

Business Failure Risk Analysis in Companies listed on the IDX 2019-2020

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Abstract. In Indonesia, the COVID-19 virus has rendered about 80% of typical tasks impossible. Community restrictions have an impact on corporate activity, which in turn has an impact on the economy. Two out of every three enterprises questioned in Indonesia had temporarily or permanently halted operations, according to the International Labor Organization (ILO). The purpose of this study is to examine the risk of business failure in businesses listed on the Indonesia Stock Exchange, as well as the factors that influence that risk. The descriptive analysis, classical assumption testing, and inference analysis employing multiple regression methods were used in this study. The risk of business failure as proxied by the Z Score, current ratio (CR), and company size among firms listed on the Indonesia Stock Exchange in 2019-2020 is the data used in this study. There were 411 firms in total in this study's sample. Secondary data in the form of firm financial report data and the publication of "IDX Annual Statistics" for 2019-2020 was used in this study. The current ratio and firm size have a strong positive effect on the likelihood of business failure, either partially or simultaneously, according to the findings of this study, with a 27.6% influence level. Maintaining liquidity and firm assets is a critical strategy for business continuity in challenging circumstances like today, even if it has a minor impact.

Keywords. Business Failure; Current Ratio; Firm Size

Abstrak. Penyebaran virus covid-19 telah melumpuhkan hampir 80% aktivitas normal di Indonesia. Pembatasan aktivitas masyarakat berpengaruh pada aktivitas bisnis yang kemudian berimbas pada perekonomian. Organisasi Perburuhan Internasional (ILO) mencatat, dua dari tiga perusahaan yang disurvei di Indonesia telah menghentikan operasi usahanya baik secara sementara maupun permanen. Penelitian ini bertujuan untuk menganalisis risiko kegagalan bisnis pada perusahaan yang terdaftar di Bursa Efek Indonesia dan menganalisis faktor-faktor yang mempengaruhi risiko kegagalan bisnis. Metode yang digunakan dalam penelitian ini adalah analisis deskriptif, pengujian asumsi klasik dan inferensi analisis menggunakan regresi berganda. Data yang digunakan dalam penelitian ini adalah risiko kegagalan bisnis yang di proksikan dengan Z Score, rasio lancar (CR), dan ukuran perusahaan pada perusahaan yang terdaftar di Bursa Efek Indonesia Tahun 2019-2020. Jumlah sampel perusahaan yang digunakan dalam penelitian ini berjumlah 411 perusahaan. Data yang digunakan dalam penelitian ini adalah data sekunder berupa data laporan keuangan perusahaan dan publikasi "IDX Annual Statistics" tahun 2019-2020. Hasil penelitian ini menunjukkan bahwa *current ratio* dan ukuran perusahaan berpengaruh positif signifikan terhadap risiko kegagalan bisnis baik secara parsial maupun simultan dengan tingkat pengaruh sebesar 27,6%. Walaupun memiliki pengaruh yang cukup kecil, namun menjaga likuiditas dan aktiva perusahaan merupakan strategi yang sangat penting bagi keberlangsungan bisnis dimasa-masa sulit seperti saat ini.

Kata kunci. Kegagalan Bisnis; Rasio Lancar; Ukuran Perusahaan

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INTRODUCTION

Many people have had a poor year in 2020. This is owing to the COVID-19 virus's spread, which started in Wuhan, Hubei Province, China. In early March 2020, the

virus began to spread and reached Indonesia. In Indonesia, the spread of this virus has rendered about 80% of daily activities impossible. Community restrictions have an

impact on corporate activity, which in turn has an impact on the economy. According to a report released in August by the Central Statistics Agency (BPS), Indonesia's economic growth in the second quarter of 2020 was minus 5.32 percent. Previously, BPS stated that Indonesia's economy increased by only 2.97 percent in the first quarter of 2020, compared to 5.02 percent in the same period of 2019 (Meutia, 2020).

Furthermore, numerous businesses have ceased operations and cut their employees. Two out of every three enterprises questioned in Indonesia had temporarily or permanently halted operations, according to the International Labor Organization (ILO). The company's revenue has decreased. According to an ILO survey, more than a quarter of businesses reported losing more than half of their revenue (Sanusi, 2020).

According to the research paper, headlined "Companies are running out of survival, jobs are in jeopardy," 90 percent of businesses are suffering financial difficulties and require immediate cash flow assistance from the government in order to survive. Furthermore, 63 percent of the organizations polled had cut their workforce, and many more are preparing to do so in the near future. In partnership with its constituents and implementing partners, the ILO's Program on Sustainable Competitiveness and Corporate Responsibility (SCORE) Indonesia conducted this study, which covered 571 enterprises as of April 2020 (Primasawi, 2020).

A corporation will undoubtedly avoid a variety of situations that could lead to collapse. According to Putrid an Merkusiwati (Putri & Merkusiwati, 2014), bankruptcy is the greatest financial distress situation. Shareholders, employees, and the national economy will all suffer losses as a result of corporate bankruptcy (Al-khatib & Al-horani, 2015).

In the business sector, risk management is extremely crucial. Uncertainty is frequently related with risk. According to Rodoni and Ali (Rodoni & Ali, 2010), there are three factors that cause a company's commercial failure when seen from a financial standpoint, namely the factor of insufficient

capital or lack of capital, the quantity of debt and interest expenditures, and suffering losses. Logic dictates that the more the use of debt, the greater the weight of interest charges, reducing profitability (Sjahrial, 2012).

Aside from debt, the size of a firm has an impact on its chances of going out of business. Purnamandari and Badera (Purnamandari & Badera, 2015) found that the size of a company has a considerable impact on the probability of a business failing. The size of a corporation is determined by the quantity of equity value, sales value, or asset value (Ong et al., 2012). According to Huang ((Huang, 2005), companies with higher assets are less risky than those with modest assets. The higher a company's assets are, the more it may invest in both current and fixed assets.

The purpose of this study is to assess the risk of business failure in businesses listed on the Indonesia Stock Exchange for the year 2019-2020, as well as the factors that influence it.

Risk management

Risk management, according to Irham Fahmi (Fahmi, 2010), is a branch of research that examines how an organization uses measurements to map numerous current problems by combining various management approaches in a thorough and methodical manner.

Risk management is defined as a way of detecting, quantifying, establishing attitudes, finding solutions, and monitoring and reporting risks that occur in each action or process in a logical and methodical manner. Risk is defined as an unpleasant (bad, detrimental) effect of an activity or action, according to the Big Indonesian Dictionary (Pramana, 2011). In other words, risk is the chance of a condition or situation that could jeopardize an organization's or individual's ability to fulfill its goals and objectives.

Business Failure/Bankruptcy

According to Rafles (Tambunan, 2015), a corporation can be regarded to be

bankrupt if it faces modest difficulties (such as liquidity issues) as well as more serious obstacles, such as solvability issues (debt is greater than assets). There are early signals of the company that may generally be noticed sooner if the financial records are examined more attentively in a specific method. Failure, according to Brigham (Brigham et al., 2001), can be defined in various ways namely “economic failure refers to a company that loses money or whose income is insufficient to pay its own costs, implying that the rate of profit is lower than the cost of capital or that the the company's current cash flow is lower than its liabilities. When a firm's real cash flows fall far short of its forecasted cash flows. Then, the word "financial difficulty" refers to a company's financial situation where it is having difficulty raising finances, either in terms of cash or working capital. Multiple asset-liability management is critical to regulatory capabilities to avoid financial catastrophe. Financial failure can also be defined as insolvency that distinguishes between cash flow and stock basis insolvency.”

Current Ratio

The current ratio, according to Kasmir (Kasmir, 2016), is a ratio used to assess a company's ability to pay short-term obligations or debts that are due immediately when billed as a whole. According to Agnes Sawir (Sawir, 2015), the current ratio is the most often used measure to gauge the ability to meet short-term obligations since it demonstrates how well assets projected to be cash in the same period as the debt maturity meet the needs of short-term creditors. A low current ratio implies a high liquidity risk, whereas a high current ratio shows a large amount of current assets, which will hurt the company's profitability.

Fixed assets produce higher returns than current assets (Hanafi et al., 2016). The

higher this ratio, the more capable the corporation is of meeting its short-term obligations. This indicates that the corporation can pay down its short-term commitments at any time. A high current ratio, on the other hand, suggests poor liquidity management. The excess in current assets should be utilized to pay dividends, pay down long-term debt, or put into higher-yielding investments (Darsono & Ashari, 2010).

Firm Size

According to Brigham & Houston (Brigham & Houston, 2010), a company's size is determined by total assets, total sales, total earnings, tax loads, and other factors. According to Torang (Torang, 2012), the size of the company is determined by the number of members linked with the selection of techniques to control activities in order to achieve goals.

According to this definition, firm size is the value of a firm's size as measured by total assets, total sales, and total profits, affecting the firm's social performance and resulting in the attainment of company goals. According to Murhadi (Murhadi, 2013), firm size is calculated by translating the company's total assets into a natural logarithm. With the goal of eliminating excessive data volatility, Log Natural Total Assets is used to estimate firm size.

Conceptual Framework

The conceptual structure of this research is as follows, based on the previously given background of the problem:

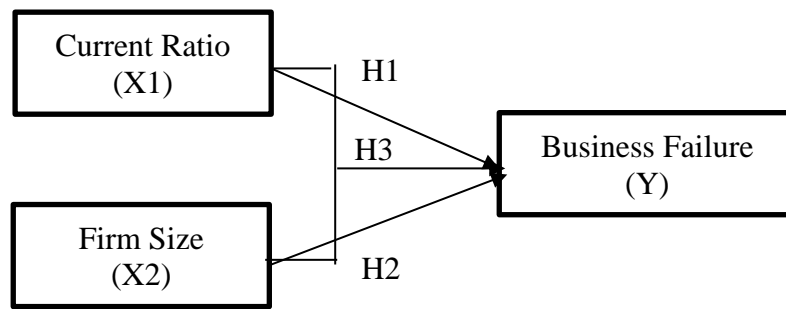


Figure 1. Conceptual Framework

Based on the picture above, the hypothesis that can be formulated is as follows:

- H1: There is an effect of the current ratio on business failure in companies listed on the IDX in 2019-2020.
- H2: There is an effect of the firm size on business failure in companies listed on the IDX in 2019-2020.
- H3: There is an effect of the current ratio and firm size on business failures in companies listed on the IDX in 2019-2020.

RESEARCH METHODOLOGY

Research design

Secondary data, such as Current Ratio and company size, were gathered from the internet for this study. Current Ratio and Firm Size statistics were collected. In this study, data from the website www.idx.com was used.

Population and Sample

The research population for this study is all companies listed on the Indonesia Stock Exchange in 2019-2020, which totals 713 companies. Purposive sampling was employed to pick the samples for this study. Purposive sampling is a non-random sampling strategy that takes into account certain factors (Sugiyono, 2016). Researchers use the following criteria to select their research sample is companies that have been listed on the indonesia stock exchange, companies that have been listed on the indonesia stock exchange before 2019, and annual financial report data available in 2020.

Based on the above criteria, the number of samples used is 441 companies.

Method of Data Collection

The data that will be used is from a secondary source. The information comes from the 2019-2020 financial statements of companies listed on the Indonesia Stock Exchange. The information utilized came from computations using the following ratios:

Business Failure

Several studies employing Z-Score to forecast the likelihood of company failure were undertaken by (Soedarmono et al., 2012), (Stiroh & Rumble, 2003), and (Kwan & Kwan, 2004). The following is the business failure risk formula (Kouassi et al., 2011):

$$Zscore = \frac{ROA - EQTA}{SDROA}$$

Information:

ROA = (Earning Before Tax / Total Assets) x 100%

EQTA = (Equity/ Total Assets) x 100%

SDROA = Standar Deviation from ROA

Current Ratio

The current ratio has a standard of 2:1 or 200%, which means that a company's current ratio of more than 200% is considered liquid, if it is less than 200% it is considered liquid (Danang, 2016). This ratio can be formulated as follows:

$$CR = \frac{Current\ Assets}{Current\ Liabilities} \times 100\%$$

Firm Size

According to Werner R. Murhadi (Murhadi, 2013), firm size is calculated by translating the company's total assets into a natural logarithm. With the goal of eliminating excessive data volatility, Log Natural Total Assets is used to estimate company size. The number of assets worth hundreds of billions or even trillions will be simplified using natural logs, without changing the fraction of the total number of assets.

$$Firm\ Size = Ln(Total\ Assets)$$

Classic assumption test

Before testing the hypothesis, the researcher first tested the classical assumptions, namely the normality test, multicollinearity test and heteroscedasticity test.

Data analysis method

The analytical method used in this study is multiple linear regression analysis. The model that will be used in this study is as follows:

$$Z\ Score_i = \beta_0 + \beta_1 CR_i + \beta_2 Size_i + e$$

Information:

- ZScore_i** = Risk of company business failure i
- β₀** = intersep
- β₁, β₂** = regression coefficient
- CR_i** = Current Ratio company i
- size_i** = Firm Size i
- e** = error term

RESULTS AND DISCUSSION

Descriptive statistics

Descriptive statistics is a type of statistical analysis that uses the average (mean), maximum, and minimum values to provide a general description of the features of each research variable.

A discussion of descriptive statistical analysis for normalized data was conducted in this paper. There are 441 samples of firm data that fulfill the research sample criteria for the 2019-2020 research period. However, it turns out that part of the 441 data that fit the criteria in this study did not pass the conventional assumption of normality test, necessitating the removal of certain outlier data before the data becomes normal. After removing 112 extreme data points (outliers), 329 organizations were left with regular data. The following are the findings of a descriptive statistical analysis of 329 companies:

Table 1. Descriptive statistics
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Current Ratio 2020	329	0,00	3,05	1,4118	0,66568
Firm Size 2020	329	25,01	33,52	29,2482	1,70299
Z Score 2020	329	0,26	58,70	24,9873	11,79240
Current Ratio 2019	329	0,00	2,94	1,3599	0,62873
Firm Size 2019	329	24,84	34,37	29,2065	1,73165
Z Score 2019	329	1,09	64,09	27,8050	13,48549
Valid N (listwise)	329				

Source: processed data, 2021

According to table 1, the descriptive statistics of the financial performance variable proxied by the current ratio (CR) have an average company CR of 2020 of 1.4118 and a company CR of 2019 of 1.3599, indicating that

the company's liquidity ratio listed on the IDX in 2019-2020 did not experience significant changes and the company's liquidity was still in a stable state.

Furthermore, the variable firm size in 2020 has an average value of 29.2482, while

firm size in 2019 is 29.2065, indicating that the average company listed on the IDX in 2019-2020 has a large size, with total assets exceeding Rp. 100,000,000,000 (one hundred billion rupiah), as per the IDX Board of Directors decision Kep-00001/BEI/01-2014. The business failure variable, which is proxied by the Z Score, has an average value of 24.9873 in 2020, and a value of 27.8050 in 2019. As a result, the greater the z score, the smaller the chance of a company failing. The value of Z Score, on the other hand, shows a considerable fall from 2019 to 2020. The company's failing state was driven by a lack of consumer purchasing interest during the covid-19 pandemic.

Hypothesis test

Hypothesis testing is a process for making decisions based on data analysis from both controlled experiments and observations (uncontrolled). The following are the findings of the research hypothesis test:

Partial test (t)

The t-test, also known as the partial test, is used to determine how each independent variable influences the dependent variable independently. The following are the findings of each study's partial hypothesis testing:

**Table 2. Partial test (t)
Coefficients^a**

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
1 (Constant)	49,148	9,724		5,054	0,000
Current Ratio	8,553	0,837	0,483	10,224	0,000
Firm Size	1,239	0,327	0,179	3,789	0,000

a. Dependent Variable: Z Score

Source: processed data, 2021

Based on the calculation results from table 2 above, it can be seen as follows the current ratio variable to the company's Z Score (Risk of failure) with a significant $0.000 < 0.05$ then H1 is accepted where the value indicates that the current ratio has an effect on the company's Z Score (Risk of failure), and firm Size variable on the company's Z Score (risk of failure) with a significant $0.000 < 0.05$ then H2 is accepted, meaning that the hypothesis (H2)

shows that Firm Size has an effect on the company's Z Score (Risk of failure).

Simultaneous test (f)

The F test was carried out to find out whether there was an effect between the current ratio and Firm Size variables simultaneously (simultaneously) on the Z Score (Risk of failure) in companies listed on the IDX in 2019-2020. For the results of the F test calculations can be seen in table 3 below:

**Tabel 3. Simultaneous test (f)
ANOVA^a**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	12571,329	2	6285,664	62,019	.000 ^b
Residual	33040,551	326	101,351		
Total	45611,880	328			

Dependent Variable: Z Score
 Predictors: (Constant), Firm Size, Current Ratio
 Source: processed data, 2021

According to the data, the simultaneous sig test value is 0.000 0.05, indicating that the independent variables current ratio and company size have a significant effect on the Z Score (Risk of failure) in companies listed on the IDX in 2019-2020, indicating that hypothesis 3 is supported.

Coefficient of Determination (R²)

The coefficient of determination test is used to determine how effective all independent variables are at explaining the variation of the dependent variable. In Table 4, the value of R Square is explained as follows:

**Tabel 4. Coefficient of Determination (R²)
 Model Summary^b**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.525 ^a	0,276	0,271	10,06734

Predictors: (Constant), Firm Size, Current Ratio
 Dependent variable, Z Score
 Source: processed data, 2021

Based on the calculations in table 4, the coefficient of determination (R²) is 0.276, indicating that the independent variable contributes 27.6% to the dependent variable, with the rest (100% - 27.6%) = 72.4% explained by factors outside the model under consideration.

According to this study, as the value of the risk of business failure (Z-Score) decreases, the likelihood of the company failing increases. In the opposite direction, when the value of business failure risk (Z-Score) increases, the likelihood of the company failing decreases. The association between the Current Ratio (CR) and the likelihood of business failure is positive (Z-Score). This indicates that the stronger a company's ability to meet its short-term obligations, the lower the chance of it going out of business.

The findings of this study are consistent with prior research (Pradana, 2020) titled "Analysis of Business Failure Risks in Go Public Transportation Companies on the Indonesia Stock Exchange." The results of the regression study suggest that in the transportation sector companies listed on the Indonesia Stock Exchange in 2017-2018, the Flow Ratio (CR) and company size have a substantial impact on business failure.

Furthermore, the findings of this study are corroborated by research conducted by Murni (2018), which reveals that the Current Ratio (CR) has a significant and favorable effect on the likelihood of business failure. Purnamandari dan Badera (2015) and Kouassi et al (2011) did study that found that the size of a company has a pretty big and beneficial impact on the likelihood of business failure.

CONCLUSION

The current ratio has an impact on the likelihood of a company failing. The association between the Current Ratio (CR) and the likelihood of business failure is positive (Z-Score). This indicates that the stronger a company's ability to meet its short-term obligations, the lower the chance of it going out of business. In this situation, despite the fact that the covid-19 epidemic has harmed the company's income, the company may retain its liquidity ratio and avoid failure. According to Riyanto (Riyanto, 2001), good capital built on own capital will be more resistant to failure risk. The existence of a significant and positive Current Ratio (CR) influence on the probability of business failure is consistent with the findings of previous studies (Murni, 2018).

The risk of a company failing is influenced by its size. The direction of the association between company size (size) and the likelihood of business failure is likewise favorable (Z Score). This suggests that the larger a firm is, the lower the danger of it going out of business. Basically, the higher a company's assets are, the higher its economic activity and revenues are. Companies, on the other hand, will find it difficult to maintain their assets during the COVID-19 pandemic. Companies are more likely to sell assets when their revenues are declining. As a result, the corporation employs a variety of techniques to protect its assets. As a result, the corporation employs a variety of techniques to protect its assets. The existence of a considerable and positive influence of company size on the probability of business failure is consistent with the findings of (Purnamandari & Badera, 2015) research and (Kouassi et al., 2011).

Simultaneously, the Current Ratio (CR) and firm size have a 27.6% impact on the likelihood of business failure in Indonesian enterprises listed on the stock exchange.

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