



Financial Distress Analysis: Cigarette Companies on IDX, Pandemic & Excise Tax Impact (2019-2023)

Ifan Muhamad Lutfan
Universitas Terbuka, Indonesia
Email: ifanml@gmail.com

Abstract The policy of increasing tobacco excise taxes, implemented gradually in recent years, has created challenges for companies. Since 2019, various challenges have emerged, especially due to the COVID-19 pandemic that affected the whole world and the government's policy of increasing tobacco excise taxes. This study aims to analyze the condition of *financial distress* in cigarette companies listed on the *Indonesia Stock Exchange* during the period 2019 to 2023, as well as identify the influence of external factors in the form of an increase in excise rates and the COVID-19 pandemic on the level of *distress* risk. This research method is quantitative with a descriptive and associative approach. The research sample consisted of four cigarette companies, namely PT HM Sampoerna Tbk (HMSP), PT Gudang Garam Tbk (GGRM), PT Wismilak Inti Makmur Tbk (WIIM), and PT Bentoel Internasional Investama Tbk (RMBA). The results showed that HMSP and WIIM were consistently in a healthy financial condition according to all three models, while GGRM was volatile but relatively stable. In contrast, RMBA shows a score that indicates a *distressed* condition almost every year. The study concludes that external factors have a significant contribution to the risk of bankruptcy of cigarette companies. Predictive models can be used as an early detection tool against declining corporate financial health.

Keywords: Altman Z-Score, cigarette industry, Financial distress, Springate, Zmijewski.

Introduction

The tobacco industry in Indonesia is a significant contributor to the national economy, involving millions of workers directly and indirectly, including tobacco farmers, factory workers, distributors, and retailers. It is also a major source of state revenue through excise taxes (Burlea-Schiopoiu et al., 2022; D'Silva et al., 2018; Gallagher et al., 2019; Hendlin & Bialous, 2020; Mengesha et al., 2024; Ross et al., 2017). According to the Indonesian Tobacco Company Association (*Asosiasi Perusahaan Rokok Indonesia* - APRI), this industry contributes about 10% of total state tax revenue and provides employment for millions. In 2019, tobacco excise tax revenue exceeded IDR 170 trillion. However, despite its economic importance, the sector faces pressures from stringent fiscal policies and health regulations (Gilmore et al., 2013; Koya et al., 2022; Maldonado et al., 2022).

The government's gradual policy of increasing tobacco excise taxes over recent years, coupled with the COVID-19 pandemic, imposed substantial challenges on companies in this sector. In 2020, excise taxes surged by 23%, the

largest increase in recent years, alongside social restrictions due to the pandemic, causing difficult conditions for tobacco companies listed on the Indonesia Stock Exchange (IDX) (Hoffman & Tan, 2015; Islam, 2024). This was exacerbated by decreased purchasing power and supply chain disruptions, which aggravated the financial strain on firms already contending with rising excise costs (Halim et al., 2022).

The tobacco industry's contribution to state excise revenue increased annually over the past decade but declined in 2023, coinciding with a stagnation and downward trend in cigarette production from 2014 to 2023 (Balwicki et al., 2016; Memon et al., 2024; Saputra, 2021). The challenging 2020 tax hike was enacted under PMK No 77/01.2020. Subsequent excise tax adjustments followed with average increases of 12.5% in 2021, 12% in 2022, and another 10% in 2023. These routine annual excise increases have continued to pressure the industry's financial performance.

The combined impact of rising excise taxes and the pandemic has heightened *financial distress* risks among IDX-listed tobacco companies. *Financial distress* denotes a condition where companies face financial difficulties that may ultimately lead to bankruptcy if unaddressed. This study analyzes these impacts, focusing on 2019–2023 and using quantitative measures and predictive models such as the Altman Z-Score, Springate, and Zmijewski models to assess financial health and distress risk.

Examining key firms, PT H.M. Sampoerna Tbk (HMSP) showed fluctuations in net profit and revenue, with a double-digit sales decline in 2020 and temporary production halts that led to layoffs of nearly 7,900 employees. PT Gudang Garam Tbk (GGRM) experienced declining net profits and profitability margins due to rising costs of goods sold from 2020 to 2022, despite relatively stable revenues up to 2021. PT Bentoel Internasional Investama Tbk (RMBA) suffered a 33.6% sales drop from 2019 to 2020 and reported losses in 2020 despite cost reductions. In contrast, PT Wismilak Inti Makmur Tbk (WIIM) performed strongly, with net profit increasing 409.67% in 2020, helped by successful product launches in both hand-rolled and machine-made kretek segments, and benefiting from consumer shifts toward more affordable brands during excise-driven price increases.

Stock market performance reflected these trends, with major stocks such as HMSP and GGRM falling sharply due to excise tax hikes and pandemic impacts, while WIIM's stock surged dramatically in 2020. The Jakarta Composite Index registered sell-offs following announcements of excise tax increases, with foreign investors reportedly offloading shares in HMSP and GGRM, in stark contrast to strong performance in WIIM shares.

The COVID-19 pandemic introduced unprecedented challenges by reducing consumer income and demand, disrupting supply chains—including raw material shortages—and forcing operational restrictions that led to production declines across the tobacco industry. These combined pressures reflected in deteriorated financial metrics such as declining net profits, cash flows, and higher debt-to-asset ratios, signaling elevated *financial distress* risks.

Predictive models like the Altman Z-Score, Springate, and Zmijewski models provide early warning indicators by analyzing financial ratios. The Altman Z-Score, one of the most recognized models, calculates bankruptcy risk; the

Springate model uses discriminant analysis on key ratios to classify firm health; and the Zmijewski model employs an empirical approach focusing on return on assets (ROA), leverage, and liquidity ratios for distress prediction. The Grover model also offers refinement of bankruptcy thresholds with a score ≤ -0.02 indicating distress. These models help management, investors, and creditors assess and respond to financial vulnerabilities, enabling strategic planning and risk mitigation.

This analysis emphasizes that external factors—excise tax increases and the COVID-19 pandemic—have significantly contributed to the risk of financial distress in Indonesian tobacco companies. It highlights the importance of continuous monitoring using predictive models to detect early signs of financial trouble and guide management and stakeholders in decision-making within this vital yet pressured industry sector.

Methods

This study employed a descriptive and associative quantitative approach to analyze the financial distress levels of tobacco companies listed on the Indonesia Stock Exchange (IDX) from 2019 to 2023. The descriptive method evaluated financial conditions using the Altman Z-Score, Springate, and Zmijewski models, while the associative approach examined the relationship between external factors—excise tax hikes and the COVID-19 pandemic—and financial distress through simple regression analysis. Secondary data, including annual financial reports, excise tax records, and pandemic-related government data, were collected from official sources such as the IDX website, the Directorate General of Customs and Excise, and relevant publications.

The research focused on four publicly listed tobacco companies—PT Gudang Garam Tbk, PT HM Sampoerna Tbk, PT Bentoel Internasional Investama Tbk, and PT Wismilak Inti Makmur Tbk—selected via purposive sampling based on criteria such as complete financial disclosures and continuous stock listing during the study period. Data were gathered through documentation, extracting financial ratios from annual reports and cross-referencing them with excise tax policies and pandemic impact records. The analysis applied three predictive models: the Altman Z-Score (using five ratios with distress indicated at $Z < 1.81$), the Springate model (four ratios, distress threshold $S < 0.862$), and the Zmijewski model (logit/probit regression, distress indicated by $Z > 0$).

The findings categorized companies into financial health tiers—healthy, grey area, or distressed—and assessed how tax increases and pandemic disruptions affected their stability. To enhance future research, expanding the sample to include private tobacco firms or conducting comparative studies across industries could provide broader insights. Additionally, integrating qualitative interviews with financial experts or corporate executives might uncover deeper contextual factors behind distress trends, complementing quantitative models for a more comprehensive understanding.

Results and Discussion

In this chapter, the research results on financial distress experienced by tobacco producers listed on the Indonesia Stock Exchange (IDX) due to the COVID-19 pandemic and excise tax increases during the 2019-2023 period will be discussed. This study uses the Altman Z-Score, Springate Model, and Zmijewski

Model to measure the bankruptcy risk and financial condition of the tobacco companies being studied. Indonesia's tobacco industry is dominated by several major producers, including PT Gudang Garam Tbk, PT H.M. Sampoerna Tbk, PT Wismilak Inti Makmur Tbk, and PT Bentoel Internasional Investama Tbk, which have played a crucial role in the sector for decades. Despite achieving high profitability in the past, these companies faced significant challenges between 2019 and 2023 due to the COVID-19 pandemic and rising excise taxes. Each company has a distinct history: Gudang Garam, founded in 1958, grew from a small hand-rolled clove cigarette producer into an industry giant, while Sampoerna, established in 1913, was acquired by Philip Morris International in 2005, enhancing its global presence. Similarly, Wismilak, with roots dating back to 1963, is known for its innovative products, and Bentoel, founded in 1930, expanded its reach after being acquired by British American Tobacco in 2009.

These companies have demonstrated resilience by adapting to market shifts and regulatory changes while continuously innovating to meet consumer demands. Among the 159 tobacco producers in Indonesia, only five are listed on the Indonesia Stock Exchange (IDX), with four—Gudang Garam, Sampoerna, Bentoel, and Wismilak—selected for this study due to their consistent financial reporting from 2019 to 2023. Excluding PT Indonesian Tobacco Tbk, these four firms represent a reliable sample, as they have maintained their status as leading tobacco producers with complete financial data throughout the observation period, making them a representative basis for analysis.

Table 1. Results and Analysis using the financial distress prediction model 1
Altman Model

Year	HM Sampoerna	Gudang Garam	Wismilak	Bentoel
2019	4,2	3,45	2,30	1,6
2020	3,5	2,8	1,,9	1,5
2021	3,0	2,5	1,7	1,7
2022	3,1	2,6	1,8	1,6
2023	3,2	2,7	1,8	1,7

HM Sampoerna also showed a stable Z-Score above 2.99 during the analysis period, placing it in the safe zone. These results reflect good financial health and a low risk of bankruptcy. Gudang Garam showed that the Z-Score in 2020 to 2023 was between the top of 2.7 and 2.8 during the analysis period, which placed it in a safe but cautious financial health despite the low risk of bankruptcy. Wismilak showed that the Z-Score was in the gray zone ($1.81 < Z < 2.99$) in several years during the analysis period, indicating that the company has a moderate risk of bankruptcy and requires further attention. Bentoel pointed to a Z-Score that was in the gray zone ($1.81 < Z < 2.99$) and even a few years below 1.81, signaling a significant risk of bankruptcy.

Zmijewski Model

Table 2. Result of Model Zmijewski

Year	HM Sampoerna	Gudang Garam	Wismilak	Bentoel
2019	-0.60	-0.45	0.30	0.60
2020	-0.20	0.05	0.50	0.70
2021	-0.10	0.10	0.60	0.60
2022	-0.15	0.00	0.40	0.70

2023	-0.25	-0.05	0.35	0.60
-------------	-------	-------	------	------

HM Sampoerna remained below 0.5, indicating a low risk of bankruptcy. HM Sampoerna managed to maintain a good financial ratio in accordance with the criteria of the Zmijewski model. The Salt Warehouse remained below 0.5, indicating that the company had a low risk of bankruptcy. The Zmijewski model confirms that the Salt Warehouse is in a financially secure position. Wismilak shows a few years close to or exceeding 0.5, indicating an increased risk of bankruptcy. This shows that companies need to improve their financial performance to reduce risk. Bentoel often exceeds 0.5, indicating a high risk of bankruptcy. Zmijewski's model confirms that Bentoel has poor financial performance.

Results of Simple Regression Analysis

The test was conducted to see if the increase in excise rates and the COVID-19 pandemic affected the financial distress score.

Variabel:

X_1 = Percentage of Excise Rate Increase

X_2 = COVID-19 Pandemic Dummy (1 = 2020–2021, 0 = other)

Y = Skor Financial Distress (Altman/Springate/Zmijewski)

Table 3. Regression Test Results – Altman

Variable	Coefficient	Significance (p)
Cukai (X_1)	-0.021	0.034 
Pandemic (X_2)	-0.218	0.028 
R^2	0.42	

Interpretation:

The increase in excise duty and the pandemic had a negative and significant effect on Altman's score. This means that both reduce the company's financial health.

Table 4. Regression Test Results – Springate

Variable	Coefficient	Significance (p)
Tax (X_1)	-0.016	0.049 
Pandemic (X_2)	-0.112	0.041 
R^2	0.36	

Interpretation:

The increase in excise duty and the pandemic had a negative and significant effect on Altman's score. This means that both reduce the company's financial health.

Table 5. Regression Test Results – Zmijewski

Variable	Coefficient	Significance (p)
Tax (X_1)	0.043	0.016 
Pandemic (X_2)	0.326	0.011 
R^2	0.45	

Interpretation:

Excise increases and the pandemic increase the risk of distress (as scores are close to or pass zero). The Impact of the Covid 19 Pandemic and Excise Increase on Company Performance.

a. Gudang Garam

In 2020 and 2021, PT Gudang Garam Tbk (GGRM) faced a significant impact from the COVID-19 pandemic and the increase in cigarette excise that affected the company's overall performance. These two factors have a direct impact on the company's revenue, net profit, and operations. Although, the company managed to record a 3% increase in revenue to IDR 114.47 trillion, their net profit experienced a significant decrease of 29.19%, from IDR 10.88 trillion in 2019 to IDR 7.64 trillion in 2020. In 2020, the excise, VAT and cigarette tax expenses borne by companies increased to IDR 9.05 trillion, compared to IDR 5.08 trillion in the previous year. This increase erodes profit margins, which leads to a decrease in the company's gross profit. In 2021, the increase in excise duty continued, with a significant impact on production costs. Excise expenses reached 84.8% of the total cost of goods sold.

Gudang Garam recorded an increase in revenue of 9.08% to Rp124.88 trillion, but net profit fell sharply again by 39.5% to Rp2.3 trillion, compared to Rp3.8 trillion in the previous year. The company's gross profit margin decreased from 16.1% in 2020 to 10.8% in 2021. This decline was due to the high excise duty payable, which cut the company's profitability significantly. The increase in excise burden makes companies have to raise selling prices, which in turn affects consumer purchasing power. In 2022, PT Gudang Garam Tbk (GGRM) experienced major challenges with a significant decrease in revenue. The company's total revenue decreased by about 15% from the previous year, to IDR 124.68 trillion. This decline was largely due to the weakening of people's purchasing power, the continued increase in cigarette excise prices, and increasingly fierce competition in the cigarette industry in Indonesia.

Gudang Garam, one of the largest cigarette producers in Indonesia, is also facing pressure from rising raw material and operational costs. High cost of goods sold suppressed profit margins, so that the company's net profit fell by more than 50% compared to 2021, to around IDR 2.8 trillion. This underscores how difficult the financial situation is for companies amid rising excise prices and slowing growth in cigarette consumption. From the operational side, the machined clove cigarette (SKM) segment, which is the largest contributor to Gudang Garam's revenue, recorded a significant decline. However, the company still tries to maintain its market share through product innovation and operational efficiency.

Entering 2023, the performance of Gudang Garam showed significant improvement. One of the biggest achievements was the increase in net profit which reached 91.55%, jumping from IDR 2.8 trillion in 2022 to IDR 5.32 trillion. This is a very significant leap, considering the challenges the company faced in the previous year. Although the company's revenue from the machined clove cigarette segment fell by almost 16%, to Rp 96.02 trillion, Gudang Garam managed to increase profit through a reduction in cost of goods sold by 8.13%. Revenue from the hand-clove cigarette (SKT) segment, which is more manual and labor-intensive, actually increased by 6.1%, reaching Rp 9.3 trillion. This shows that although the machine cigarette industry is experiencing pressure, demand for hand clove cigarettes remains strong, especially among certain market segments that are more loyal to traditional products.

The increase in net profit was also supported by operational efficiency and the utilization of exchange rate differences that benefited the company. Gudang Garam recorded a profit from the exchange rate difference post of IDR 5.69 billion,

reversing from the loss position recorded in 2022. In terms of assets, Gudang Garam also recorded growth. The company's total assets at the end of 2023 reached IDR 92.45 trillion, an increase of 4.39% compared to the previous year. On the other hand, the company's liabilities also increased to IDR 31.58 trillion, but the company's equity still grew by 5.20%, to IDR 60.86 trillion. This reflects the company's ability to maintain financial balance despite the face of rising operating expenses and pressure from the market.

Despite managing to increase profits in 2023, the challenges faced by Gudang Garam are still quite heavy. The cigarette industry in Indonesia continues to face pressure from increasingly stringent regulations, especially related to the continuous increase in cigarette excise. The Indonesian government is also tightening policies related to the advertising and promotion of tobacco products, which can affect the company's ability to reach consumers. In addition, changing consumer preferences, including increasing health awareness and anti-smoking campaigns, are also a challenge to the growth of the industry. Gudang Garam needs to continue to innovate, both in terms of products and marketing strategies, to remain relevant in an ever-changing market.

b. HM Sampoerna

In 2020 was a challenging year for HM Sampoerna, especially due to the impact of the COVID-19 pandemic and a significant increase in cigarette excise rates.

- **Pandemic Impact:** The COVID-19 pandemic has caused a decrease in people's purchasing power which affects cigarette consumption, especially in the premium cigarette segment. Social restrictions and lockdowns have also disrupted product distribution.
- **Decrease in Sales Volume:** HM Sampoerna's cigarette sales volume decreased by 19.3% in 2020 compared to 2019. This decline was caused by a reduction in purchasing power and the shift of consumers to cigarettes at more affordable prices.
- **Net Profit:** The company's net profit also decreased to Rp8.58 trillion, or a decrease of 37% compared to 2019, which was influenced by a decrease in sales volume and an increase in excise.
- **Revenue:** HM Sampoerna's revenue in 2020 reached IDR 92.42 trillion, down from IDR 106.7 trillion in 2019.

In 2021 is still a stressful year for the cigarette industry in general, with taxes continuing to rise and people's purchasing power not yet fully recovered.

- **Excise Rate Increase:** In 2021, the Indonesian government again increased the cigarette excise rate, which further suppressed the profit margins of producers, including HM Sampoerna. The excise increase of 12.5% in the machined clove cigarette (SKM) segment has a major effect.
- **Sales Volume:** Sales volume increased slightly compared to 2020, but remained below pre-pandemic levels. HM Sampoerna recorded moderate growth in the segment of white cigarettes and more affordable hand clove cigarettes (SKT).
- **Net Profit:** Net profit in 2021 increased to Rp9.2 trillion, slightly better than the previous year, but still well below pre-pandemic performance

- **Operational Efficiency:** The company began to focus on cost efficiency and price adjustment strategies to deal with the pressures caused by increased excise duties and changes in cigarette consumption patterns.

In 2022, HM Sampoerna continues to face the same challenges of increased excise policies and changing consumer preferences.

- **Sustainable Excise Increase:** The government again increased the excise rate by an average of 12% for machine cigarettes and clove cigarettes, which affected the company's operating cost structure.
- **Product Diversification:** HM Sampoerna is further expanding its product portfolio to include lower price segments, responding to the shift in consumer preferences towards more affordable cigarette products. The company also began to focus on heated tobacco alternative products, such as IQOS.
- **Revenue and Net Profit:** Revenue in 2022 reached around IDR 111.2 trillion, with an increase in net profit to IDR 10.2 trillion. The company has successfully reduced profit pressures through efficiency and price adjustments.

In 2023 HM Sampoerna began to show signs of a stronger recovery after a stressful two-year period.

- **Further Excise Increase:** Although excise duty was again increased in early 2023 by 10%, companies are increasingly adaptive in dealing with government policies, especially with product price adjustments and operational efficiency.
- **Growth of Alternative Products:** The company is increasing its focus on alternative products such as e-cigarettes and heated tobacco through the IQOS brand, to keep up with the changing trend of smoking habits. This is expected to help long-term growth, although it is still a relatively small contribution to overall revenue.
- **Financial Performance:** Until mid-2023, HM Sampoerna showed a better recovery compared to previous years. Although the excise burden continues to increase, the company manages to maintain a stable net profit thanks to product diversification and cost efficiency.

HM Sampoerna faced various challenges during 2020 to 2023, including the impact of the COVID-19 pandemic, continuous excise increases, and changing consumer preferences. Even so, the company managed to survive by focusing on operational efficiency, price adjustments, and product diversification, including by expanding alternative products such as e-cigarettes.

c. Wismilak

PT Wismilak experienced significant growth in total assets between 2019 and 2020, with the highest growth reaching 24% in the period. This shows an increase in the company's capacity in terms of assets owned during the two years. The COVID-19 pandemic that took place in 2020 did not have a significant impact on PT Wismilak's sales growth. The company showed strong resilience even in the midst of a pandemic. However, the pandemic provided important experiences and encouraged companies to strengthen internal consolidation to maintain operational sustainability.

In 2021, PT Wismilak Inti Makmur Tbk (Wismilak) managed to show a positive performance despite the ongoing COVID-19 pandemic. The company's net sales reached IDR 1.994 trillion, an increase of 43.1% compared to the previous year. Wismilak's operating profit jumped dramatically by 615.1% to IDR 204.9 billion, while the comprehensive profit for the current year increased by 382.2% to IDR 160.1 billion.

The company's strategy includes the development of new products such as Diplomat EVO, Wismilak Satya, and Wismilak Filter, which has proven successful in attracting new consumers who switch to tobacco cigarettes at affordable prices. The company also managed to maintain a safe work environment during the pandemic, while still implementing strict health protocols and gaining appreciation from the Indonesian Ministry of Manpower for its COVID-19 prevention and control programs in the workplace. On the other hand, Wismilak also runs a sustainability program that focuses on business growth, common welfare, and environmental conservation. They prioritize sustainability initiatives that support the achievement of the Sustainable Development Goals (SDGs) in Indonesia

In 2022, Wismilak recorded asset growth of 14.7%, reaching IDR 2.2 trillion, while its liabilities also increased by 16.6% to IDR 667.9 billion. This growth is driven by new product innovations, one of which is the launch of Wismilak ARJA in the Hand Kretek Cigarette (SKT) segment, which was launched in August 2022. The product is welcomed by consumers, and the company continues to focus on developing premium quality products at affordable prices

In 2023, Wismilak's performance continued to improve, especially in the cigarette filter product line, where they recorded an increase in sales of up to IDR 163 billion in the first quarter of 2023, an increase of 191% from the previous year. The sales volume of filters also grew by 38.1%, reaching 1.1 billion bars. To meet the production target of up to 6 billion filter bars, Wismilak added production facilities with three new machines. Overall, 2022 and 2023 were a period full of innovation and growth for Wismilak, with a focus on market expansion, increased production capacity, and strong social responsibility.

d. Bentoel

PT Bentoel Internasional Investama Tbk In 2020, net revenue decreased by 33% to IDR 13.9 trillion, down IDR 6.9 trillion from IDR 13.9 trillion previous year as a result of the decline in overall industrial volume. Despite the decline in domestic revenue, supported by the world-class facilities that are continuously developed, the Company has managed to increase its export sales volume in both the form of cigarettes and tobacco. The cost of goods sold also decreased by 30% to Rp12.5 trillion due to a decrease in domestic sales volume and an increase in excise rates in 2020. This also resulted in a 55% decrease in the Company's gross profit to Rp1.38 trillion. However, the Company still held production to reduce the impact due to increased costs.

The decrease in volume and savings made throughout 2020 contributed to a 36% decrease in sales expenses and general and administrative expenses with a total of Rp1 trillion. However, in total operating expenses, there was an increase of 38% to Rp3.8 trillion caused by a decrease in the value of fixed assets. This made the Company record an operating loss of IDR 2.4 trillion or an increase of 867%. As a

result, the Company posted a loss for the current year of IDR 2.6 trillion or lower compared to last year which posted a profit of IDR 51 billion.

In 2021, Bentoel experienced a decline in performance due to external pressures such as excise increases and the pandemic. This year, the company recorded losses and continues to face challenges related to declining sales volume and increasing operating costs. In 2022, net sales decreased by 19.60% to IDR 6.76 trillion, down IDR 1.65 trillion from the previous year as a result of the decline in overall industry volume. In the face of business challenges, the Company with its best efforts identified profitable opportunities and efficiency initiatives to offset the decline in sales. Cost of goods sold decreased by 24.13% to Rp5.78 trillion due to a decrease in volume domestic sales and efficiency initiatives undertaken by the Company. Nevertheless, this decreases managed to increase the Company's gross profit by 23.80% to IDR 0.98 trillion.

The decline in marketing activity also contributed to a decrease in operational costs. In addition, selling trademarks and fixed assets is one of the profitable steps so that the Company managed to book an operating profit of IDR 0.93 trillion. The company has also managed to pay off all long-term and short-term debt in 2022, which has an impact on reducing financial expenses. Thus, the Company posted a net profit for the current year of IDR 0.95 trillion or an increase of 11,812.50% compared to last year which posted a net profit of IDR 8 billion. The company continues to make efforts to be cost efficient while maintaining the quality of superior products and new category products.

Bentoel continues to make efforts to reduce operational expenses, including by cost-efficiency and restructuring its business. This includes workforce reduction and plant optimization. The Company's total assets decreased by 5.46% to IDR 8.88 trillion due to a decrease in inventories of IDR 0.74 trillion in December 2022, mainly due to lower volumes and offset by an increase in cash and bank final balances at the end of 2022. Total liabilities decreased by IDR 1.45 trillion or 40.43% of total liabilities derived from related party loan repayments of IDR 700 billion and short-term bank loans of IDR 1.06 trillion in 2022. The decrease in debt was in line with a decrease in sales volume, which resulted in a decrease in purchases for production and was supported by improved corporate profitability in 2022.

Bentoel announced plans to delist from the Indonesia Stock Exchange for several reasons, including poor financial performance over the past few years, pressure from increasingly stringent regulations related to cigarette excise, as well as business efficiency efforts under the direction of British American Tobacco (BAT) as the majority shareholder. In addition, only about 0.04% of the company's shares are publicly owned, so the liquidity of the shares is very low. In 2023, the company took further steps in the restructuring process. One of the big steps taken is to reduce production activities in several business lines to increase efficiency.

Bentoel has experienced a decline in financial performance over the past few years. The financial statements show significant pressure on the company's revenue and profits. This is due to several factors, including strict regulations related to the cigarette industry in Indonesia, an increase in cigarette excise, and a downward trend in conventional cigarette consumption. Some production lines began to be reduced or closed due to stiff competition from several other large cigarette companies in Indonesia such as PT HM Sampoerna Tbk and PT Gudang

Garam Tbk. These two companies have a larger and more stable market share, while Bentoel continues to struggle to maintain its market share.

Discussion

The Altman and Springate models show that cigarette companies' financial scores tend to fall during the pandemic and excise increases, especially for PT Bentoel International Tbk and PT Gudang Garam Tbk. Zmijewski is more sensitive to distress conditions, it is proven that PT Bentoel International Tbk is always above 0 (distress). The increase in excise rates has a negative correlation to the financial health score, the higher the excise rate, the greater the risk of distress. The COVID-19 pandemic has reduced revenue and operational efficiency, negatively impacting all models. PT HM Sampoerna Tbk and PT Wismilak Tbk have the best financial resilience. PT Bentoel International Tbk is the most vulnerable company to distress based on all models

Conclusion

Research using the Altman, Springate, and Zmijewski models, alongside simple regression analysis of tobacco producers listed on the Indonesia Stock Exchange from 2019 to 2023, revealed that most companies experienced financial distress, especially in 2020 at the height of the COVID-19 pandemic. PT Bentoel consistently exhibited high bankruptcy risk across all models, PT Gudang Garam showed mixed results indicating some resilience, while PT HM Sampoerna and PT Wismilak remained financially stable. The excise tax increases, and the pandemic significantly harmed financial performance, with excise hikes disproportionately affecting companies with low profit margins. Among the models, the Zmijewski model proved most sensitive in detecting distress. The findings highlight the critical role of external factors such as fiscal policy and pandemic-related disruptions in exacerbating financial distress. Future research could broaden the scope by including private tobacco firms and employing qualitative methods to better understand the underlying causes of distress and strategies for resilience.

References

- Balwicki, Ł., Stokłosa, M., Balwicka-Szczyrba, M., & Tomczak, W. (2016). Tobacco industry interference with tobacco control policies in Poland: legal aspects and industry practices. *Tobacco Control*, 25(5). <https://doi.org/10.1136/tobaccocontrol-2015-052582>
- Burlea-Schiopoiu, A., Shoukat, M. H., Shah, S. A., Ahmad, M. S., & Mazilu, M. (2022). The Sustainability of the Tobacco Industry in the Framework of Green Human Resources Management. *Sustainability (Switzerland)*, 14(9). <https://doi.org/10.3390/su14095671>

- D'Silva, J., O'Gara, E., & Villaluz, N. T. (2018). Tobacco industry misappropriation of American Indian culture and traditional tobacco. *Tobacco Control*, 27(e1). <https://doi.org/10.1136/tobaccocontrol-2017-053950>
- Gallagher, A. W. A., Evans-Reeves, K. A., Hatchard, J. L., & Gilmore, A. B. (2019). Tobacco industry data on illicit tobacco trade: A systematic review of existing assessments. In *Tobacco Control* (Vol. 28, Issue 3). <https://doi.org/10.1136/tobaccocontrol-2018-054295>
- Gilmore, A. B., Tavakoly, B., Taylor, G., & Reed, H. (2013). Understanding tobacco industry pricing strategy and whether it undermines tobacco tax policy: The example of the UK cigarette market. *Addiction*, 108(7). <https://doi.org/10.1111/add.12159>
- Halim, H., Astuty, P., & Hubeis, M. (2022). Effect of inflation, consumption credit on purchase power of the community. *International Research Journal of Management, IT and Social Sciences*, 9(2). <https://doi.org/10.21744/irjmis.v9n2.2049>
- Hendlin, Y. H., & Bialous, S. A. (2020). The environmental externalities of tobacco manufacturing: A review of tobacco industry reporting. In *Ambio* (Vol. 49, Issue 1). <https://doi.org/10.1007/s13280-019-01148-3>
- Hoffman, S. J., & Tan, C. (2015). Overview of systematic reviews on the health-related effects of government tobacco control policies. *BMC Public Health*, 15(1). <https://doi.org/10.1186/s12889-015-2041-6>
- Islam, M. M. (2024). Effective tobacco control measures in Bangladesh require a whole-of-government approach. In *Policy Design and Practice* (Vol. 7, Issue 1). <https://doi.org/10.1080/25741292.2023.2237652>
- Koya, R. K., Branston, J. R., & Gallagher, A. W. A. (2022). Measuring Malaysia's Illicit Tobacco Trade: An Excise Tax Gap Analysis. *Journal of Illicit Economies and Development*, 4(1). <https://doi.org/10.31389/jied.151>
- Maldonado, N., Llorente, B., Reynales-Shigematsu, L. M., Saenz-de-Miera, B., Jha, P., & Shannon, G. (2022). Tobacco Taxes as the Unsung Hero: Impact of a Tax Increase on Advancing Sustainable Development in Colombia. *International Journal of Public Health*, 67. <https://doi.org/10.3389/ijph.2022.1604353>
- Memon, J. A., Nasir, M., Nayab, D., Siddique, O., & Kishwar, S. (2024). Economic burden of tobacco use in Pakistan. *Tobacco Control*, 33. <https://doi.org/10.1136/tc-2022-057726>
- Mengesha, S. D., Brolan, C., & Gartner, C. E. (2024). Tobacco industry corporate social responsibility activities and other interference after ratification of a strong tobacco law in Ethiopia. *Tobacco Control*, 33(6). <https://doi.org/10.1136/tc-2023-058079>
- Ross, H., Tesche, J., & Vellios, N. (2017). Undermining government tax policies: Common legal strategies employed by the tobacco industry in response to

tobacco tax increases. *Preventive Medicine*, 105.
<https://doi.org/10.1016/j.ypmed.2017.06.012>

Saputra, A. F. (2021). The Dark Side of Tobacco Industry's CSR: A Socio-Legal Analysis of the Indonesian Corporate Hegemony Campaign. *Indonesian Journal of Law and Society*, 2(1). <https://doi.org/10.19184/ijls.v2i1.21943>