The Role of Modern Models in Predicting Financial Failure of Economic Institutions: An Empirical Study on Saidal group for the Period (2017-2020)

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Abstract:

This research paper aims to determine the possibility of predicting the financial failure of economic institutions by applying quantitative analysis models to predict financial failure on Saidal group, based on the indicators and financial ratios extracted from financial statements and reports for the study years from 2017 to 2020. This is done using both the Altman and Kida models. One of the most important results obtained is that Saidal group is at risk of financial failure, as indicated by the results of the models, which have shown weaknesses and flaws in the company. Therefore, it is necessary to take the necessary measures and work to improve its financial situation before falling into a state of bankruptcy.

Key words: Financial Failure, Models for Predicting Financial Failure, Altman Model, Kida Model.

JEL Classification Codes : D22, G33, G17.

Introduction :

The subject of predicting institutional failure is considered an important topic that has occupied many international organizations and institutions, due to its negative effects on the institution, investors, and the economy as a whole. Economic institutions face problems and difficulties that affect their economic activities, which may lead to financial failure resulting in a decline in the institution's revenue, production operations, and market share. This makes it difficult to measure the institution's economic performance and weakens its management in monitoring the prediction of financial failure and economic performance to determine the success or bankruptcy of the institution by its inability to meet its financial obligations when due.

In the early 1960s, many studies and research sought to find financial models in this context, and after Altman's famous research on predicting financial failure in American institutions in 1968, he had many studies and contributions in this field. Studies continued after him, where several models were designed, including Sherood and Kida, and Shirata. The aim of these models is to provide early warning of institutions falling into financial problems that threaten their continuity in the future. This study aims to test the possibility of using global quantitative models to predict the financial failure of a pharmaceutical institution.

Study problem:

The problem of this study can be formulated in the following main question:

Can we rely on both Altman and Kida models to predict financial failure in the Algerian pharmaceutical complex for the period (2017-2020)?

Study Hypothesis:

This study proceeds from the following main hypotheses:

Applying both Altman and Kida models to the studied complex allows for accurate and advanced prediction of financial failure.

Study importance:

The importance of this study lies in the fact that predicting financial failure in the studied company before it occurs serves as an early warning system that allows for taking necessary measures to avoid reaching the stage of bankruptcy and liquidation.

Study objectives:

This study aims to clarify the concepts related to financial failure, as well as to identify the most important quantitative models used to predict financial failure in institutions, and to attempt to apply models that help predict financial failure by identifying the predictive ability of both the Altman and Kida models in the Saidal group

.**Study Approach:**

To reach a clear answer to the posed problem and achieve the desired goals, the descriptive method was relied upon as the appropriate method for the study, which reviews all theoretical concepts and ideas, as well as the analytical method, which involves collecting, arranging, classifying, analyzing, interpreting, and attempting to establish connections between the data through a case study of Saidal group .

1. Financial Failure:

1.1 Definition of Financial Failure:

The term financial failure refers to the financial situation in which a company is headed towards bankruptcy and liquidation. It is used as a negative indicator to describe the financial condition of a company. There are many similar terms to financial failure, but they differ implicitly. Many researchers agree that financial failure is the process that leads to the liquidation and end of a company or organization due to its inability to meet its short-term and long-term obligations to its creditors. According to Altman, financial failure is defined as a significant and continuous decrease in the return on investment compared to the prevailing returns from similar investments (Altman, 2006, p. 04). Financial failure is also known as the process in which the company is heading towards a path that ends up with a financial hardship (Ammari, 2015, p. 40). Financial failure is also defined as the process in which a company engages in activities or operations that result in relinquishing assets and properties to its creditors or results in bankruptcy and loss for creditors after failed operations (Hala, 2004, p. 21). As for financial distress, it is a stage that precedes financial failure, where the organization is unable to efficiently fulfill its short-term obligations despite having fixed assets that are difficult to convert into liquidity (Ezzat Hani, 2018, p. 18). This is due to accumulations of unthoughtful and inaccurate practices that paved the way for financial crisis within the organization. Meanwhile, the term financial constraint refers to the company's inability to meet its due debts on time, which will result in losing the freedom of choice in the near future, and ultimately lead to liquidation of assets causing significant losses. This constraint may be technical, meaning that the current assets are greater than the current liabilities, causing a liquidity problem due to the company's inability to sell these assets. It may also be legal, where the value of current assets is less than current liabilities, forcing the company to relinquish its fixed assets, ultimately leading to liquidation in the future (Touiti, 2013, p. 10).

From the above, we can conclude that financial failure is the final result that follows a state of insolvency and financial hardship, as a result of many practices and reasons that have led the institution to be unable to fulfill its debts to creditors. These reasons

may be related to management or the economic situation in general, or a technical and productive situation that did not align with specific goals.

1.2 Types of financial failure:

We distinguish between three types of financial failure (Ammari, 2015, p. 45):

1.2.1 Economic failure:

This type occurs when the company is unable to generate sufficient income to cover its costs. The return on capital is less than the average cost of capital. The company may be economically unsuccessful, but this does not necessarily mean that it is completely financially failed, as it still has the ability to pay off debts and obligations, and thus is far from bankruptcy.

1.2.2 Managerial failure:

This refers to shortcomings in the managerial side of the company and not performing management functions optimally in terms of planning or control. The management system is characterized by a lack of efficiency and effectiveness, making it difficult to achieve the desired goals and the company's ability to cope with its external environment, which leads to weakness in its administrative, technical, and economic structure, and thus affects its financial value negatively.

1.2.3 Legal failure:

Generally, it refers to financial failure in its previous concept, where the company is in a critical situation that does not allow it to fulfil all types of debts to creditors, which leads the company to convert its fixed assets into liquidity by relinquishing them. This process requires a long time under the pressure resulting from the demands of creditors to pay their dues.

1.3 Stages of Financial Failure:

There are several stages that precede the stage of financial failure, which generally indicate the fluctuating and imbalanced financial situation of the institution. These stages are (Hammad, 2010, p. 67):

1.3.1 Start-up stage:

This is the period in which the signs of financial problems appear, such as achieving lower returns on assets and experiencing economic losses.

- ❖ **Financial weakness stage:** This stage is characterized by a problem of liquidity deficit, which reflects a financial distress problem, where the institution is unable to meet its immediate and short-term obligations despite the higher value of assets than liabilities, due to the inability to convert assets into liquidity in a timely manner.

- ❖ **Financial deterioration stage:** During this stage, the institution faces a financial hardship problem, where it cannot pay its due debts, and the institution has to

take urgent and rapid measures to address the imbalance by modifying the financial or accounting policy of the institution, or issuing shares and bonds, for example, despite the length of time that can be taken to address this issue.

❖ **Total failure stage:** The institution reaches this stage when the value of liabilities officially exceeds the value of assets, where it becomes impossible for the institution to pay the rights of creditors, and all its attempts to secure other sources of funding end.

❖ **Bankruptcy confirmation stage:** In this stage, the institution is liquidated and declared bankrupt after taking the legal procedures to ensure the rights of creditors, and thus the institution has reached the stage of complete financial failure.

1.4 Causes of financial failure:

There are many factors that contribute to the financial failure of institutions, including the following (Hakimi & Mouloud, 2022, p. 174):

❖ **Administrative causes:** These include lack of efficiency, internal conflicts between organizational levels, domination of the private interests of shareholders and owners, as well as the absence of an effective control system and flexibility in management.

❖ **Financial causes:** Where the institution is unable to pay off accumulated debts due to a loss of cash liquidity, accumulated losses, and an increase in the cost of financing and borrowing, which leads to a disruption in the financing structure.

❖ **Marketing causes:** Resulting from an environment characterized by intense competition for market dominance, the presence of a weak marketing information system that does not respond to changes in the market, in addition to poor coordination between the elements of the marketing mix.

❖ **Technical and productive causes:** These include the failure of the institution to keep up with rapid technological developments, which leads to poor quality of its products or failure to develop them, and the absence of precision in the technical feasibility study, as well as the lack of skills among workers to improve product quality.

2. Financial Failure Prediction Models:

Financial failure prediction is the process of estimating future outcomes based on scientific and statistical methods, using financial data from a previous period to obtain information that can help address events and avoid future problems. Given the serious effects of business failure and bankruptcy on the economy in general, it is essential to develop mechanisms that can predict corporate failure before it occurs in order to take corrective measures and avoid bankruptcy problems in general. Investors can also

compare available alternatives and avoid investments that are relatively high-risk for bankruptcy, while lenders and creditors are interested in them for various reasons, including making decisions on whether to grant loans, determining interest rates and lending terms based on the expected risk (Bouazza & Abeerat, 2022, p. 274).

Financial analysis has been adopted as a means of predicting financial failure, which is the situation the company will be in in the future, through the use of quantitative models of financial ratios and indicators to identify specific data or results and compare them with benchmark ratios. There are many models used to predict financial failure, among the most prominent of which are:

2.1 Beaver Model 1966:

The model relied on financial ratios and included a comparison of the financial ratios of 79 failed companies to 79 other non-failed companies in the period 1954-1964 according to specific criteria, such as exposure to bankruptcy events. Beaver tested 30 financial ratios for analysis and used the single variable method to analyze each ratio for five consecutive years. He also relied on statistical methods to select the ratios and found that the closer the ratio was calculated to the year of failure, the more accurate the prediction was. Beaver used only one financial ratio each time and found that the following ratios were more useful in predicting institutional failure (Abdul Shakur Abdul Rahman Musa, 2017, p. 224):

- **Ratio (1):** Cash flow / Total debt.
- **Ratio (2):** Net income / Total assets.
- **Ratio (3):** Total borrowed funds / Total assets.
- **Ratio (4):** Net working capital / Total assets.
- **Ratio (5):** Current assets / Current liabilities.

This model was characterized by a strong predictive power that enabled it to predict financial failure five years before it occurred. In 1968, the model was further developed by testing a set of ratios, and it was found that the best ratios for predicting failure, in order, were (Radwan & Hussein, 2015, p. 137):

- Cash flow to total debt ratio;
- Net income to total assets ratio;
- Total debt to total assets ratio.

It should be noted that this model does not rely on the results of these ratios individually, but rather they should be studied together.

2.2 Altman Model 1968:

This model is considered one of the most important works that followed Beaver's model, as it relied on the linear discriminant analysis method, trying thereby to overcome the deficiencies of the previous method, which relied on simple statistical methods in

analyzing financial ratios, by choosing one financial ratio that is believed to be the best in distinguishing between failed and non-failed institutions. Altman relied on the following financial ratios in his model (Abdul Shakur Abdul Rahman Musa, 2017, p. 753):

- **X1:** Net Working Capital / Total Assets;
- **X2:** Retained Earnings / Total Assets;
- **X3:** Earnings Before Interest and Taxes / Total Assets;
- **X4:** Market Value of Equity / Total Liabilities;
- **X5:** Sales / Total Assets.

He developed an equation that combines these ratios according to the following formula:

$$Z = 0.012X1 + 0.014X2 + 0.033X3 + 0.006X4 + 0.010X5 ... (1)$$

Companies can be classified based on the Z-score. If the Z-score is greater than 2.99 (2.99 ≤Z), the company falls into the category of non-failing companies, meaning that it is capable of continuing. If the company's Z-score is 1.81 ≥Z, it falls into the category of companies threatened with financial failure and bankruptcy. The companies that fall in the range of 1.81 ≥ Z ≥ 2.99 are called the gray zone, and these companies require detailed study before making a decisive decision about them. However, this model was criticized because it cannot be applied to companies that are not listed on the stock exchange, which forced Altman to modify his model in 1977 by replacing the market value of equity with book value and adjusting the discrimination coefficients according to the following formula (Jaafar & Gwaini, 2019, p. 223):

$$Z = 0.717X1 + 0.847X2 + 3.107X3 + 0.420X4 + 0.998X5 ... (2)$$

The value of Z has only changed for companies at risk of failure, which is now 1.23 ≥Z, as well as the gray zone, which ranges from 1.23-2.99, where the model cannot classify the institution.

2.3 Argenti 1976 Model:

This model combines financial analysis and risk analysis methods, with a strong focus on qualitative variables rather than quantitative ones. It gives great importance to managerial decisions and weaknesses, as well as weaknesses in the internal control system and accounting systems used. This model is known as the A-Score model or the Multiple Administrative Error model. According to this model, a failing enterprise goes through three basic stages starting with defects that lead to errors, which in turn lead to the appearance of failure symptoms, ultimately resulting in actual failure and bankruptcy. Argenti has given a set of indicators for each stage in the form of a table, where the defects stage has a total of 43 points, errors stage has a total of 45 coefficients, and the symptoms stage has a total of 12 points, reaching a total of 100 points. According to this model, the criteria for evaluating the condition of the enterprise are as follows:

- The probability of failure is low if the actual score of the enterprise is less than 18 points.
- The probability of failure is reasonable if the total points range between greater than 18 and less than 35.
- The probability of failure is high if the actual score is 35 or more (Al-Mashhadani, Najm Abdullah, & Demiaa, 2014, p. 513).

2.4 Kida Model 1981:

This model is based on five financial ratios that reflect the operational performance of the institution, represented as follows:

- **X1:** Net profit after tax / Total assets;
- **X2:** Shareholders' equity / Total liabilities;
- **X3:** Current assets / Current liabilities;
- **X4:** Sales / Total assets;
- **X5:** Cash / Total assets.

The value of the dependent variable Z is determined by the following equation:

$$Z = 1.042X1 + 0.42X2 - 0.461X3 - 0.463X4 + 0.271X5 \dots (3)$$

Unlike previous models, this model does not determine the value of the dependent variable Z, but classifies institutions according to this model. If the value is positive, the institution is in a safe state from financial failure. If the value is negative, it means that the institution is threatened with financial failure. This model has been tested on 16 successful and 16 failed institutions and has shown a high ability to predict bankruptcy incidents up to 90% before the occurrence of the bankruptcy incident (Khalid & Ahmad, 2011, p. 209).

2.5 Sherrod 1987 Model

Sherrod built this model as a tool for assessing credit risk when granting loans by banks in order to predict financial failure. He relied on six financial indicators represented by (Assous & Ait Mohamed, 2021, p. 148):

- **X1:** Net working capital / Total assets;
- **X2:** Cash / Total assets;
- **X3:** Shareholders' equity / Total assets;
- **X4:** Net income before taxes / Total assets;
- **X5:** Total assets / Total liabilities;
- **X6:** Shareholders' equity / Fixed assets.

He collected these ratios in the form of an equation that takes the following values:

$$Z = 17 X1 + 9 X2 + 3.5 X3 + 20 X4 + 1.2 X5 + 0.10 X6 \dots (4)$$

Based on the Z values, companies are classified into five categories according to their ability to continue, and these categories are (Assous & Ait Mohamed, 2021, p. 148):

- The first category includes companies that are not exposed to bankruptcy risks and their Z value is greater than or equal to 25;
- The second category includes companies that have a low probability of bankruptcy risks and their Z value ranges from 20 to 25;
- The third category includes companies that are difficult to predict bankruptcy risks and their Z value ranges from 5 to 20;
- The fourth category includes companies that are exposed to bankruptcy risks and their Z value ranges from -5 to 5;
- The last category includes companies that are significantly exposed to bankruptcy risks and their Z value is less than or equal to -5.

2.6 Shirata 2002 Model:

Shirata is one of the latest models used to predict financial failure. The researcher used 72 financial indicators on a sample of 10,457 bankrupt and 30,421 non-bankrupt Japanese companies. Through this, she arrived at a set of financial ratios that can be used to predict the financial failure of these companies. This model is called SAF 2002, and according to it, companies whose model value is greater than 0.26 are considered vulnerable to bankruptcy. The model includes the following equation (Radwan & Hussein, 2015, p. 132):

$$\text{SAF} = 0.707 + 0.010\ X1 + 0.268\ X2 + 0.0661\ X3 + 0.0237\ X4 \dots (5)$$

These ratios are represented in the following indicators:

- **X1:** Retained earnings to total assets
- **X2:** Net income before tax to total assets
- **X3:** Inventory turnover to inventory
- **X4:** Interest expense to sales

However, the researcher conducted further research to develop this model to be more accurate in predicting the financial failure of companies. She made some adjustments to the financial ratios that make up the equation, resulting in a more accurate model. The previous model explained 72% of bankruptcy cases, whereas the new model explains 86.14% by using the following equation:

$$Z = 0.7614 + 0.014X1 + 0.058X2 + 0.062X3 + 0.003X4 \dots (6)$$

The new ratios are represented in the following indicators:

- **X1:** Net income before tax to total assets
- **X2:** Interest expense to sales
- **X3:** Accounts payable to sales
- **X4**: Current working capital to previous working capital

According to this new model, companies with a Z value below 0.38 are at a higher risk of bankruptcy. It is worth noting that these models aim to reduce financial failure in

companies by proposing quantitative models that help companies and stakeholders interested in the company's financial situation to understand whether it is in a state of financial failure or not, so they can take necessary action for the continuity of the company (Shirata, 2002, p. 08).

3. Application of the Altman & KIDA model on the Saidal group:

3.1 Study population and sample:

The study population and sample are represented by the Saidal group , which is the first pharmaceutical laboratory in Algeria that produces generic drugs. The group was founded in 1982 to meet the need for establishing a local pharmaceutical industry capable of providing medicines to citizens. Currently, Saidal is organized as an industrial complex specializing in the development, production, and marketing of pharmaceutical products for human consumption. The Saidal group owns four subsidiary companies: Biotic in El Harrach, Somédial in Oued Smar, Pharmal in Dar El Beida, and Antibiotical in Medea, in addition to nine production units. Saidal is a company with a capital of 2.5 billion Algerian dinars, and its capital was listed on the stock exchange in 1999. 80% of Sidal's capital is owned by the state, and the remaining 20% is owned by investors from institutions and individuals (Saidal Group, n.d.).

3.2 Study Tools:

In order to predict financial distress using the KIDA and Altman models to prevent bankruptcy for the Algerian pharmaceutical complex, "Sidal", the study collected the financial statements of the company for the period (2017-2020), mainly represented in financial budgets and income statements. This was done to calculate the indicators that make up the selected financial distress prediction models.

3.3 Results and Discussion:

Several models have been developed to predict early financial failure of companies in order to assist in taking necessary measures to address or avoid such failure. In order to study the possibility of the pharmaceutical company "Sidal" falling into financial failure, this section will discuss the Altman and Kida models as follows:

3.3.1 Prediction of financial failure of Saidal using the Altman model:

Table (01) illustrates the various elements that can be relied upon to calculate the variables of the Altman model, which were obtained from the financial statements of Saidal for the period from 2017 to 2020, as follows:

Table (01): Values of various elements for Saidal during the period (2017-2020) to calculate the Z value

Unit: DZ (Algerian Dinar)

Ratio elements	2017	2018	2019	2020
Retained Earnings	106,079,500	141,217,069	486,095,152	552,128,424
Sales	9,610,633,720	9,627,669,617	8,680,696,449	9,124,250,542
Shareholders' equity	/	/	/	/
Earnings Before Interest and Taxes	3,147,849,151	2,690,373,119	1,695,048,438	577,106,876
Total assets	46,273,555,486	37,555,429,812	36,799,400,614	37,293,447,457
Total liabilities	15,604,030,261	14,893,843,495	14,351,034,573	14,292,268,186
Net Working Capital	7,464,191,159	8,461,003,429	8,123,430,232	9,280,386,689

Source: Prepared by the researcher based on the outputs of the financial statements of the Saidal group for the period (2017-2020)

Table (02) illustrates the different values of the Altman model variables as well as the Z score during the study period from 2017 to 2020, as follows:

Table (02): Altman model variables for Saidal group

Ratio	2017	2018	2019	2020
X1	0.1613	0.2253	0.2207	0.2488
X2	0.0023	0.0038	0.0132	0.0148
X3	0.068	0.0716	0.0461	0.0155
X4	/	/	/	/
X5	0.2077	0.2564	0.2359	0.2447
Z	0.0063	0.0077	0.0067	0.0062

Source: prepared by the researcher based on the data of Table (01)

The table shows different values of Altman's model variables, as well as the Z value, during the study period from 2017 to 2020 for the pharmaceutical institution.

It can be observed from the table that the Z value, which represents the model value, can be used to assess the success or financial failure of the institution in the future. The results show that during the study years, the Z value was less than 1.81, indicating that the institution is in a state of financial distress and may face bankruptcy in the future if corrective measures are not taken.

Looking at the components of the model, the following can be noted:

- For variable X1, which represents working capital over total assets and is an indicator of liquidity, the positive value indicates that the institution has surplus liquidity in the short term, and thus operates without financial difficulties during the exploitation cycle. The value was acceptable during the study years.
- For variable X2, which represents retained earnings over total assets, it can be observed that there was a continuous increase in the total assets of the institution

from year to year during the study period. The profits were also increasing steadily from year to year, indicating stability of the institution.

- For variable X3, representing net profit before interest and taxes over total assets, which is an indicator of profitability, it was high during the study years, where the average net profit before taxes represented 5.14% of the total assets. However, it recorded a noticeable decrease in the ratio in 2020 due to a decline in profits.

- For variable X4, representing shareholder equity over total liabilities, it can be observed that it was zero during the study years.

- For variable X5, representing total sales over total assets, it can be observed that it was generally acceptable during the study years, indicating that the institution has good sales and therefore does not suffer from financial difficulties during the exploitation cycle.

3.3.2 Predicting the financial failure of Saidal group using Kida model:

We will rely on some elements calculated in Table (01) as well as the elements calculated in Table (03) to calculate the variables that make up the Kida model. The values of those elements were obtained from the financial statements of Saidal group, which extend from 2017 to 2020, and are shown as follows:

Table (03): Values of different elements of Saidal group during the period (2017-2020) to calculate the value of Kida model

Unit: DZ (Algerian Dinar)

Ratio elements	2017	2018	2019	2020
Net profit after tax	1,433,341,329	1,292,124,260	806,029,108	253,900,684
Shareholders' equity	/	/	/	/
Sales	9,610,633,720	9,627,669,617	8,680,696,449	9,124,250,542
Cash	4,698,936,566	3,037,331,704	1,826,155,136	2,765,947,214
Total assets	46,273,555,486	37,555,429,812	36,799,400,614	37,293,447,457
Total liabilities	46,273,555,486	37,555,429,812	36,799,400,614	37,293,447,457
Current assets	13,997,805,400	14,438,322,189	13,721,589,451	15,133,338,434
Current liabilities	6,533,614,241	5,977,318,760	5,598,159,219	5,852,951,745

Source: Prepared by the researcher based on the outputs of the financial statements of the Saidal group for the period (2017-2020)

Table (04) illustrates the different values of the Kida model variables, as well as the Z-score value during the study period extending from 2017 to 2020, as follows:

Table (04): Kida model variables for Saidal Saidal group

Ratio	2017	2018	2019	2020
X1	0.031	0.034	0.022	0.0068
X2	/	/	/	/
X3	2.1424	2.4155	2.4511	2.5856
X4	0.2077	0.2564	0.2359	0.2446
X5	0.1015	0.0809	0.0496	0.0742
Z	1.0555-	1.2095-	1.2252-	1.2849-

Source: prepared by the researcher based on the data of Table (03)

The table shows different values of Altman's model variables, as well as the Z value,

From the table, it can be observed that the Z-score for the KIDA model used to predict financial distress shows negative values for the institution throughout the study period, indicating a very high likelihood of financial failure. Furthermore, statistical data analysis shows that the Z-score has been decreasing from year to year with negative values, reflecting the low economic value added, in addition to a very small profit margin earned from the invested capital, and an inability to generate profits from these invested funds. The net profit ratio to total assets is very low compared to the invested funds, reflecting the inefficiency of the institution in generating suitable financial returns for the available funds. This leads to a poor financial position for the institution, which does not allow it to expand and add value to the institution.

Conclusion:

This study attempted to predict the financial failure of the Algerian pharmaceutical company, Sidal, during the period of 2017-2020, based on financial data by applying the bankruptcy prediction models of both Altman and Kida, which resulted in the following conclusions:

- Financial failure is a negative phenomenon that the company may experience throughout its life.
- There are several stages that the company goes through before it reaches financial failure, and one of the hardest stages that the company may encounter is the stage of actual collapse and complete deterioration. At this point, it becomes difficult for the company to obtain additional financing to pay its financial obligations, which may lead to bankruptcy and liquidation in the future.
- The evaluation of the possibility of Sidal's financial failure using the Altman model yielded results of less than 1.81, indicating that the company is at risk of financial failure. Several reasons could cause this, such as the worker's capital indicator to total assets, which represents the amount of money invested in the company. It explains the suboptimal use of available funds, which is one of the reasons for financial failure and the lack of success of Sidal. Additionally, the ratio of retained

profits to total assets indicates an increase, which implies the exploitation of these profits in investments. The ratio of pre-tax profit to total assets also indicates the effectiveness of investment and operational policies. Moreover, the ratio of debt to total assets is high, indicating that Saidal is suffering from liquidity problems and unable to repay debts to others. The fluctuating and declining sales of the company also had an impact on the result, leading to a decrease in the Z value. This requires decision-makers in Saidal to take corrective actions to address deviations and move it from financial difficulty to a safe zone.

- Regarding the use of the Kida model in evaluating the possibility of financial failure of the Saidal group, it is observed that the company has achieved negative values throughout the study years. This indicates that the likelihood of financial failure is high through the statistical analysis of information showing negative values increasing year after year. This reflects the low economic value-added as well as the very low profit margin achieved from the return on invested capital and the cost of capital ratio compared to the funds invested. This indicates the inefficiency of the company in achieving appropriate financial returns for the available funds, which leads to the poor financial position of the company, which does not allow it to expand and add value. Therefore, the financial situation is very difficult and consequently, the probability of financial failure is very high. Corrective actions must be taken in the future to avoid the risk of bankruptcy.

In general, and referring to the evaluation results of the Saidal group using the Altman and Kida models, which had the ability to predict, the results were close, indicating the likelihood of the company's exposure to financial failure. Through these models, weaknesses in the company were identified, and solutions must be found to avoid bankruptcy.

Based on the previous results, some proposals can be made for the studied company, such as:

- The Saidal group should use predictive models with varying results to predict financial decline stages, allowing the company to face financial failure before it occurs.
- The Saidal group should seek better investment opportunities capable of generating higher profits to maximize the owners' wealth and achieve the maximum benefit from untapped funds.
- The sales policy in the company should be reviewed to determine the reasons for the decline in sales volume.

- The reasons for the decline in the ability to generate profits well should be reviewed to identify the causes of this decrease in the ability of assets to generate profits.

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