019 – Mei 2023)," *Jurnal Ilmiah Ekonomi Islam* 10, no. 1 (2024).

[6] Nada. Nabilatun Nada, "Dinamika Lembaga Dan Aset Lembaga Perbankan Syariah Di Indonesia (Total

on the other hand, one of the causes of the reduction of Islamic Commercial Banks (BUS) and Islamic Business Units (UUS) in Indonesia from 2021-2023 is financial distress.[7] Which means that the lack of income generated by the business is one of the reasons for the lack of public interest in using Islamic products or even the lack of public understanding of Islamic Commercial Banks (BUS) and Islamic Business Units (UUS).

According to Thomas Sumarsan goh, financial distress is a situation where the financial health of an organization is in crisis. The term financial distress has been used to describe circumstances when an organization's working capital and long-term assets are insufficient to meet its short-term obligations. This can be caused by various reasons such as poor cash flow, overspending, or lack of funds from external sources.[8] Therefore, it is important for Islamic banking companies to be able to identify and predict potential financial distress as early as possible in order to take appropriate preventive and corrective actions. This way, financial statements can provide metrics that can indicate whether the company is experiencing financial difficulties or is at risk of entering financial distress. By monitoring these indicators on a regular basis, management, investors and creditors can make more informed decisions in the face of potential corporate financial problems. The following is a table showing the financial performance of banking companies listed on the Indonesia Stock Exchange (IDX) during the 2021-2023 period.

Financial statements of Islamic banking companies listed on the Indonesia Stock Exchange (IDX) for 2021-2023 (presented in rupiah)

Bank Name	Year	Total Assets	Liabilities	Equity	Net Profit /Loss
PT Bank Aladin Syariah Tbk.	2021	2,173,162	88,651	1.046.327	-121,275
	2022	4,733,401	795,476	3.143.276	-264,913
	2023	7,092,120	751,880	3.085.241	-226,738
PT Bank Panin Dubai Syariah Tbk.	2021	14,426,005	727,197	2.301.945	-818,112
	2022	14,791,738	2,015,192	2.505.404	250,532
	2023	17,343,247	4,006,195	2.788.523	244,690
PT Bank BTPN Syariah Tbk.	2021	18,543,856	2,543,053	7.094.900	1,465,005
	2022	21,161,976	2,910,720	8.407.997	1,779,580
	2023	21,435,366	2,737,413	8.777.133	1,080,558
PT Bank Syariah Indonesia Tbk.	2021	265,289,081	61,886,476	25.013.934	3,028,205
	2022	305,727,438	73,655,791	33.505.610	4,260,182
	2023	353,624,124	87,222,911	38.739.121	5,703,743

Lembaga Dan Aset 2019 – Mei 2023)," *Jurnal Ilmiah Ekonomi Islam* 10, no. 1 (2024).

[7] M. Rizki Nurhuda dan Mughammad Aris Safi'i, "Prediksi Financialk Distress Bank Syariah Di Indonesia Dengan Analisis Risk-Based Bank Rating," *Velocity , Journal Of Sharia Finance and Banking* 3, no. 2 (2023).

[8] Thomas Sumarsan Goh, *Monograf : Financial Distress*, *Indomedia Pustaka* (Sidoarjo: Indomedia Pustaka, 2023).

Based on the analysis of the table above, it is explained that there have been significant changes that vary from the financial statements of Islamic banking in Indonesia over the past few years from 2021 to 2023 listed on the Indonesia Stock Exchange (IDX), where all of these Islamic banking companies from year to year have an increasing number of assets as well as the number of liabilities continues to increase except for PT. Bank Aladin Syariah Tbk in 2023 which amounted to 751,880 from 2022 which amounted to 795,476 and also PT. BTPN Syariah Tbk in 2023 experienced a decrease in liabilities totaling 2,737,413 from 2022 which amounted to 2,910,720. But on the other hand, PT Panin Dubai Syariah Bank Tbk and PT Bank Syariah Indonesia have a total company liability greater than the amount of equity owned by the company, which means that most of the processing of company activities is paid from company debt. For the amount of equity, it also continues to increase every year except for PT. Bank Aladin Syariah Tbk in 2023 which amounted to 3,085,241 from 2022 which amounted to 3,143,276. For the net profit generated by the company at PT Bank Aladin Syariah Tbk has never experienced a profit but continues to experience a loss where the amount of net loss increased in 2022 and decreased in 2023 which amounted to (226,738) from 2022 which amounted to (264,913), while at PT. Bank Panin Dubai Syariah Tbk, the profit generated varies where in 2021 it experienced a net loss of (818,112), but in 2022 it experienced a significant increase in profit which amounted to 250,532, but in 2023 it again experienced a decrease in net profit which amounted to 244,690 from the previous year. For PT BTPN Syariah Tbk, it experienced an increase in profits from 2021 to 2022, but again decreased in 2023 which amounted to 1,080,558 from 2022 which amounted to 1,779,580. while at PT Bank Syariah Indonesia (BSI) continues to experience an increase in profits from 2021 to 2023, some Islamic banks still vulnerable being categorized *as*. If Islamic banks cannot overcome the unhealthy level, bankruptcy increase. Therefore, it necessary identify the risks early possible to prevent possibility *distress*.

METHOD

The research approach used by researchers in this study is a descriptive approach, using quantitative research. The descriptive approach is to define the state of a symptom that has been recorded through a measuring instrument and then processed according to its function. The results of the processing are then presented in the form of numbers so that it gives the impression that it is easier to capture its meaning by anyone who needs information about the existence of these symptoms.[9] While the type of research used in this research is quantitative data research. Quantitative data is data in the form of numbers, either expressed nominally or proportionally. Quantitative data is data that substantively has quantity or is quantitative in nature.[10] So the quantitative descriptive approach is a research approach that collects, compiles, classifies, and interprets data so that it can find out a clear picture of the problem under study. Which data or information taken from the author in this study is in the form of numbers or numbers taken from secondary data of financial statements including balance sheets and income statements. The population used by the author is 4 Islamic banking companies listed on the Indonesia Stock Exchange (IDX) for 2021-2023, namely PT. Bank Aladin Syariah Tbk, PT. Bank Panin Dubai Syariah Tbk, PT. Bank BTPN Syariah Tbk and PT. Bank Syariah Indonesia. Sampling is done by saturated sampling, saturated sample is a census, where all members of the population are used as samples.[11] With sampling techniques when all members of the population are used as samples. This is often done if the population is relatively small or research that wants to make generalizations with very small errors.

As for data collection techniques in the preparation of this research, using documentation techniques and library research techniques. The documentation technique includes secondary data where this research comes from financial reports which include collecting data information by collecting, recording, and calculating data in the form of financial reports published through the official website of the Indonesia Stock Exchange (IDX) by studying documents related to research problems, namely balance sheets, income statements and cash flows from 2021-2023. Library research is obtained from

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[9] Yusuf Zainal Abidin, *Metode Penelitian Komunikasi Penelitian Kuantitatif; Teori Dan Aplikasi* (Bandung: CV Pustaka Setia, 2015).

[10] Nurul Ilmiyah et al., *Mudahnya Memahami Metode Penelitian* (Jawa Timur: CV. Agrapana Media, 2021).

[11] Sugiyono, *Metode Penelitian Kuantitaif, Kualitatif, Dan R & D* (Bandung: Alphabeta, 2019).

data that is relevant and related to the problem being studied through several sources such as journals, the internet, numbers, books, archives, and images in the form of reports accompanied by information that can support this research. By using data processing techniques using the zmijewski x-score method with the help of microsoft excel 2010.

RESULTS

1. **Testing Return On Assets (ROA), Debt Ratio, and Current Ratio**
a. **Return On Assets (ROA)**

Return On Assets (ROA) is a financial ratio that shows how much the contribution of assets in creating net income. In other words, this ratio is used to measure how much net profit will be generated from each rupiah of funds embedded in total assets. This ratio is calculated by dividing net income against total assets. The higher the return on assets means the higher the amount of net profit generated from each rupiah of funds embedded in total assets. Conversely, the lower the return on assets means the lower the amount of net profit generated from each rupiah of funds embedded in total assets.[12] Based on Bank Indonesia circular letter No. 6/23/DP/NP of 2024, the standard for the ROA ratio value is obtained, namely:

ROA value criteria

Rating	Assessment Criteria	Predicate
1	ROA >1.5%	Very healthy
2	1.25 % < ROA$\leq$ 1.5 %	Healthy
3	0.5% < ROA$\leq$ 1.25%	Healthy enough
4	0% < ROA$\leq$ 0.5%	Less healthy
5	ROA$\leq$ 0.5%	Unhealthy

Source: SE Bank Indonesia No. 6/23/DP/NP in 2024

The following are the results of the calculation of *Return On Assets* (ROA) in 4 Islamic banking companies using the formula:

$$ROA = \frac{Laba\ Bersih}{Total\ Aset}$$

Data on *Return On Asset* (ROA) of Islamic banks listed on the Indonesia Stock Exchange for the 2021-2023 period (presented in rupiah)

Nama Instansi	Tahun	Laba Bersih	Total Aset	*Return On Aset (ROA)*
PT. Bank Aladin Syariah Tbk.	2021	-121,275	2,173,162	-0.06
	2022	-264,913	4,733,401	-0.06
	2023	-226,738	7,092,120	-0.03
PT. Bank Panin Dubai Syariah Tbk.	2021	-818,112	14,426,005	-0.06
	2022	250,532	14,791,738	0.02
	2023	244,690	17,343,247	0.01
PT. Bank BTPN Syariah Tbk.	2021	1,465,005	18,543,856	0.08
	2022	1,779,580	21,161,976	0.08
	2023	1,080,558	21,435,366	0.05
PT. Bank Syariah Tbk.	2021	3,028,205	265,289,081	0.01
	2022	4,260,182	305,727,438	0.01
	2023	5,703,743	353,624,124	0.02

Source: Company financial statements that have been processed

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[12] Alexander Thian, *Analisis Laporan Keuangan* (Yogyakarta: ANDI, 2022).

Based on the table above, Bank Aladin Syariah Tbk has the same Return On Assets (ROA) value in 2021 and 2022, which is -0.06, this means that the company is experiencing losses even though its total assets continue to increase. In 2023 the Return On Assets value of Bank Aladin Syariah Tbk showed a slight increase to -0.03, this means that the bank is signaling improvement, but has not yet reached profitability. So that Bank Aladin syariah Tbk has experienced losses in three consecutive years or is in an unhealthy state.

Bank Panin Dubai syariah Tbk has a Return On Assets (ROA) value in 2021 of -0.06, this means that the bank is experiencing losses or is in an unhealthy state in 2021. However, in 2022 the Return On Assets value of Bank Panin Dubai Syariah Tbk experienced a significant increase to 0.02, this means that the bank's profitability increased from the previous year which indicates that the bank is starting to make a profit. While in 2023 it decreased back to a value of 0.01, this indicates that profitability is good but decreased slightly from the previous year, this could be due to faster asset growth than profit growth.

Bank BTPN Syariah Tbk has a stable Return on Assets (ROA) value of 0.08 in 2021 and 2022, this means that the bank's profitability is in good condition. However, in 2023 it decreased to a value of 0.05, this indicates that the bank experienced a decrease in profitability in 2023, which could indicate a greater increase in assets than net income.

Meanwhile, Bank Syariah Indonesia Tbk has a low but stable Return on Assets (ROA) value of 0.01 in 2021 and 2022. In 2023 the bank experienced an increase in the Return on Assets (ROA) value to a value of 0.02, this indicates that the profit growth is quite good even though it is relatively small compared to other bank.

b. Debt Ratio

Debt ratio is a debt ratio used to measure how much the company's assets are financed by debt or how much the company's debt affects asset management. This is done by comparing total debt with total assets.[13] A good debt ratio value is below 0.5 (or less than 50% if converted to percent) this means that more than half of the company's assets are financed by equity, which indicates a healthier financial condition and lower financial risk. However, if the debt ratio is greater than 0.5 (or more than 50% if converted to percent) it means that the company relies on debt rather than equity, which increases financial risk.[14] The following are the results of the calculation of Debt Ratio in 4 Islamic banking companies listed on the Indonesia Stock Exchange (IDX) using the following formula:

$$Debt\ ratio = \frac{Total\ Utang}{Total\ Aset}$$

Data on the *debt ratio of* Islamic banks listed on the Indonesia Stock Exchange (IDX) for the 2021-2023 period (presented in rupiah).

Agency Name	Year	Total Debt	Total Assets	*Debt Ratio*
PT Bank Aladin Syariah Tbk.	2021	88,651	2,173,162	0.04
	2022	795,476	4,733,401	0.17
	2023	751,880	7,092,120	0.11
PT Bank Panin Dubai Syariah Tbk.	2021	727,197	14,426,005	0.05
	2022	2,015,192	14,791,738	0.14
	2023	4,006,195	17,343,247	0.23
PT Bank BTPN Syariah Tbk.	2021	2,543,053	18,543,856	0.14
	2022	2,910,720	21,161,976	0.14

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[13] Kasmir, *Pengantar Manajemen Keuangan* (Jakarta: Kencana Prenada Media Group, 2010).

[14] Kasmir, *Analisis Laporan Keuangan* (Jakarta: Rajawali Pers, 2016).

	2023	2,737,413	21,435,366	0.13
PT Bank Syariah Indonesia Tbk.	2021	61,886,476	265,289,081	0.23
	2022	73,655,791	305,727,438	0.24
	2023	87,222,911	353,624,124	0.25

Source: company financial statements that have been processed

Based on the table above, Bank Aladin Syariah Tbk has a debt ratio value in 2021 of 0.04, this shows that total debt is still very low compared to total assets. In 2022 the debt ratio value of Bank Aladin Syariah experienced a significant increase to a figure of 0.17, this means that the proportion of debt has increased quite high against assets. However, in 2023 the value of the debt ratio of Bank Aladin Syariah Tbk decreased to 0.11, this means that the proportion of debt to assets decreased slightly in 2023. This shows that some debts are starting to be repaid or assets are increasing faster than debts.

Bank Panin Dubai Syariah Tbk has a debt ratio value that continues to increase from 2021-2023. In 2021 it amounted to 0.05, this means that the bank relies more on its own capital than on debt. In 2022 the debt ratio value of Bank Panin Dubai Syariah Tbk was 0.14, this means that the bank began to utilize more debt for expansion. In 2023 amounting to 0.23, this shows that the debt ratio value of Bank Panin Dubai Syariah Tbk jumped high, signaling greater dependence on debt.

Meanwhile, Bank BTPN Syariah Tbk has a stable debt ratio value in 2021 and 2022 at 0.14, this means that most of the company's assets are financed by corporate debt. However, in 2023 it experienced a slight decrease to a value of 0.13, this indicates that the company's assets increased faster than debt growth.

Meanwhile, Bank Syariah Indonesia Tbk has a debt ratio value that continues to experience a fairly stable increase in 2021-2023. In 2021 the debt ratio value is 0.23, this means that the debt ratio is quite large compared to other banks. In 2022 the bank experienced an increase in the debt ratio value to a value of 0.24, this indicates that debt is increasing faster than assets. In 2023 the debt ratio value increased again at 0.25, this increase indicates an increase in the use of debt in the bank's financial structure, although the change is relatively small.

c. Current Ratio

Current ratio or ratio is a ratio to measure the company's ability to pay short-term obligations or debts that are due immediately when billed as a whole. In other words, how much current assets are available to cover short-term liabilities that are due soon. The current ratio can also be said to be a form of measuring the level of security (margin of safety) of a company.[15] The greater the ratio of current assets to current debt, the higher the company's ability to cover its short-term liabilities. This ratio can be made in the form of a number of times or in percentage form. If the current ratio is 1:1 or 100% this means that current assets can cover all current debt. A safer current ratio is if it is above 1 or above 100%, meaning that current assets must be far above the amount of current debt.[16] According to Cashmere, a good current ratio is 2 or more than 2, if the current ratio> 2, it means that the company has enough current assets to pay short-term liabilities at least twice, this indicates a healthy financial condition. If the current ratio is < 2, the company may be at risk of experiencing liquidity difficulties in meeting its short-term obligations.[17]

The following are the results of the calculation of the *Current ratio* in 4 Islamic banking companies listed on the Indonesia Stock Exchange (IDX) using the following formula:

$$Current\ Ratio = \frac{Aset\ Lancar}{Kewajiban\ Lancar}$$

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[15] Kasmir, *Analisis Laporan Keuangan* (Jakarta: Rajawali Pers, 2016).

[16] Sofyan Syafri Harahap, *Analisis Kritis Atas Laporan Keuangan* (Jakarta: PT. Raja Grafindo Persada, 1999).

[17] Kasmir, *Analisis Laporan Keuangan* (Jakarta: Rajawali Pers, 2016).

Data on the current ratio of Islamic banks listed on the Indonesia Stock Exchange (IDX) for the 2021-2023 period (presented in rupiah)

Nama Instansi	Tahun	Aset Lacar	Utang Lancar	*Current Ratio*
PT. Bank Aladin Syariah Tbk.	2021	2,056,523	88,651	23.20
	2022	4,378,533	795,476	5.50
	2023	6,650,538	751,880	8.85
PT. Bank Panin Dubai Syariah Tbk	2021	13,648,113	727,197	18.77
	2022	13,871,949	2,015,192	6.88
	2023	15,857,775	4,006,195	3.96
PT. Bank BTPN Syariah Tbk.	2021	17,859,033	2,543,053	7.02
	2022	20,334,292	2,910,720	6.99
	2023	20,539,318	2,737,413	7.50
PT. Bank Syariah Indonesia Tbk.	2021	257,177,804	61,886,476	4.16
	2022	294,545,559	73,655,791	4.00
	2023	340,033,758	87,222,911	3.90

Source: company financial statements that have been processed

Based on the table above, Bank Aladin Syariah Tbk has a current ratio in 2021 of 23.2, this means that the company's current assets are greater than current liabilities, which indicates excess cash or less productive current assets. This can happen because the company is too conservative in using its assets or there are many receivables and inventories that do not have time to rotate. In 2022 the current ratio value at Bank aladin Syariah Tbk showed a drastic decrease to 5.50, this means that the company began to use more current assets for operations or pay its obligations, this could occur due to an increase in short-term debt or a decrease in cash. Then in 2023 the current ratio value increased again to a value of 8.85, this indicates an improvement in liquidity. This can be caused by an increase in current assets such as the addition of cash or receivables or a reduction in short-term debt.

Bank Panin dubai syariah Tbk has a current ratio in 2021 of 18.77, this means that the company's current assets are greater than current liabilities, which indicates excess cash or less productive current assets. This can happen because the company is too conservative in using its assets or there are many receivables and inventories that do not have time to rotate. In 2022 the current ratio value at Bank Panin dubai syariah Tbk showed a drastic decrease to 6.88, this means that the company began to use more current assets for operations or pay its obligations, this could occur due to an increase in short-term debt or a decrease in cash. Then in 2023 the current ratio value continues to decline to a value of 3.96, this indicates that the bank is increasingly dependent on short-term liabilities to fund its operations.

Meanwhile, Bank BTPN Syariah Tbk has a current ratio in 2021 of 7.02, this means that the bank's current ratio value is stable but high enough to have consistent liquidity management. In 2022 the current ratio value of Bank BTPN Syariah Tbk showed a small insignificant decrease to 6.99, this means that the bank still maintains a balance of current assets and short-term liabilities. Then in 2023 the current ratio value increased again to a value of 7.50, this indicates an improvement in liquidity. This can be caused by an increase in current assets such as the addition of cash or receivables or the reduction of short-term debt.

Meanwhile, Bank Syariah Indonesia Tbk has a current ratio in 2021 of 4.16, this means that the bank has current assets 4.16 times greater than its current debt. This value shows that the bank has fairly good liquidity, although it is not as high as some other banks such as Bank Aladin Syariah Tbk or Bank Panin dubai syariah Tbk, that way the bank is still able to meet its short-term obligations. In 2022 the current ratio value at Bank Syariah Indonesia Tbk showed a decrease to 4.00, this decrease could be due to an increase in current debt that was greater than the growth in current assets, the use of expansion funds or financing which caused current assets to not increase

significantly, although it decreased, the ratio of 4.00 was still quite safe and showed that the bank remained liquid. Then in 2023 the current ratio value again fell slightly to a value of 3.90, this indicates that the bank began to rely more on current debt for its operations or investments, although it fell, this ratio was still within safe limits, but its downward trend showed that the bank's liquidity began to decrease slightly.

Analysis of potential bankruptcy with the Zmijewski model method (X-Score) In predicting company bankruptcy we need to include financial ratios into the Zmijewski model that can determine the magnitude of the possibility of bankruptcy. Financial ratios provide an indication of the financial strength of a company.[18] Based on the calculation of the ratio above, multiplication is then carried out with a formula in accordance with the provisions which will produce an X-Score value for each Islamic Bank company on the Indonesia Stock Exchange (IDX) in 2021-2023 using the X-Score formula, namely = X = -4.3 - 4.5 (X1) + 5.7 (X2) - 0.004 (X3) Cut off that applies to the zmijewski model is 0.[19] That is, if the company has a score greater than equal to 0, then the company is predicted to experience financial distress in the future. However, if the company score is less than 0, the company is predicted not to experience financial distress. Calculation of the zmijewski model in Islamic Bank companies located on the Indonesia Stock Exchange (BEI) for three years using the formula from the zmijewski x-score model, which is as follows:

$$X = -4.3 - 4.5 (X_1) + 5.7 (X_2) - 0.004 (X_3)$$

$X_1 =$ (ROA)
$X_2 =$ Debt Ratio
$X_3 =$ Current Ratio

Data on the *current ratio of* Islamic banks listed on the Indonesia Stock Exchange (IDX) for the 2021-2023 period (presented in rupiah)

Nama Instansi	Tahun	(X1)	(X2)	(X3)	X-Score	Hasil Analisis
PT. Bank Aladin Syariah Tbk	2021	-0.06	0.04	23.20	-3.91	*Non financial distress*
	2022	-0.06	0.17	5.50	-3.11	*Non financial distress*
	2023	-0.03	0.11	8.85	-3.59	*Non financial distress*
PT. Bank panin Dubai Syariah Tbk	2021	-0.06	0.05	18.77	-3.83	*Non financial distress*
	2022	0.02	0.14	6.88	-3.63	*Non financial distress*
	2023	0.01	0.23	3.96	-3.06	*Non financial distress*
PT. Bank BTPN Syariah Tbk	2021	0.08	0.14	7.02	-3.90	*Non financial distress*
	2022	0.08	0.14	6.99	-3.92	*Non financial distress*
	2023	0.05	0.13	7.50	-3.83	*Non financial distress*
PT. Bank Syariah Indonesia Tbk	2021	0.01	0.23	4.16	-3.04	*Non financial distress*
	2022	0.01	0.24	4.00	-3.01	*Non financial distress*
	2023	0.02	0.25	3.90	-2.98	*Non financial distress*

Source: Company financial statements that have been processed using excel 2010

Based on the table above, Bank Aladin Syariah Tbk has an *x-score* value in 2021 of - 3.91, even though Bank Aladin Syariah Tbk suffered losses in 2021, but because its total assets and liquidity ratio are still quite good so that it is in a *non-financial distress* condition. In 2022 the *x-score* value

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[18] Mark E. Zmijewski, "Methodological Issues Related to the Estimation of Financial Distress Prediction Models," *Journal of Accounting Research, Vol. 22, Studies on Current Econometric Issues in Accounting Research (1984)*.

[19] Mediya Lukman, *Manajemen Keuangan Korporat* (Yogyakarta: CV. Bintang Semesta Media, 2022).

was -3.11, although it was still in a loss in 2022, the *x-score* value was still in a state of *non-financial distress*. In 2023 *the x- score* value is -3.59, although still in a loss condition, the *x-score* value is also in a state of *non-financial distress*

Bank Panin Dubai Syariah Tbk has an *x-score* value in 2021 of -3.83, despite experiencing losses in 2021, the total asset value and liquidity ratio are still quite good so that it is in a *non-financial distress* condition. In 2022 the *x-score* value was - 3.63, where Bank panin Dubai syariah Tbk recorded a profit in 2022 from the previous year which experienced a loss which made the *x-score* better. In 2023 the *x-score* value was -3.06, the bank experienced an improvement in profit and total assets, which made the *x-score* value better.

Meanwhile, Bank BTPN Syariah Tbk has an *x-score* value in 2021 of -3.90, this could be because Bank BTPN Syariah Tbk has more stable profits. In 2022 the *x- score* value was -3.92, indicating strong performance and in *non-financial distress.* In 2023 *the x-score* value is -3.83, this shows that Bank BTPN Syariah Tbk remains in a stable condition even though the *debt ratio* value increases.

Meanwhile, Bank Syariah Indonesia Tbk has an *x-score* in 2021 of -3.04, indicating that Bank Syariah Indonesia has more stable profits. In 2022 the *x-score* value was -3.01, indicating good performance and in a state of *non-financial distress*. In 2023 *the x-score* value of -2.98 shows that Bank Syariah Indonesia Tbk remains in a stable condition even though the *debt ratio* value has increased slightly.

DISCUSSION

The Influence of Efficiency Levels on Financial Reporting in Companies Listed on the Jakarta Islamic Index (JII)

Efficiency means doing something quickly and correctly.[20] Efficiency is dynamic and requires continuous efforts to maintain and improve it. What is meant by efficiency level X1.

The results of research conducted by researchers at companies listed on the Jakarta Islamic Index (JII) regarding whether the level of efficiency affects financial reporting listed on the Jakarta Islamic Index (JII) for the 2021-2023 period. Results test Partial (test t) shows that there is a negative and insignificant influence between the level of efficiency on financial reporting registered in the Jakarta Islamic Index (JII) for the 2021-2023 period.

The results of this research are not in line with research conducted by Franycia Maria Pangkey, M Furkan, and Edy Herman in 2019, Roida Pakpahan in 2021. This research states that AI has a positive influence on human life and consumer buying interest as measured through a digital expert system. Meanwhile, in this research, X1 (level of efficiency) has no effect on financial reporting company which registered in Jakarta Islamic Index (JII).

The Influence of Accuracy Levels on Financial Reporting in Companies Listed on the Jakarta Islamic Index (JII)

Accuracy is the extent to which the consequences of estimates, calculations, or details correspond to precise values or standards.[21]What is meant by the level of accuracy is X2.

The results of research conducted by researchers at companies registered with the Jakarta Islamic Index (JII) regarding whether the level of accuracy affects financial reporting registered with the Jakarta Islamic Index (JII) for the 2021-2023 period. Results test Partial (test t) shows that the X2 value has a significant effect on financial reporting. The value of the beta coefficient X2 shows that there is a positive influence on the value of financial reporting.

The results of this research are in line with research conducted by Putri Ayunda Dipta Arviollisa, Arianis Chan, and Healthy Nirmalasari in 2021. This research states that AI has a positive effect on customer experience and accuracy in business operations. Meanwhile, in this research, X2 (level of

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[20] Amirullah, Pengantar Manajemen, Cetakan Kedua, Graha Ilmu, Yogyakarta, 2011.

[21]Tedi, 'Perbedaaan Akurasi Dan Presisi', 14 March, 2023 <https://perbedaan.budisma.net/perbedaan-akurasi-dan-presisi.html>.

accuracy) has an effect on financial reporting company which registered in Jakarta Islamic Index (JII).

The Influence of the Level of Data Analysis on Financial Reporting in Companies Listed on the Jakarta Islamic Index (JII)

Financial statement data analysis is an effort to analyze the entity's financial condition, the entity's past work results and future estimates to determine the entity's performance to date and estimate it in the future.[22] What is meant by the level of data analysis is X3.

The results of research conducted by researchers at companies registered with the Jakarta Islamic Index (JII) regarding whether the level of data analysis influences financial reporting registered with the Jakarta Islamic Index (JII) for the 2021-2023 period. Results test Partial (test t) shows that the X3 value has a significant effect on financial reporting. The value of the beta coefficient X3 shows that there is a positive influence on the value of financial reporting.

The results of this research are in line with research conducted by Muhammad Abyan Ramadhana & Ananda Sabil Hussein in 2022 which stated that AI has a good influence and can make an impression on companies. However, this research is in contrast to research conducted by I Putu Jordy Pratama Widiasa & I Putu Julianto in 2021. This research states in the second hypothesis that the implementation of an AI-based accounting system has a negative effect due to things that tend to be fraudulent financial reporting. Meanwhile, this research states that X3 (level of data analysis) influences financial reporting in companies listed on the Jakarta Islamic Index (JII).

People Muslim very recommended For prevent irregularities and practice truth doing business, Which in explain to Surah An-Nisa verse 135. By applying sharia accounting principles, it can be seen from the meaning and interpretation of Surah An-Nisa verse 135. That accounting in sharia rules must fulfill 3 principles, namely accountability, the principle of justice and the principle of truth.

CONCLUSION

After analyzing the financial statements owned by the company, the authors can draw conclusions on the analysis carried out on Islamic banking companies located on the Indonesia Stock Exchange (IDX). The conclusions that the author can draw are:

1.   Calculations carried out using the *zmijewski x-score* method on Islamic banking companies listed on the Indonesia Stock Exchange (IDX) can be concluded that all Islamic banking companies listed on the Indonesia Stock Exchange (IDX) are not experiencing *financial distress* in 2021-2023 based on calculations with the *zmijewski x-score* method*.

2.   From the calculation of Islamic banking companies on the Indonesia Stock Exchange with the *Zmijewski* method, it can be concluded that each company has its own assessment of *its financial* condition so that the accuracy of the data with research conducted by previous researchers must be based on research and sources from internal company parties.

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[22] V Wiratna Sujarweni, 'Analisis Laporan Keuangan (Teori, Aplikasi Dan Hasil Penelitian). Yogyakarta' (PUSTAKA BARU PRESS. Susilo Wulandari, 2019).

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