

Predicting Potential Bankruptcy PT. Wismilak Inti Makmur, Tbk Using The Altman Z-Score Method

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Abstract

This research aims to determine the company's financial performance and determine the potential for bankruptcy using the Altman z-score method at PT. Wismilak Inti Makmur Tbk. This type of research is quantitative descriptive while the population is all financial reports published by the company and the sample is the 2017-2021 financial reports. The data collection technique uses the documentation method. The data analysis technique uses the modified Altman z-score method. Based on the results of calculations using several ratios, only the EBIT to total assets ratio decreased while the other ratios in this study increased. For the results of the analysis and discussion of the modified Altman Z-score, it can be concluded that the company's financial condition for the 2017-2021 period is in good or healthy condition because the Z-score value is > 2.6 . Even though in 2021 the z-score will decline slightly, there is no risk of bankruptcy.

Keywords : *Altman z-score, Bankruptcy, Cigarettes, Company financial performance*

Abstrak

Penelitian ini bertujuan untuk mengetahui kinerja keuangan perusahaan dan mengetahui potensi kebangkrutan dengan menggunakan metode Altman z-score pada PT. Wismilak Inti Makmur Tbk. Jenis penelitian ini adalah deskriptif kuantitatif sedangkan populasinya adalah seluruh laporan keuangan yang diterbitkan oleh perusahaan dan sampelnya adalah laporan keuangan tahun 2017-2021. Teknik pengumpulan data menggunakan metode dokumentasi. Teknik analisis data menggunakan metode Altman z-score yang dimodifikasi. Berdasarkan hasil perhitungan menggunakan beberapa rasio, hanya rasio EBIT terhadap total aset yang mengalami penurunan sedangkan rasio lainnya dalam penelitian ini mengalami peningkatan. Untuk hasil analisis dan pembahasan altman z-score modifikasi dapat disimpulkan bahwa kondisi keuangan perusahaan periode 2017-2021 dalam keadaan baik atau sehat karena nilai Z-score $> 2,6$. Meski di tahun 2021 z-score akan sedikit menurun, namun tidak berisiko bangkrut

Kata Kunci: *Altman z-score, Kebangkrutan, Rokok, Kinerja keuangan perusahaan*

INTRODUCTION

One of the countries that are still pro and contra against cigarettes is Indonesia. Compared to the benefits, cigarettes do more harm than good to most people in their judgment. In addition to being harmful to the health and safety of smokers, cigarettes are a product that has a high risk for consumers. Therefore, by increasing cigarette excise, this is one way for the government to reduce the number of smokers' consumption. The government also places restrictions on smoking places to reduce the risk of dangerous diseases that can attack the community. The government also limits the broadcasting hours of cigarette advertisements so that they do not become consumption material for underage children. As a result, cigarette companies have difficulty in marketing their products ¹. But on the other hand the cigarette industry is the largest contributor to tax revenue in Indonesia, the existence of the cigarette industry also provides job opportunities for the people of Indonesia ². This shows that cigarette companies not only have a negative impact but also have a positive impact on many stakeholders from the small community to the government.

With the pros and cons above regarding the existence of these cigarettes, this can affect cigarette sales. If the cigarette company is closed, it will have an impact on several aspects including: 1. Impact on the state because cigarette companies are a contributor to state revenue from cigarette excise ³; 2. The impact on the number of layoffs that will be carried out by cigarette companies so that the number of unemployed in Indonesia will increase; and 3. Impact on tobacco farmers because some farmers in the area use tobacco as their job and source of income, if the cigarette company is closed, many farmers will lose their source of income from tobacco products ⁴.

The emergence of the trend of e-cigarettes or vaping has resulted in a decline in cigarette sales in Indonesia. In addition to the use of vaping which is more comfortable than tobacco cigarettes, the existence of vaping is expected to reduce the number of users of tobacco cigarettes. This is without reason, tobacco cigarettes create more air pollution while vaping only emits water vapor. Where the risky chemical content contained in vaping is a small part of the content contained in tobacco cigarettes, according to several research results. This has caused people to start switching from tobacco cigarettes to vaping and this has also caused a decline in sales in the cigarette industry.

PT. Wismilak Inti Makmur, Tbk is one of the sixth largest cigarette industries in Indonesia which is part of the Wismilak Group, where the industry was founded on September 12, 1962 and is based in Surabaya. The achievement that had been achieved was the success of the industry in carrying out the initial public offering of the Company's shares to the public. This industry is the parent industry of PT Gelora Djaja (producer) and PT Gawih Jaya (distributor) with the main types of cigarettes being SKT and SKM. The scope of this industry includes the creation of cigarette seasonings, filters and other cigarette accessories; marketing

¹ Muchjidin Rachmat, "Pengembangan Ekonomi Tembakau Nasional: Kebijakan Negara Maju Dan Pembelajaran Bagi Indonesia," *Analisis Kebijakan Pertanian* 8, no. 1 (2010): 67–88, <https://doi.org/10.21082/akp.v8n1.2010.67-83>.

² Budianto Ryan Alan, "POLA KOMUNIKASI ANTARA ORANG TUA DENGAN MAHASISWI YANG KECANDUAN MEROKOK DI SURABAYA (Studi Deskriptif Pola Komunikasi Antara Orang Tua Dengan Mahasiswi Yang Kecanduan Merokok Di Surabaya)" (UPN Jatim, 2012).

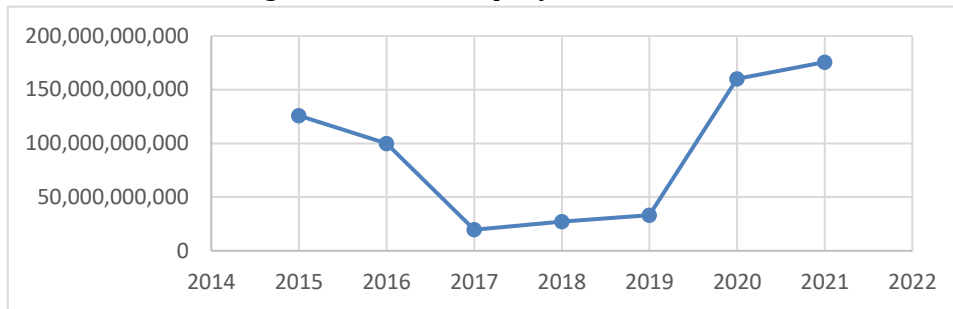
³ Ibid

⁴ Rachmat, "Pengembangan Ekonomi Tembakau Nasional: Kebijakan Negara Maju Dan Pembelajaran Bagi Indonesia."

and sales of cigarettes and their accessories; and participation in kretek cigarette manufacturers. The industry continues to strive to comply with applicable laws and regulations, related to good manufacturing practices; health, safety, security, and zones; industrial governance (www.wismilak.com). To conduct this research, it is necessary to object to cigarette companies in Indonesia. The choice of research object is because this research requires objects that have income statements that tend to fluctuate or be unstable and income statements of research objects tend to fluctuate or be unstable every year. This can be seen from the graph data of the income statement of PT. Wismilak Inti Makmur Tbk (www.idx.co.id)

Figure 1.

Profit growth of the company Period 2015-2021

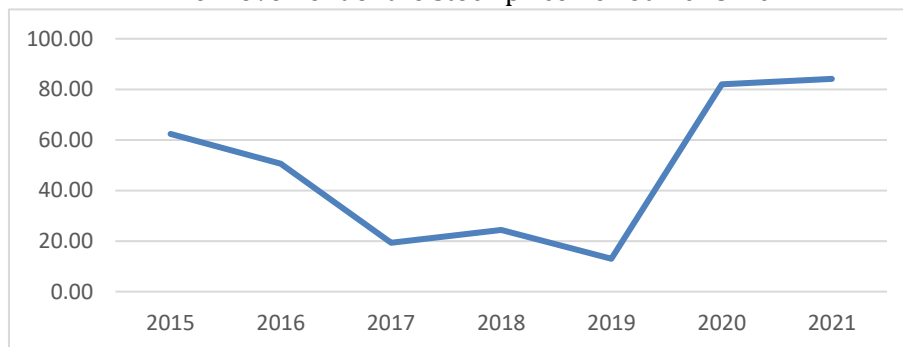


Source: processed data

This is supported by the condition of the stock price at company which tends to fluctuate or be unstable every year. This is due to, among others, internal and external factors consisting of: 1. Internal factors, caused by financial reports related to NPM and ROE as well as announced diversification returns; 2. External factors, caused by information from the government regarding interest rates and rupiah exchange rates as well as circulating issues both from within and outside the country ⁵. The following chart of the stock price of PT. Wismilak Inti Makmur Tbk period 2015-2021:

Figure 2.

The movement of the stock price Period 2015-2021



Source: processed data

⁵ Siti Sumarni, "ANALISIS FAKTOR – FAKTOR YANG MENYEBABKAN HARGA SAHAM TURUN PADA POSISI LABA BERSIH DAN EARNING PER SHARE MENINGKAT (Studi Kasus Pada Perusahaan Manufaktur Sektor Barang Konsumsi Yang Terdaftar Bursa Efek Indonesia Tahun 2015-2018)" (UNIVERSITAS MUHAMMADIYAH PALEMBANG, 2019).

One of the unavoidable risks is bankruptcy, but the risks in it can be minimized. In 1968 an analytical tool that connected various ratios in financial statements as variables and combined into an equation was created, the analysis tool was the Altman Z-score. According to ⁶ from these results produce a Z value which is a value used in predicting the state of the industry both in healthy and bankrupt conditions. This research was conducted based on several previous studies, where as a whole the previous research became a reference in this research ⁷

Presentation of the company's financial condition in a transparent and periodic manner is called financial statements ⁸. There are several purposes for making or structuring financial statements, including: 1. Mapping data about the type and amount of industrial assets at this time; 2. Mapping data on the type and amount of industry finance at this time; 3. Mapping data on the type and amount of income and expenditure in a certain period; 4. Mapping data on changes in assets, liabilities, and capital of the industry itself; 5. Mapping data on management performance; and 6. Mapping data on notes to industry financial statements ⁹.

Universally there are 5 (five) types of financial statements that can be prepared, including ¹⁰: 1. The balance sheet is a company's financial position report consisting of assets and debts where the company's financial condition must be in a balanced state so that it can be said that the performance is balanced. Good; 2. An income statement is a report that contains the company's position in making a profit or incurring a loss based on the amount of income earned with costs incurred 3. Report on Changes in Capital is a report that contains information regarding the current capital obtained after a reduction from the prive; 4. A statement of cash flows is a report that displays all aspects, both directly and indirectly, that affect cash where the cash report consists of incoming and outgoing cash flows; 5. Notes to reports on financial reports are descriptions of reports contained in the financial statements themselves

Bankruptcy is uncertainty about a result obtained by a company with a loss-making condition ¹¹. Condition where a company fails to pay off debts with the results obtained is called

⁶ Komang D and Ni K. Lely M, "Analisis Komparasi Potensi Kebangkrutan Dengan Metode Z – Score Altman, Springate, Dan Zmijewski Pada Industri Kosmetik Yang Terdaftar Di Bursa Efek Indonesia," *E Jurnal Akuntansi* 1, no. 7 (2014): 48–63.

⁷ Hikmah and Sri Afridola, "Metode Altman Z-Score Untuk Memprediksi Kebangkrutan Perusahaan Manufaktur Di Kota Batam," *Seminar Nasional Ilmu Sosial Dan Teknologi*, 2018, 313, <https://doi.org/10.24912/jmieb.v2i2.1048>; Maria Florida Sagho and Ni Ketut Lely Aryani Merkusiwati, "Penggunaan Metode Altman Z-Score Modifikasi Untuk Memprediksi Kebangkrutan Bank Yang Terdaftar Di Bursa Efek Indonesia," *E-Jurnal Akuntansi* 11, no. 3 (2015): 730–31, <https://ojs.unud.ac.id/index.php/Akuntansi/article/download/12789/9292>; Abdul Kadim and Nardi Sunardi, "Pengaruh Analisa Kesehatan Dan Kebangkrutan Dengan Pendekatan Altman Z-Score Terhadap Harga Saham Industri Konstruksi Di Indonesia Yang Listing Di Bei Periode 2013-2017," *Jurnal SEKURITAS (Saham, Ekonomi, Keuangan Dan Investasi)* 1, no. 4 (2018): 52–65, <https://doi.org/10.32493/skt.v1i4.1379>; Abdul Kadim and Nardi Sunardi, "ANALISIS ALTMAN Z-SCORE UNTUK MEMPREDIKSI KEBANGKRUTAN PADA BANK PEMERINTAH (BUMN) DI INDONESIA TAHUN 2012-2016," *Jurnal Sekuritas* 1, no. 3 (2018): 142–56.

⁸ Kasmir, *Analisis Laporan Keuangan* (Jakarta: Raja Grafindo Persada, 2014); Sofyan Syafri Harahap, *Analisis Kritis Laporan Atas Laporan Keuangan* (Jakarta: Raja Grafindo Persada, 2010).

⁹ Kasmir, *Analisis Laporan Keuangan*.

¹⁰ Kasmir.

¹¹ Rico Lesmana, *Financial Performance Analyzing : Pedoman Menilai Kinerja Keuangan Untuk Perusahaan Tbk., Yayasan, Bumn, Bumdan Dan Organisasi Lainnya* (Jakarta: Elex Media Komputindo, 2003).

bankruptcy. This condition can be overcome by using various analytical tools including measuring financial performance using financial ratios to avoid this ¹².

Bankruptcy occurs due to a form of failure that occurs in an industry, the failure referred to includes ¹³: 1. Cash conditions are inadequate or costs are greater than the income earned by the company causing losses, where this condition is a form of company failure and beyond the expectations or goals of a profit-oriented company; 2. The condition of the company is unable to manage cash and capital, causing the company to lack funds. This financial failure is referred to as bankruptcy which distinguishes between under cash flow and under stock.

Factors that can cause bankruptcy in the industry include ¹⁴ : 1. Universal aspects consisting of: a. Economic aspects caused by financial policies and interest rates, product inflation and deflation, foreign currency devaluation or revaluation, foreign trade surpluses or deficits and the company's balance of payments; b. Social aspects caused by chaos in society and changes in lifestyle that have an impact on the demand for quality human resources; c. Aspects of technology that are not matched by user readiness, management that is not planned and integrated and management that is not ready for the existence of this technology; d. Aspects of the government related to policies related to many things such as subsidies, import export tariffs and banking and/or labor policies; 2. External Aspects consisting of: a. In the customer aspect, companies must identify consumer concerns so they don't lose customers, so consumers don't switch to competitors to create new customers arriving; b. On the supplier/creditor aspect, the focus lies on accuracy in analyzing lending and repayments that have an impact on company liquidity; c. Aspects of competitors, concentration on things that are given to consumers as evaluation material; 3. Internal Aspect consisting of: a. Overpaid bad credit arrears; b. Chaotic management effectiveness; c. fraud and abuse of authority.

Corporate bankruptcy is also usually found several managerial and operational signs or indicators, including ¹⁵: 1. Indicators of the business environment, low economic growth makes a fairly important indicator of weak business opportunities, especially if at the same time there are many new companies. entering the market. The size of certain companies is the reason for the shrinking of other companies; 2. Internal indicators, management is not able to make business forecasts with any analytical tools used, so management has difficulty developing a proactive attitude. More likely to be reactive, and therefore usually late in anticipating change; 3. Combined indicators, often companies that are sick are caused by the interaction of threats that come from the business environment and weaknesses that come from the company's environment itself. If it is caused by both, it usually brings more complex consequences than that caused by one or the other. There are several stages of a company experiencing a bankruptcy, the stages include:

¹² Toto Prihadi, *Analisis Laporan Keuangan : Teori Dan Aplikasi* (Jakarta: PPM, 2013).

¹³ Eugene F. Brigham and Joel F. Houston, *Fundamentals of Financial Management* (Jakarta: Erlangga, 2001).

¹⁴ Rafles W. Tambunan, Dwiatmanto, and M.G. Wi Endang N.P, "Analisis Prediksi Kebangkrutan Perusahaan Dengan Menggunakan Metode Altman (Z-Score) (Studi Pada Subsektor Rokok Yang Listing Dan Perusahaan Delisting Di Bursa Efek Indonesia Tahun 2009 – 2013)," *Jurnal Administrasi Bisnis* 2, no. 1 (2015): 1–11, administrasibisnis.studentjournal.ub.ac.id.

¹⁵ Fakhrurozie, "Analisis Pengaruh Kebangkrutan Bank Dengan Metode Altman Z-Score Terhadap Harga Saham Perusahaan Perbankan Di Bursa Efek Jakarta" (Universitas Negeri Semarang, 2007).

Figure 3.
Stages of bankruptcy



Source: Stages of bankruptcy ¹⁶

The following is an explanation of the stages of bankruptcy:

- a. The first stage is a decrease in the ROA ratio or called latency at this stage
- b. In the second stage, the company does not have enough cash to pay its obligations even though the company is in a profit condition or is called a shortage of cash at this stage
- c. The third stage enters the emergency stage, where the company is close to a bankrupt position or is called financial distress at this stage
- d. The fourth stage, the company is no longer able to fulfill its obligations where in this position the company has been declared bankrupt or called bankruptcy at this stage

The following below is the growth of the Altman Z-score model, including:

1. Original Model. This model uses the bankruptcy equation which is used to predict a public manufacturing industry. The following are the similarities of this original model ¹⁷ :

$$Z - score = 1,2 (X1) + 1,4 (X2) + 3,3 (X3) + 0,6 (X4) + 1,0 (X5)$$

The "cut off" values for this index are:

- Z < 1,81 : Bankrupt
1,81 < Z < 2,9 : Grey area
Z > 2,9 : Healthy / not bankrupt

2. Repair Model. Improvements are made by re-estimating the variables so that the bankruptcy prediction model can not only be used by manufacturing industries that go public. The component that is replaced is the X4 equation from Market Value of Equity converted to Book Value of Equity. This change is intended so that the equation can be used

¹⁶ Gholamreza Kordestani et al., "Ability of Combinations of Cash Flow Components to Predict Financial Distress Pinigū Srautū Komponentū Deriniū Galimybės Numatyti Finansinius Sunkumus" 12, no. 3 (2011): 277–85, <https://doi.org/10.3846/btp.2011.28>.

¹⁷ Mamduh M. Hanafi and Abdul Halim, *Analisis Laporan Keuangan* (Yogyakarta: UPP STIM YKPN, 2018). 128

by private industries that do not have a stock market value¹⁸. The following is the equation of the repair model :

$$Z - score = 0,717 (X1) + 0,847 (X2) + 3,107 (X3) + 0,420 (X4) + 0,998 (X5)$$

The "cut off" values for this index are:

- Z < 1,23 : Bankrupt
- 1,20 < Z < 2,9 : Grey area
- Z > 2,9 : Healthy / not bankrupt

3. Modification Model. Modification of the model is done so that it can be applied to all types of existing industries. In this modified model, the X5 variable (sales/total asset) is eliminated, this is because the ratio is very varied for different industries¹⁹. The following is the equation of the modified model :

$$Z - score = 6,56 (X1) + 3,26 (X2) + 6,72 (X3) + 1,05 (X4)$$

The "cut off" values for this index are:

- Z < 1,1 : Bankrupt
- 1,1 < Z < 2,6 : Grey area
- Z > 2,6 : Healthy / not bankrupt

RESEARCH METHOD

This type of research is descriptive quantitative, namely research that describes, explains or summarizes various conditions, phenomena or various variables in the form of data that has been collected as it is²⁰. The research object is a cigarette company listed on the Indonesian stock exchange with the WIIM code. The population in this study are all financial reports issued by the company. The sample in this study is the 2017-2021 financial statements issued by the company and can be downloaded at <https://www.idx.co.id/>²¹

To predict bankruptcy at PT. Wisnilak Inti Makmur Tbk uses the modified altman z-score method because this method is comprehensive and can be used by manufacturing companies, non-manufacturers, and bond issuing companies. The following are data analysis techniques in this study²², including:

Working Capital to Total Assets (X_1). This ratio shows the company's ability to generate net working capital from the total assets owned. Here's the formula for Working Capital to Total Assets:

¹⁸ Ayu Suci Ramadhani and Niki Lukviarman, "Perbandingan Analisis Prediksi Kebangkrutan Menggunakan Model Altman Pertama, Altman Revisi, Dan Altman Modifikasi Dengan Ukuran Dan Umur Perusahaan Sebagai Variabel Penjelas (Studi Pada Perusahaan Manufaktur Yang Terdaftar Di Bursa Efek Indonesia)," *Jurnal Siasat Bisnis* 13, no. 1 (2009): 15–28, <https://doi.org/10.20885/jsb.vol13.iss1.art2>.

¹⁹ Ramadhani and Lukviarman.

²⁰ Suharsimi Arikunto, *Prosedur Penelitian : Suatu Pendekatan Praktik* (Jakarta: Rineka Cipta, 2010).

²¹ Idx, "Laporan Keuangan Dan Tahunan," 2023, <https://www.idx.co.id/id/perusahaan-tercatat/laporan-keuangan-dan-tahunan/>. Date accessed : 18 September 2023

²² Ramadhani and Lukviarman, "Perbandingan Analisis Prediksi Kebangkrutan Menggunakan Model Altman Pertama, Altman Revisi, Dan Altman Modifikasi Dengan Ukuran Dan Umur Perusahaan Sebagai Variabel Penjelas (Studi Pada Perusahaan Manufaktur Yang Terdaftar Di Bursa Efek Indonesia)."

$$X_1 = \frac{\text{net working capital}}{\text{total assets}} \times 100\%$$

This ratio shows good performance if the result is increasing. This is because the company's performance in managing its assets works well in generating net working capital. Net working capital is obtained from the reduction between current assets and current liabilities, while total assets are the result of the sum of current assets and fixed assets of the company.

Retained Earning To Total Assets (X_2). This ratio shows the company's ability to generate retained earnings from the company's total assets. The following formula Retained Earning to Total Assets:

$$X_2 = \frac{\text{retained earning}}{\text{total assets}} \times 100\%$$

This ratio shows good performance if the result is increasing. This is because the company's performance in generating retained earnings runs maximally by using the total assets owned by the company. Retained earnings are company profits that should be distributed to the company's shareholders but are retained/not distributed with the aim of being in addition to reserve capital for companies whose financial condition is thin.

Earning Before and Taxes to Total Assets (X_3). This ratio shows the company's ability to generate profits as measured by the amount of profit before tax compared to total assets. Here's the formula for Earning Before and Taxes to Total Assets:

$$X_3 = \frac{EBIT}{\text{total assets}} \times 100\%$$

This ratio shows good performance if the result is increasing. This is because the company's performance in generating operating profit runs maximally by using the total assets owned by the company. In stages, the company's profit is divided into 3 (three) parts including: profit before bank interest and taxes, profit before tax and profit after tax

Total Equity to Total Debt Ratio (X_4). This ratio is used to measure the company's ability to meet its own capital obligations. The following is the formula for Total Equity to Total Debt Ratio:

$$X_4 = \frac{\text{total equity}}{\text{total debt}} \times 100\%$$

This ratio shows good performance if the result is increasing. This is because the company's performance is able to guarantee the overall debt borne by the company by using the entire equity owned by the company. Equity is also known as capital. Capital in the company consists of own capital and foreign capital, both of which have different impacts on the company's operations

After the overall data from the calculations are collected, then the data is analyzed by researchers using the modified standard Altman z-score method based on calculations from the following research results:

$$Z - \text{score} = 6,56 (X1) + 3,26 (X2) + 6,72 (X3) + 1,05 (X4)$$

The "cut off" values for this index are:

- Z < 1,1 : Bankrupt
- 1,1 < Z < 2,6 : Grey area
- Z > 2,6 : Healthy / not bankrupt

Information:

Z : Overall index

- X_1 : Working Capital To Total Assets
 X_2 : Retained Earnings To Total Assets
 X_3 : Earnings Before Interest and Taxes To Total Assets
 X_4 : Market Value Equity To Book Value of Total Debt

RESULT AND DISCUSSIONS

The following a calculation using four variables to measure the financial performance of PT. Wismilak Inti Makmur Tbk period 2017-2021, including the following:

1. Net working capital to total assets (X_1)

Before calculating Net Working Capital to Total Assets (X_1) you must first calculate the company's net working capital, the following are the calculations:

Table 1.

Net working capital PT. Wismilak Inti Makmur Tbk 2017-2021 period			
Year	Current asset	Current debt	Net working capital
2017	988.814.005.395	341.705.551.602	647.108.453.793
2018	996.925.071.640	293.711.761.060	703.213.310.580
2019	861.172.306.233	160.790.695.868	700.381.610.365
2020	888.979.741.744	150.202.377.711	738.777.364.033
2021	948.430.163.983	157.443.942.631	790.986.221.352

Source: processed data

From the results of the calculations in table 1 above, it shows the results of obtaining net working capital of PT. Wismilak Inti Makmur Tbk in 2017 to 2021. From the calculation results, it shows that the results tend to increase every year. In 2017 to 2018 there was a significant increase, but in 2019 it decreased slightly and increased again in 2020 to 2021 significantly. From the results of the calculation of the net working capital, it can be continued by calculating the Net Working Capital to Total Assets which is one of the indicators in the measurement using the Altman z-score. Here's the calculation:

Table 2.

Net Working Capital to Total Asset PT. Wismilak Inti Makmur Tbk 2017-2021 period

Year	Net working capital	Total assets	Net Working Capital to Total Asset
2017	647.108.453.793	1.342.700.045.391	48,19%
2018	703.213.310.580	1.353.634.132.275	51,95%
2019	700.381.610.365	1.225.712.093.041	57,14%
2020	738.777.364.033	1.255.573.914.558	58,84%
2021	790.986.221.352	1.299.521.608.556	60,87%

Source: processed data

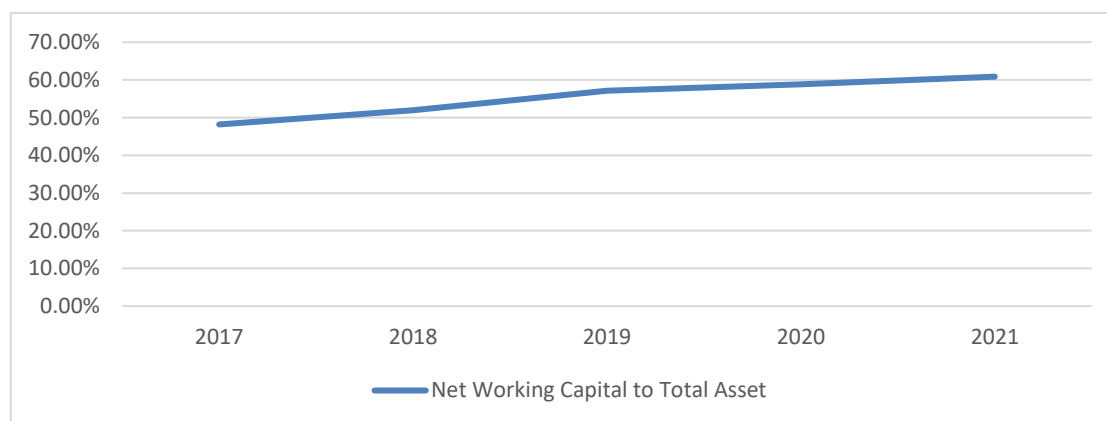
The explanation in table 2 above is as follows: In 2017, the ratio of X_1 was 0.48, which means that for every Rp. 1.00 total assets can be guaranteed by NWC of 0.48. The value of this ratio is the result of the division between NWC of Rp.647,108,453,793 with total assets of Rp.1,342,700,045,391. In 2018 the X_1 ratio increased by 0.52 compared to 2017 which was

0.48. Which means that every IDR 1.00 total assets can be guaranteed a NWC of 0.52. The value of this ratio is the result of the division between NWC of Rp.703,213,310,580 with total assets of Rp.1,353,634,132,275. In 2019, the X_1 ratio was 0.57, which means that for every Rp1.00 the total assets can be guaranteed by a NWC of 0.57. This year the ratio increased by 0.05 compared to the previous year. The value of this ratio is the result of the division between NWC of Rp700,381,610,365 with total assets of Rp1,225,712,093,041. In 2020 the X_1 ratio increased compared to 2017. In 2018, the X_1 ratio was 0.59, which means that for every IDR1.00 total assets can be guaranteed by NWC of 0.59. The value of this ratio is the result of the division between NWC of Rp738,777,364,033 with total assets of Rp1,255,573,914,558. In 2021, the ratio of X_1 is 0.61, which means that for every Rp. 1.00 the total assets can be guaranteed by NWC of 0.61. The value of the X_1 ratio in 2018 increased by 0.02% compared to the previous year. The value of this ratio is the result of the division between NWC of Rp790,986,221,352 with total assets of Rp1,299.521,608,556.

Based on the results of the calculation of NWC to total assets in table 2, the time series analysis in 2017 to 2021 experienced a significant increase. This shows that the company's performance in managing its assets in generating NWC is good. The results of the calculation of NWC to total assets in 2017 to 2021 based on the standard of 16% to 21%²³ show that the company's performance is not bankrupt because the calculation results are above the standard. The results of the above calculations can be illustrated in the graph below:

Figure 4.

Net Working Capital to Total Asset



Source: processed data

2. Retained earning to total assets (X2)

Table 3.

Retained earning to Total Asset PT. Wisnilak Inti Makmur Tbk 2017-2021 period

Year	Retained earning	Total assets	Retained earning to Total Asset
2017	423.744.012.533	1.342.700.045.391	31,56%

²³ A.M .I. Lakshan and W.M.H.N.Wijekoon, "The Use of Financial Ratios in Predicting Corporate Failure in Sri Lanka," *GSTF Journal on Business Review* 2, no. 4 (2013): 37–43, https://doi.org/10.5176/2010-4804_2.4.249.

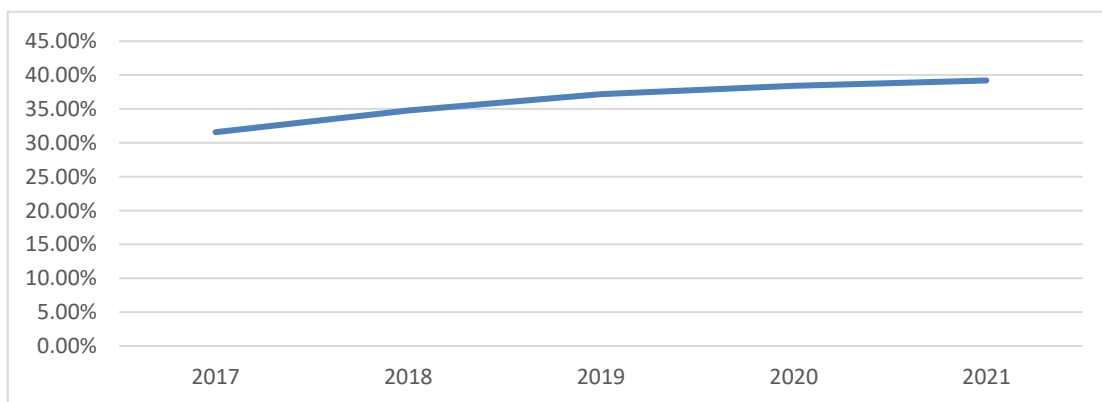
Year	Retained earning	Total assets	Retained earning to Total Asset
2018	470.639.018.175	1.353.634.132.275	34,77%
2019	455.694.384.803	1.225.712.093.041	37,18%
2020	482.087.506.833	1.255.573.914.558	38,40%
2021	509.240.841.014	1.299.521.608.556	39,19%

Source: processed data

In 2017, the ratio X_2 showed 0.31 which means that every Rp1.00 of the total assets owned by PT. Wismilak Inti Makmur Tbk was able to generate RE of 0.31. The value of the ratio is the result of the division of RE of Rp423,744,012,533 with total assets of Rp1,342,700,045,391. In 2018, the X_2 ratio increased from the previous year, which was 0.35, which means that for every Rp. 1.00 total assets owned by PT. Wismilak Inti Makmur Tbk is able to generate RE of 0.35. The value of the ratio is the result of the division of RE of Rp.470,639,018,175 with total assets of Rp.1,353,634,132,275. In 2019, the ratio of RE to total assets increased to 0.37, which means that for every Rp. 1.00 total assets owned by PT. Wismilak Inti Makmur Tbk was able to generate RE of 0.37. The value of this ratio is the result of the division of RE of IDR 455,694,384,803 with total assets of IDR 1,225,712,093,041. In 2020, the X_2 ratio increased from the previous year, namely 0.38, which means that for every Rp. 1.00 total assets owned by PT. Wismilak Inti Makmur Tbk was able to generate RE of 0.38. The value of the ratio is the result of the division of RE of Rp.482,087,506,833 with total assets of Rp.1,255,573,914,558. In 2021, the X_2 ratio will increase from the previous year, namely 0.39, which means that for every Rp. 1.00 the total assets owned by PT. Wismilak Inti Makmur Tbk was able to generate RE of 0.39. The value of the ratio is the result of the division of RE of Rp509,240,841,014 with total assets of Rp1,299.521,608,556.

Based on the results of the calculation of RE to total assets in table 3, the time series analysis in 2017 to 2021 experienced a significant increase. This shows the company's performance in generating RE by using the company's total assets is good. The results of the above calculation can be illustrated in the graph below:

Figure 5.
Retained earning to Total Asset



Source: processed data

3. Earning before interest and tax to total assets (X3)

Table 4.

Earning before interest and tax to total assets
PT. Wisnilak Inti Makmur Tbk 2017-2021 period

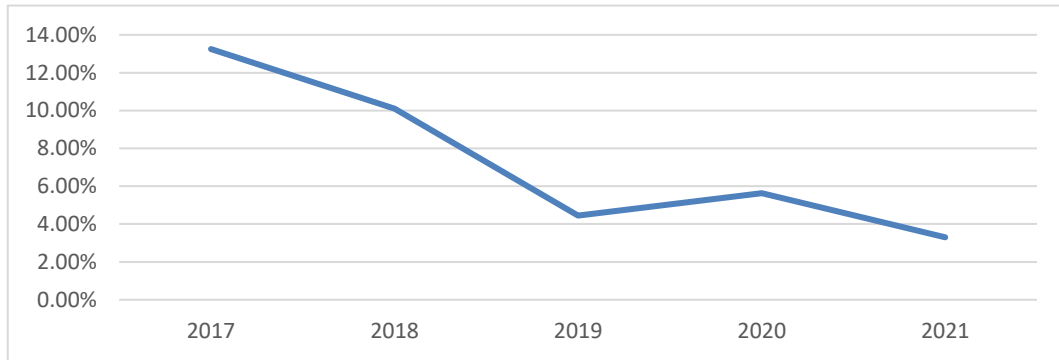
Year	EBIT	Total assets	EBIT to total assets
2017	177.962.941.779	1.342.700.045.391	13,25%
2018	136.662.997.252	1.353.634.132.275	10,10%
2019	54.491.308.212	1.225.712.093.041	4,45%
2020	70.730.637.719	1.255.573.914.558	5,63%
2021	42.874.167.628	1.299.521.608.556	3,30%

Source: processed data

In 2017, the X_3 ratio was 0.13 which means that every Rp1.00 of total assets can generate a profit before tax of 0.13. The value of this ratio is the result of the distribution of EBIT Rp. 177,962,941,779 with total assets of Rp. 1,342,700,045,391. In 2018, EBIT on total assets decreased from the previous year to 0.10, which means that every Rp1.00 of total assets can generate a profit before tax of 0.10. The value of this ratio is the result of the distribution of EBIT Rp. 136,662,997,252 with total assets of Rp. 1,353,634,132,275. In 2019, the X_3 ratio decreased drastically from the previous year to 0.04 which means that every Rp1.00 of total assets can generate a profit before tax of 0.04. The value of this ratio is the result of the distribution of EBIT Rp. 54,491,308,212 with total assets of Rp. 1,225,712,093,041. In 2020, EBIT on total assets has increased from the previous year to 0.06, which means every Rp1.00 total assets can generate an EBT of 0.06. The value of the ratio is the result of the distribution of EBIT Rp.70,730,637,719 with total assets of Rp.1,255,573,914,558. In 2021, the X_3 ratio will decrease to 0.03 which means that every Rp1.00 of total assets can generate a EBIT 0.03. The value of this ratio is the result of the distribution of EBIT Rp. 42,874,167,628 with total assets of Rp. 1,299,521,608,556.

Based on the results of the calculation of EBIT to total assets in table 4, the time series analysis in 2017 to 2021 experienced a declining performance. This shows that the company's performance in generating operating profit by using the total assets of the company tends to be less good. This can be seen in 2017 to 2019 where the acquisition rate continues to decline significantly and in 2020 it has increased and in 2021 it has decreased again. This factor is one of the factors that results in the possibility of the company going bankrupt The results of the above calculations can be illustrated in the graph below:

Figure 6.
Earning before interest and tax to total assets



Source: processed data

4. Total equity to total debt ratio (X₄)

Table 5

Total equity to total debt ratio PT. Wisnilak Inti Makmur Tbk 2017-2021 period

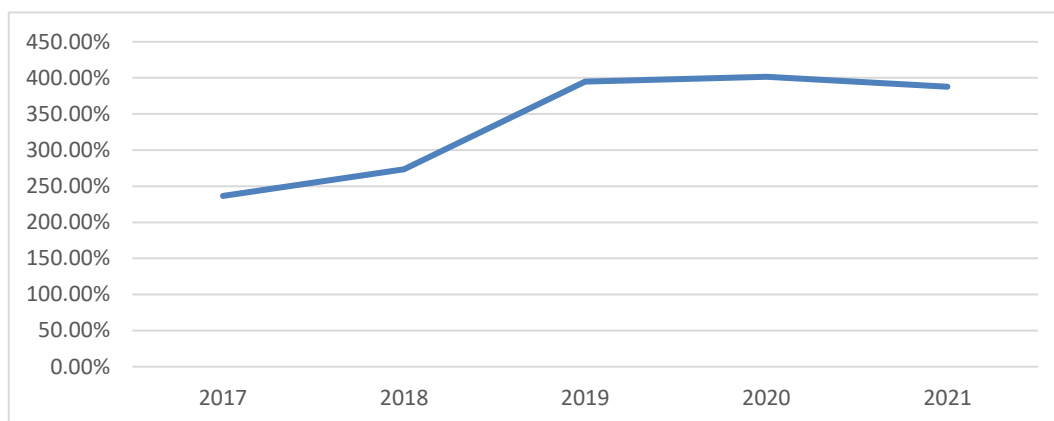
Year	Total equity	Total debt	Total equity to total debt ratio
2017	943.708.980.906	398.991.064.485	236,52%
2018	991.093.391.804	362.540.740.471	273,37%
2019	978.091.361.111	247.620.731.930	395,00%
2020	1.005.236.802.665	250.337.111.893	401,55%
2021	1.033.170.577.477	266.351.031.079	387,90%

Source: processed data

In 2017, the X₄ ratio was 2.36, which means that for every Rp1.00 of total debt, a total equity of 2.36 can be guaranteed. The value of the ratio is the result of the division of total equity or capital of Rp.943,708,980,906 with total debt or liability of Rp.398,991,064,485. In 2018, the X₄ ratio increased compared to the previous year to 2.73, which means that for every Rp1.00 total debt can be guaranteed by a total equity of 2.73. The value of the ratio is the result of the division of the total equity or capital of Rp.991,093,391,804 with a total debt or liability of Rp.362,540,740,471. In 2019, the ratio of total equity or capital to total debt or liabilities increased to 3.95, which means that every Rp1.00 of total debt can be guaranteed by a total equity of 3.95. The value of the ratio is the result of the division of the total equity or capital of Rp. 978,091,361,111 with a total debt or liability of Rp. 247,620,731,930. In 2020, the ratio of total equity or capital to total debt or liabilities has increased to 4.01 which means that every Rp1.00 of total debt can be guaranteed by a total equity of 4.01. The value of the ratio is the result of the division of total equity or capital of Rp.1,005,236,802,665 with total debt or liabilities of Rp.250,337,111,893. In 2021, X₄ experienced a decrease compared to the previous year to 3.88, which means that for every IDR1.00 the total debt can be guaranteed by a total equity of 3.88. The value of the ratio is the result of the division of total equity or capital of Rp1,033,170,577,477 with total debt or liabilities of Rp266,351,031,079.

Based on the results of the calculation of the total equity to total debt ratio in table 5, the time series analysis in 2017-2021 experienced an increasing performance. This shows that the company's performance in guaranteeing its debt with its equity is good. This can be seen from the results of the acquisition in 2017-2020 which continued to experience a significant increase even though in 2021 it decreased but overall performance at this ratio was avoiding bankruptcy. The results of the above calculations can be illustrated in the graph below:

Figure 7
Total equity to total debt ratio



Source: processed data

5. Altman Z-score method

The following is an equation model from the calculation results of the modified Altman z-score method:

$$Z - score = 6,56 (X1) + 3,26 (X2) + 6,72 (X3) + 1,05 (X4)$$

The cut off values used are:

- Z < 1,1 : Bankrupt
- 1,1 < Z < 2,6 : Grey area
- Z > 2,6 : Not bankrupt

The next step is to add up the multiplication results of each of the above variables, to determine the prediction of bankruptcy at PT. Wismilak Inti Makmur Tbk using the modified altman z-score equation method. Can be seen in the table below:

Table 6

Altman Z-score method analysis results PT. Wismilak Inti Makmur Tbk 2017-2021 period

Year	X1	X2	X3	X4	Z-score	Information
2017	0,48	0,31	0,13	2,36	7,51	Not bankrupt
2018	0,52	0,35	0,1	2,73	8,09	Not bankrupt
2019	0,57	0,37	0,04	3,95	9,36	Not bankrupt
2020	0,59	0,38	0,06	4,01	9,72	Not bankrupt
2021	0,61	0,39	0,03	3,88	9,55	Not bankrupt

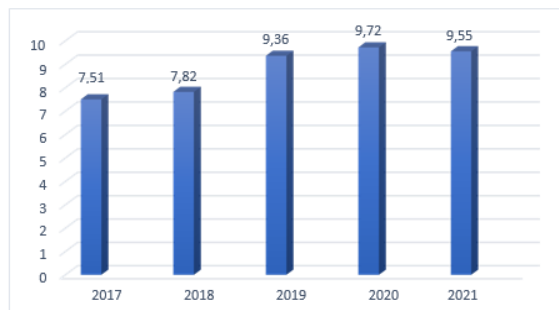
Source: processed

It can be seen from the calculation of the modified altman z-score method at PT. Wismilak Inti Makmur Tbk for the 2017-2021 period shows that the company is in good health and has not gone bankrupt because the average z-score is above 2.6 or $Z > 2.6$, which means the company is in good health or not bankrupt.

In 2017 the z-score of Company of 7.51 this shows that in 2017 the company was in good health or not bankrupt. This value is obtained from the calculation of the indicators in the altman z-score calculation which consists of working capital to total assets as X1 which is 0.48; retained earnings to total assets as X2 which is equal to 0.31; earnings before and taxes to total assets as X3 which is 0.13; and the total equity to total debt ratio as X4 which is 2.36 so that the z-score is 7.51. In 2018 the z-score of Company experienced an increase of 8.09 this shows that in 2018 the company was in good health or not bankrupt. This value is obtained from the calculation of the indicators in the altman z-score calculation which consists of working capital to total assets as X1 which is 0.52; retained earnings to total assets as X2, which is 0.35; earnings before and taxes to total assets as X3 which is 0.10; and the total equity to total debt ratio as X4 which is 2.73 so that the z-score is 8.09. In 2019 the z-score of Company has increased by 9.36 this shows that in 2019 the company is in good health or not bankrupt. This value is obtained from the calculation of the indicators in the altman z-score calculation which consists of working capital to total assets as X1 which is 0.57; retained earnings to total assets as X2, which is 0.37; earnings before and taxes to total assets as X3 which is 0.04; and the total equity to total debt ratio as X4 which is 3.95 so that the z-score is 9.36. In 2020 the z-score of Company has increased by 9.72 this shows that in 2020 the company is in good health or not bankrupt. This value is obtained from the calculation of the indicators in the altman z-score calculation which consists of working capital to total assets as X1 which is 0.59; retained earnings to total assets as X2, which is 0.38; earnings before and taxes to total assets as X3 which is 0.06; and the total equity to total debt ratio as X4 which is 4.01 so that the z-score is 9.72. In 2021 the score of Company experienced a slight decrease of 9.55. This value is obtained from the calculation of the indicators in the altman z-score calculation which consists of working capital to total assets as X1 which is 0.61; retained earnings to total assets as X2 which is 0.39; earnings before and taxes to total assets as X3 which is 0.03; and the total equity to total debt ratio as X4 which is 3.88 so that the z-score is 9.55. Despite experiencing a decrease in the z-score value in 2021, the company remains in a healthy condition or is not bankrupt because its z-score value is above the average of 2.6 or $Z > 2.6$

Z-Score value at Company Period 2017-2021 tends to increase every year even though in 2021 it looks to experience a slight decline. In 2017, the resulting z-score was 7.51 where the value in 2018 experienced a significant increase to 8.09. This condition further confirms that the company's condition is still in a safe condition. This is in line with the company's profit and the movement of the company's share price in 2017 to 2018 which numbers have crept up. In 2019 and 2020, the z-score value increased significantly to 9.36 and 9.72. This result is directly proportional to the company's profit, which also increased but inversely proportional to the movement of stock prices, which decreased in 2019. This did not significantly affect the company's position which was safe from bankruptcy. In 2021, the acquisition value of the z-score has decreased compared to the previous year, which decreased to 9.55. This figure does not significantly affect the company's position where the figure still shows that the company is in a safe condition from bankruptcy because the z-score is still above 2.6

Figure 8
Highest Z-score score PT. Wismilak Inti Makmur Tbk 2017-2021 period



Source: processed data

From the results of these calculations, a conclusion can be drawn for the acquisition of the z-score value. Where is the highest Z-Score at PT. Wismilak Inti Makmur Tbk for the 2017-2021 period, namely in 2019 it was 9.72 while the lowest z-score was at PT. Wismilak Inti Makmur Tbk for the 2017-2021 period, namely in 2017 it was 7.51. To be able to find out the highest z-score value for the 2017-2021 period, can be seen from the graph above

CONCLUSION

Based on the results of the calculation of the financial performance of Company Period 2017-2021, it can be concluded that the calculation of Net Working Capital to Total Assets (X_1) from 2017-2021 has increased every year, the calculation of Retained Earning to Total Assets (X_2) from 2017-2021 has increased every year, the calculation of EBIT to Total Assets (X_3) from 2017-2021 is not stable every year and tends to decrease, and the calculation of Total Equity to Total Debt Ratio (X_4) from 2017-2020 has increased but in 2021 it experienced a slight increase. a little drop

Based on the results of the analysis and discussion of the modified Altman z-score, it can be concluded that the financial condition of Company period 2017-2021 is in good condition or healthy because its z-score from 2017-2021 is above 2.6 or Z value > 2.6. Although in 2019 the z-score value decreased slightly, but there is no risk of bankruptcy because the z-score value is still above 2.6 or Z value > 2.6

The results of this research are different from several other research results even though Altman z-score is used because the model in this analysis tool has several forms and the model in this analysis tool can only be applied to certain types of companies. research using the revised Altman z-score model with research objects as manufacturing companies produced research results on companies prone to bankruptcy²⁴; research using the original Altman z-score model with research objects of several types of companies produced research results that several of these companies experienced bankruptcy²⁵.

²⁴ Hikmah and Afridola, "Metode Altman Z-Score Untuk Memprediksi Kebangkrutan Perusahaan Manufaktur Di Kota Batam."

²⁵ A. Salatin, "Penerapan Model Altman (Z-Score) Untuk Memprediksi Kebangkrutan Pada Industri Tekstil Dan Produk Tekstil Yang Terdaftar Di BEI Periode 2009-2011," *Jurnal Administrasi Bisnis S1 Universitas Brawijaya* 6, no. 2 (2013): 77649.

As for some suggestions that can be given include: 1. Company can maintain financial performance every year in order to remain in good health; 2. In 2021 the z-score of Company experienced a slight decline, this was due to a decrease in EBIT to Total Assets (X_3). The writer's suggestion is that Company continues to optimize the company's assets for sales so that revenue can be maximized. Although still in good health, the company must still pay attention so that the z-score value does not decrease

The limitation of this research is that it only uses Company as the object, while there are several cigarette companies on the Stock Exchange, so this study does not reflect the overall financial performance of tobacco companies in Indonesia. This makes it perfect material for further researchers to be able to thoroughly examine the financial performance of other tobacco companies, either using the Altman z-score method or using other methods such as the Springate method, Zmijewski method, Bankometer, Grover and RGEC analysis where all of these methods can describe the potential for bankruptcy of a company ²⁶.

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²⁶ Helsy Amelia Saputri and Aстри Krisnawati, "Comparative Analysis of Modified Altman Z-Score , Springate , Zmijewski , Bankometer , Grover , and RGEC Models for Financial Distress Prediction (Empirical Study in Banking Companies Listed on IDX 2011-2016)," *International Journal of Multicultural and Multireligious Understanding* 7, no. 4 (2020): 260-78, <https://doi.org/http://dx.doi.org/10.18415/ijmmu.v7i4.1586>.

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