

THE IMPACT OF BUMN HOLDINGS ON THE PERFORMANCE OF SUBSIDIARIES IN THE MINING AND OIL AND GAS CLUSTER

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Abstract-As a form of state-owned enterprises (BUMN) restructuring program, the government established several BUMN holdings. The ultimate goal of forming a holding company is that the company can have a strong position in the competition among its competitors. One of BUMN's contributions to the country is reflected in dividend payments. Dividends are one of the PNBP. This research analyzes the differences in PNBP from dividend payments before and after the policy of implementing BUMN holding in the mining and oil and gas BUMN cluster, case studies at PT Aneka Tambang (Antam) and PT Perusahaan Gas Negara (PGN). The analysis was carried out using profitability, solvency, liquidity and company operational costs (BOPO) ratios. This research uses the average difference test method for two independent samples. Based on tests on PT Antam's financial variables, it was found that holdingization has not had a significant impact on net profit margin (NPM), Debt to Equity Ratio (DER), dividend payout ratio (DPR) and BOPO. Another result is that the average current ratio (CR) before holding is lower compared to after holding. Based on tests on PT PGN's financial variables, it was found that holdingization has not had a significant impact on DER, DPR and BOPO. Meanwhile, testing the average CR shows that the average CR before holding is lower than after holding. Based on interviews with the management of PT Antam and PT PGN, they stated that the formation of the holding company had not had a significant impact on the company's performance.

Keywords: Holding; Net Profit Margin (NPM); Debt To Equity Ratio (DER); Dividend Payout Ratio (DPR); Current Ratio (CR); Liquidity And Company Operational Costs (BOPO) Ratios

1. INTRODUCTION

1.1 Research Background

The public often scrutinizes the performance of BUMN, which is considered to have contributed less than optimally to the national economy. When there are meetings between the executive and legislative bodies, questions and critical criticisms are often raised regarding BUMN performance. This occurs during meetings discussing the RAPBN, especially discussing the topic of dividend payments as PNBP and during meetings discussing the work plans of the Ministry of BUMN and the Ministry of Finance.

Conditions in many countries show that state-owned enterprises have relatively lower performance when compared to private companies. This condition occurs because of differences in objectives, where private companies are more profit-oriented while state-owned enterprises still carry a public interest mission (Kim, 2018). State-owned enterprises also tend to be less productive than private companies. Political parties tend to encourage state-owned enterprises to employ too many employees, where most of these employees are hired because they have a relationship with a particular political party, not because of their competence (Krueger, 2018).

Efforts to improve the performance of BUMN continue to be carried out by the Ministry of BUMN through 4 program initiatives, namely: 1) transformation of the health and rescue of strategic BUMN; 2) transformation of the BUMN portfolio structure, through the formation of clusters and sharpening of each cluster with the formation of a BUMN holding; 3) transformation of comprehensive governance and risk management both at the ministerial level and at the BUMN level and improving the quality of BUMN human resources to be more inclusive; and 4) creation of breakthroughs in new business models and innovations including the formation of a holding for BUMN for Oil and Gas and BUMN for Mining.

As a form of contribution to the BUMN restructuring program, the government has established several BUMN holdings. The BUMN Fertilizer Industry Holding and the BUMN Cement Industry Holding are holdings that were established in the early stages. In addition, the BUMN Oil and Gas Cluster and Mining Cluster holdings have also been established several years ago.

The formation of a holding will increase profitability according to a number of studies. After integration in terms of quick ratio, interest coverage ratio, current ratio, and return on capital employee, the company's financial performance will improve (Leepsa & Mishra, 2012). Companies that merged had a better impact on accounting and company performance when compared to joint ventures or alliances (M.dress, 2004). Mergers applied to the restaurant industry resulted in a significant increase in company income (Chatfield et al., 2011).

The policy regarding the establishment of BUMN holding companies has caused policy impacts, namely public anxiety and polemics about the benefits of establishing holding companies that are still ambiguous and the costs spent on BUMN reorganization policies are high (Kim, 2018). The establishment of BUMN holding companies with subsidiaries operating in geographical locations and business segments that are far different will result in smaller profits when compared to the profits that will be generated. On the other hand, the establishment of BUMN holding companies makes monitoring by external stakeholders more difficult due to the addition of entities to the ownership structure.

Examples of two companies that are major contributors of PNBP in their respective holdings are PT PGN Tbk and PT Aneka Tambang Tbk. The two companies were established long before the holding effort was carried out. In addition, PT PGN Tbk and PT Aneka Tambang Tbk were associated in the holding at almost the same time, namely PT PGN Tbk in

2017 and PT PGN Tbk in 2018. Therefore, the two companies were made the objects of this study.

The tendency of PNBPD deposits from oil and gas holdings and mining holdings tends to decrease every year as can be seen in Figure 1. This is due to the transfer of share ownership from the Government of the Republic of Indonesia to the parent holding, resulting in dividend deposits being deposited to the parent holding compared to previously being deposited directly into the state treasury.

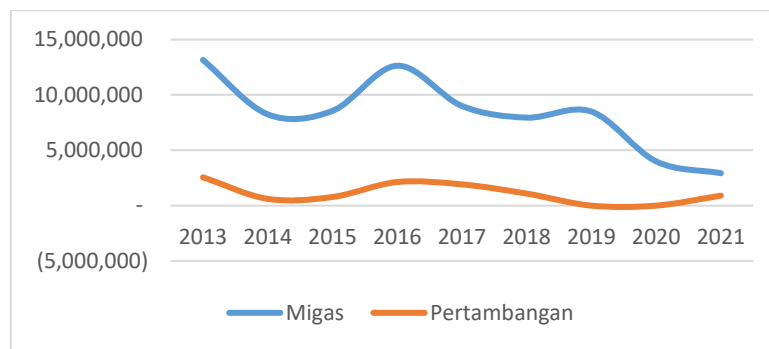


Figure 1. Trend of PNBPD Dividends for Oil and Gas and Mining Clusters

There are several studies stating that the establishment of a holding company has a positive correlation with the increase in company income. In addition, there are also several studies stating that the establishment of a holding company causes a decrease in company income. The payment of BUMN dividends tends to decrease after the establishment of a holding company according to dividend payment data. Several studies examine the effect of holdingization on its holding company, while this study will focus on examining the effect of holdingization on subsidiaries. The company's ability to make a profit is one of the attractions for investors. Solvency ratio, profitability, return on equity (ROE), return on assets (ROA), and profit margin are some of the ratios used in assessing financial performance.

This study uses the variable of company operational costs which is a novelty of this study. This is done because this study wants to find out how cost efficiency as one of the benefits arising from holdingization can be felt by the company. This condition is very interesting to conduct research because the purpose of establishing a BUMN holding company is to increase leverage, encourage efficiency, increase capacity, and develop the potential of BUMN so as to increase the opportunity for increasing income and profit of the business entity. The problem studied is how the financial performance of PT Aneka Tambang and PT Perusahaan Gas Negara was before and after the implementation of the BUMN holding policy.

1.2 Literature Review

1.2.1 BUMN Holding

Holding companies are also called parents companies or controlling companies. A holding company is a company that controls another company, while a subsidiary is a controlled company, both companies are called a group of companies (Utoyo, 2019). This holding gives the parent company the right to control the subsidiary. The parent company can choose management in the subsidiary through shares owned in the subsidiary (Utoyo, 2019). The formation of a holding company can also help achieve consolidation goals because each subsidiary has the same goals as the parent company (Nishino et al., 2010).

The issuance of Government Regulation Number 47 of 2017 concerning the Addition of State Capital Participation of the Republic of Indonesia into the Share Capital of PT Inalum (Persero)

formed a holding company for BUMN Mining. The holding company, commonly referred to as MIND ID, aims to increase business and funding capabilities, manage mineral and coal resources, conduct downstreaming and increase local content to increase added value, and make costs more efficient by carrying out the collaboration. PT. Indonesia Asahan Aluminium (Persero) acts as the parent holding company and PT. Aneka Tambang Tbk, PT. Bukit Asam Tbk, PT. Timah Tbk, PT. Vale Indonesia Tbk, and PT. Freeport act as members of the holding company.

1.2.2 Performance Measurement

The Ministry of BUMN also issued regulations on the assessment of the health level of BUMN. Based on the Decree of the Minister of State for BUMN Number Kep-100/MBU/2002 dated June 4, 2002 on the assessment of the health level of BUMN, the health level of BUMN is assessed based on several aspects, namely financial aspects, operational aspects and administrative aspects (BUMN, 2002).

a. Profitability

There are three aspects in measuring company performance based on international strategy, namely financial, operational and effectiveness. A company is considered a value-creating company if the company is able to generate profits greater than the company's cost of capital (Bansal et al., 2020). The financial aspect shows the fulfillment of the company's economic goals, including using return on investment (ROI), return on assets (ROA), return on Equity (ROE) and return on sales (ROS), profit margin, earnings per share, sales growth (Venkatraman & Ramanujam, 1986). Financial and non-financial parameters can measure the performance of BUMN. Performance assessment in the financial aspect can be done by measuring the company's ability to obtain company profits. This indicator can be assessed by profitability, solvency, rentability, and asset turnover. The higher rate of return on investment is indicated by an increase in the ROE value (Sumarsidi & Hairudinor, 2021). The higher the profitability ratio value, the greater the company's profits and the higher the level of efficiency (Fitriana, 2022).

b. Leverage

The creation of an internal capital market for companies involved in the establishment of a holding company for those who have difficulty in obtaining an external market is one of the objectives of establishing a holding company. Collaboration of companies in the form of a holding company aims to secure the internal market for business continuity (Nishino et al., 2010). Companies in the form of holding companies provide an easy way to obtain sources of funds so that BUMN has the opportunity to increase its financial resources thanks to the company's restructuring process. This increase in capital sources encourages BUMN to carry out development activities so that the community can feel the benefits (Sumarna & Solikin, 2018). Holding also increases financial performance in the form of company leverage. This increase is measured by the interest coverage ratio (Leepsa & Mishra, 2012). The formation of a holding will also make the company's income flow stable. This condition will make creditors trust them to increase their loan limits

c. Dividends

The establishment of a holding company has the ultimate goal of enabling the company to improve its position strongly in the competition among its competitors. This goal can be achieved by increasing collaboration and cooperation between the company's headquarters and its branches. This increase in competitiveness will

provide opportunities for the company to expand its market not only domestically but also abroad. The company's ability to pay dividends shows the company's value (Ayem & Nugroho, 2016). This opportunity will increase the company's income so that it will increase the value of dividend deposits to the state treasury in the form of non-tax state revenues (Sumarna & Solikin, 2018).

d. Liquidity

The establishment of a holding company has the ultimate goal of allowing the company to have a strong position in the competition among its competitors. If it already has a strong position in the market, the company will easily intervene in the market. The opportunity for this position will trigger an increase in the company's income, which will later improve the company's cash flow, resulting in increased liquidity. Liquidity is an indicator that can assess whether a company is able to meet its obligations in the short term with the current assets it has. The company's liquidity increases if a holding company is established (Leepsa & Mishra, 2012)

e. Operational Costs

The establishment of a holding company provides an opportunity for a more stable company income stream. This opportunity can provide a sense of security for creditors so that the company's loan limit can be increased. The loan can be used as additional capital, which will later increase the company's operational performance (Sumarna and Solikin, 2018). Long-term cash flow can be increased with good cooperation and collaboration efforts so that it can increase business diversification and minimize costs (Kumar & Bansal, 2008). The formation of a holding company is expected to provide facilities for parent companies and subsidiaries to improve their performance, because synergy can be more efficient (Utoyo, 2019).

2. RESEARCH METHODOLOGY

This study uses secondary data, namely the financial reports of state-owned companies start from 2008 until 2022. The financial report data is submitted to the Ministry of Finance in charge of non-tax state revenues (PNBP), namely the Directorate General of Budget (DJA). The approach used in this study is a quantitative approach. In addition, researchers also conducted interviews with resource persons in focus group discussions (FGD) to obtain some information related to the results of data processing. The resource persons interviewed were management directors at PT Aneka Tambang and PT Perusahaan Gas Negara.

2.1 Variable and Measurement

a) Profitability

Profitability ratios can describe the effectiveness of company management so that it can generate profits (Sumarna & Solikin, 2018). The final calculation of profit obtained after deducting taxes or can be said as net profit. The greater the net profit, the greater the net profit margin (Bionda & Mahdar, 2017). The effectiveness of company management can be measured by several ratios, namely gross margin, net profit margin, return on total assets, and return on equity. This study uses net profit margin with the following formula:

$$\text{Net Profit Margin} = (\text{Net Income}) / \text{Revenue}$$

b) Leverage

The solvency or leverage indicates the proportion of debt to finance a company's investments (Bramaputra & Musfitria, 2022). Investors tend to avoid the additional risk imposed on shareholders as a result of a company's use of debt (Prasetyorini, 2013). The

proportion of debt to finance investment can be measured using several ratios, namely debt to asset ratio, debt to equity ratio, long-term debt to equity, and interest coverage ratio. This study uses the debt to equity ratio to measure leverage with the following formula:

$$\text{Debt to Equity Ratio} = (\text{Total Liability}) / (\text{Total Equity})$$

c) Dividends

Dividends according to PSAK number 23 (revised 2010:103) are the distribution of profits to equity holders according to their respective proportions derived from certain capital, not regulating the recognition of dividends on equity securities announced from net income before acquisition. Dividend payout ratio (DPR) is a comparison of how much of the net profit after tax is paid as dividends to shareholders (Prasetyorini, 2013). The DPR formula is :

$$\text{DPR} = (\text{Dividend Per Share}) / (\text{Earnings Per Share})$$

Dividends per share are called Dividend Per Share (DPS). Income per share is called Earning Per Share. EPS is the value of profit distributed to shareholders for each share ownership.

d) Liquidity

Liquidity is the ability of a company to meet its short-term obligations. The company's ability to meet short-term obligations can be measured by several ratios, namely the current ratio, quick ratio, cash ratio, and operating cash flow. To measure liquidity, the author uses the current ratio with the formula:

$$\text{Current Ratio} = (\text{Current Asset}) / (\text{Current Liability})$$

e) Operational Costs

Operational costs are costs that arise because the company carries out business management activities. The company's operational costs are measured by the ratio between the company's operational costs and operating income (BOPO). This measurement is carried out to calculate performance based on operational costs.

2.2 Data Analysis

Quantitative research is used as an approach in this study. The quantitative data analysis method used in this study is the average difference test for two independent samples. This method is used to determine the average difference before the establishment of the BUMN holding and after the establishment of the BUMN holding. To analyze the impact of holding using the average difference test, the data must first be tested whether it is normally distributed. This distribution test is important to run to determine whether further analysis will use parametric or non-parametric analysis. The study is continued with parametric analysis, namely by applying the t-test for two independent samples if based on the test it is found that the data results for certain variables are normally distributed. In addition, the study is continued with non-parametric analysis, namely by applying the Mann-Whitney test if based on the test it is found that the data is not normally distributed.

3. RESULT AND DISCUSSION

PT ANTAM received an average net profit of 6.38%. The maximum net profit ever achieved by PT ANTAM was 28.64%. However, PT ANTAM once experienced a loss, namely

a minus profit of 13.68%. The minus profit that occurred caused PT ANTAM to retain all profits in that year so that it did not provide dividends to shareholders. PT ANTAM's financial performance experienced instability in the period before the holding was implemented.

The results of the analysis show that the average NPM, CR, and BOPO figures owned by PT ANTAM after the holding was implemented were smaller than before the holding was implemented. In addition, the average DER and DPR figures after the holding was implemented were greater than the average before the holding was implemented. This result does not apply to PT PGN which experienced negative profits after the holding was established. The company's losses were seen in the NPM figure component which had a negative coefficient, which was -9.18%. In addition, PT PGN in the same year did not distribute dividends to shareholders. The results of the analysis show that the average financial performance in the NPM, DER, DPR and CR ratios owned by PT PGN after the holding was implemented was smaller than before the holding was implemented. Meanwhile, the average BOPO financial performance after the holding was implemented was greater than the average before the holding was implemented.

The results of the analysis show that there are a number of financial performances that show a positive influence after the establishment of the holding, but there are also a number of financial performances that show a negative influence due to the holding based on descriptive analysis. Therefore, the analysis will be deepened by examining the influence of the establishment of the holding on each company and also looking at the comparison of the impact on the two companies before and after the holding is implemented. In addition, the assessment process will be followed by an evaluation of the advantages based on the financial performance of the two companies. In the final section, the author will see how good company performance causes an increase in dividends given to shareholders.

To analyze the impact of holding using the mean difference test, the data must first be tested whether it is normally distributed. The normal distribution test used is the Kolmogorov-Smirnov Test using $\alpha = 5\%$. Table 1 shows the results of the data distribution test.

Table 1 Data Distribution Test Results

Variable	Test Result
NPM	Data follows a normal distribution
DER	Data does not follow normal distribution
DPR	Data follows a normal distribution
CR	Data does not follow normal distribution
BOPO	Data does not follow normal distribution

The hypothesis used is that the data is normally distributed (H_0) with the alternative hypothesis that the data is not normally distributed. Table 1 shows that by using $\alpha = 5\%$, it is known that the NPM and DPR variables are normally distributed. Meanwhile, the DER, CR, and BOPO variables are not normally distributed. Therefore, to test the difference in the average of the NPM and DPR variables using the t-test for two independent samples, while the DER, CR and BOPO variables are analyzed using the Mann-Whitney Test.

This study will focus on testing to see the influence of holding and to find out the tendency of financial performance each year of the two companies. Both analyses will be applied to each research variable.

3.1 NPM Variable

The level of company profitability can be measured by the NPM ratio. This profitability explains how the company carries out effective management which can result in profits. The

company's ability to obtain net profit from each company's sales that have been reduced by tax can be measured by this NPM ratio. The higher the NPM, the more efficient the costs incurred. The amount of NPM will cause the level of net profit returns received. For investors, NPM is a consideration in assessing the condition of the company. The greater the NPM means the better the company's ability to generate net profit, so that the shares will also increase. The higher the stock price, the higher the stock return obtained. The greater the NPM value indicates that the company's performance is more productive, thus increasing investor confidence.

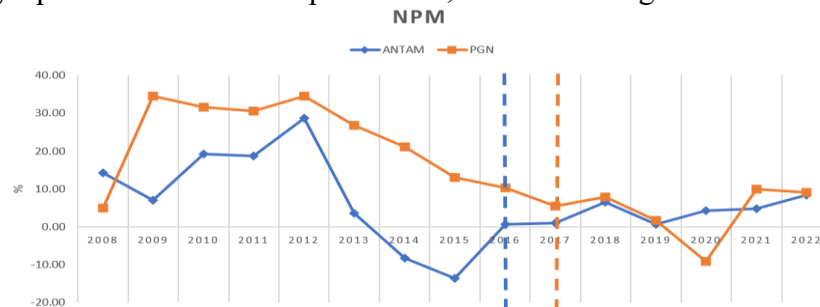


Figure 2 NPM Trends from 2008 to 2022

If we look at Figure 2, it turns out that the average NPM is lower after holding, both for PT ANTAM and PT PGN. Referring to Law number 19 of 2003 concerning BUMN, the purpose of restructuring is:

- a) to improve the performance and value of the company,
- b) to provide benefits in the form of dividends and taxes to the state,
- c) to produce products and services at competitive prices to consumers.

However, from the perspective of the NPM trend, PT ANTAM shows an increasing trend after the holding. Meanwhile, PT PGN experienced a significant decline before the holding and still fluctuated after the holding. To compare the impact of the holding on the NPM variable in PT ANTAM and PT PGN, an analysis was carried out using a t-test for two independent samples because the data on the NPM variable were normally distributed. The test results are presented in Table 2.

Based on the testing of Table 2, it is known that PT Antam does not yet have enough evidence to state that the formation of holding has an impact on NPM or in other words, the average NPM before and after holding is not different. However, PT PGN obtained different results, namely there was a significant difference in the average NPM value between before and after holding. The interview method was conducted to obtain data on the NPM condition. Interviews were conducted by the author on September 13, 2023 and September 15, 2023 to the management of PT PGN and PT Antam. The results obtained were an explanation that the NPM trend condition was mostly caused by external factors of the company. According to PT PGN Management, the decline in NPM in 2016 and 2017 occurred due to the acquisition of PT Pertamina. The decline in 2019 was due to a tax dispute due to a Supreme Court decision stating that PT PGN had lost and had to pay taxes. Meanwhile, in 2020, the decline in NPM was caused by the pandemic, tax disputes due to the Supreme Court's decision on 18 lost cases, and government policies regarding certain natural gas prices (HGBT), so that PT PGN could not sell at commercial prices.

Table 2. Results of Testing the Impact of Holding on the NPM Variable

Variable	t-stat	p-value and decision	Conclusion
PT ANTAM Median Value Before : 7,79 Median Value After : 4,25	0,615	0,549 Failed to Reject H_0	There is no difference in the mean value of NPM between before and after holding
PT PGN Median Value Before : 21,31 Median Value After : 3,92	2,924	0,012 Reject H_0	There is a difference in the mean value of NPM between before and after holding

The same condition also occurs in PT Antam where the NPM trend is largely caused by the company's external conditions. If seen from the movement of the NPM trend that goes up and down, but there is an upward trend after holding. In 2012, NPM experienced a significant increase compared to the previous and subsequent years. This happened because there was a mark to market for free carried shares obtained from investments in gold companies in Indonesia. In 2014 and 2015, NPM also decreased because there was a ban on the export of nickel ore and bauxite. There was an improvement in 2016 due to the contribution of gold products, so that PT Antam began to strengthen the domestic gold business which provided better profits. The construction of a smelter in 2017 made bauxite exports reopen. In addition, the existence of impairment makes subsidiaries one of the burdens. The Covid pandemic in 2020 closed the trading doors which affected non-gold commodities, while gold experienced an increase in price and volume which was able to help the NPM in 2020. This condition will continue until 2022 and will continue to improve with the end of the pandemic and the price conditions of vero nickel which tend to improve in the global market.

3.2 DER Variable

The average DER variable at PT ANTAM and PGN after holding is greater than before holding, this is the opposite of the NPM variable. DER is a measure to measure leverage. This leverage shows the proportion of debt to finance investment. DER shows the comparison of debt and equity in the Company's funding and the ability of its own capital to meet all its obligations.

A smaller DER figure indicates good solvency and condition of the company because it is better at paying all obligations. Conversely, a larger DER means a larger debt which results in increasing the company's interest expense which will eventually reduce the company's income. A larger DER ratio indicates a company's capital structure that utilizes more debt than equity so that the company's risk reflected is relatively high.

The Mann-Whitney test is used as an analysis method to see the impact of holding on the DER variable in both companies. This test is used because one or both variables are not normally distributed. The test results can be seen in Table 3.

Table 3. Results of Testing the Impact of Holding on DER Variables

Variable	t-stat	p-value and decision	Conclusion
PT ANTAM Median Value Before : 50,7 Median Value After : 61,6	-1,061	0,289 Failed to Reject H_0	There is no difference in the mean value of DER between before and after holding

Variable	t-stat	p-value and decision	Conclusion
PT PGN Median Value Before : 111,36 Median Value After : 133,7	-1,102	0,27 Failed to Reject H_0	There is a difference in the mean value of DER between before and after holding

From the test results in Table 3, it was found that the formation of a holding has not had a significant impact on financial performance, especially the DER variable, both in PT ANTAM and PT PGN. According to PT PGN management, debt was incurred for capital expenditure in order to expand the gas network on the Rokan pipeline. PT ANTAM management explained that the increase in DER occurred because of capital investment made using debt such as the renewal of factory facilities in Pomala, the construction of a smelter in Halmahera, and the acquisition of PT ICE, not because of the formation of a holding.

3.3 DPR Variable

Both companies have similar trends so that they have differences with the previous analysis of the NPM and DER variables. For the DPR variable between the average before and after holding shows different results in both companies. PT ANTAM shows a larger average DPR after holding than before holding. While PT PGN DPR given to shareholders after holding decreased compared to before holding.

DPR is a ratio to calculate the dividend variable that compares how much proportion of net profit after tax is paid as dividends to shareholders. Usually companies are reluctant to reduce the dividends they share, because a decrease in dividends will give a bad perception to investors. Companies that cut dividends are considered to be experiencing liquidity problems so they need to get additional funds through dividend cuts. This condition is in accordance with what happened at PT ANTAM which showed that the average DPR of PT ANTAM after holding was greater than before holding. However, there is a difference at PT PGN, where the average DPR after holding was lower than before holding.

There have been many studies that strengthen the opinion that profitability is the most important element for managers in deciding dividend policy (Le et al., 2019). The liquidity ratio shows the Company's ability to pay its debt obligations (Le et al., 2019). Therefore, in order to meet debt repayment obligations and other obligations, the Company can reduce their dividends. Increasing the debt ratio will decrease DPR and decreasing the debt ratio will decrease DPR.

If profitability is calculated using the NPM ratio and liquidity is calculated using the DER ratio, the DPR ratio of PT ANTAM has a different tendency from the research of Lintner, Nguyen and Tran. Although the NPM ratio and DER ratio of PT ANTAM after holding tend to be less good, the DER ratio tends to be greater after holding. The debt to equity ratio does not affect the dividend payment ratio (Fitriana, 2022). Signaling theory explains that companies that do not distribute dividends can be categorized as experiencing financial difficulties. BUMN tends to pay dividends routinely as long as the leverage level is still normal and the financial condition is in good condition.

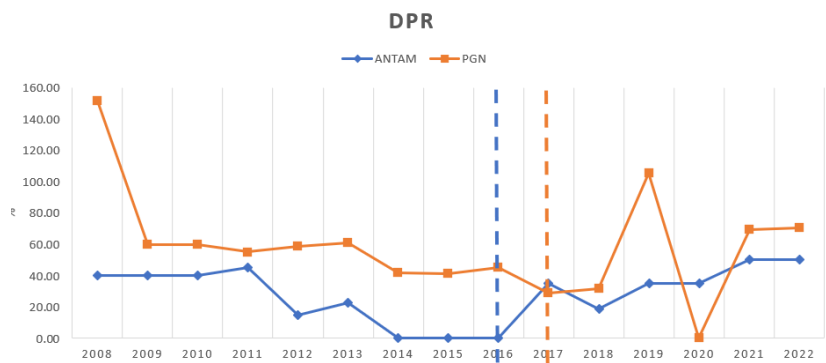


Figure 3. DPR Trends from 2008 to 2022

The trend of DPR data from 2008 to 2022 shows that the DPR value given by PT ANTAM is always lower than the DER given by PT PGN. Except in 2017 and 2020 which showed that the DPR value of PT ANTAM was higher than that of PT PGN. After the holding was carried out at PT PGN, the DPR given by PT PGN still fluctuated, in one condition it would be very high but after that it could be very low and even reach zero percent. Meanwhile, at PT ANTAM, three years before the holding was carried out, the DPR given by PT ANTAM was zero percent which would then improve after the holding was carried out.

The t-test for two independent samples was conducted to see the impact of holdingization on the DPR variable. The test results can be seen in Table 4. The test results show that holdingization has not had a significant impact on financial performance, especially DPR. In the descriptive analysis, it is known that DPR at PT ANTAM increased when compared to before holding. However, the test results showed that the increase that occurred was not significant so that the average before and after holding at PT ANTAM was concluded to be no different.

Table 4 Results of Testing the Impact of Holding on the DPR Variable

Variable	t-stat	p-value and decision	Conclusion
PT ANTAM Median Value Before : 22,5 Median Value After : 37,28	-1,666	0,12 Failed to Reject H_0	There is no difference in the mean value of DPR between before and after holding
PT PGN Median Value Before : 60,26 Median Value After : 55,43	0,246	0,81 Failed to Reject H_0	There is a difference in the mean value of DPR between before and after holding

According to PT PGN management, the amount of DPR depends on the policy at Pertamina. In determining the amount of DPR, there are certain criteria made by Pertamina such as cash needs at Pertamina and loan payments. The policy had an impact in 2019 where DPR was very high because there was a request from Pertamina. In 2020 there was a decrease because NPM in that year also decreased.

PT ANTAM also has the same condition, PT ANTAM management explained that the dividend payment has increased in the last 3 years. Initially, the dividend payment was carried out based on the policy promised in the dividend prospectus, which was 30%. This condition changed when the Ministry of BUMN requested an increase in contribution of up to 50%.

3.4 CR Variable

CR is a measure to measure the company's liquidity. Liquidity shows the company's ability to meet short-term obligations. CR can be used to see the company's ability to pay current obligations with owned assets. The higher the CR ratio, the better the company's ability to pay current debts with owned assets. With the holding, it is expected to increase the value of a Company's assets so that it is able to meet short-term obligations compared to before holding. However, if seen from Table 5, the CR value after holding is lower than before holding.

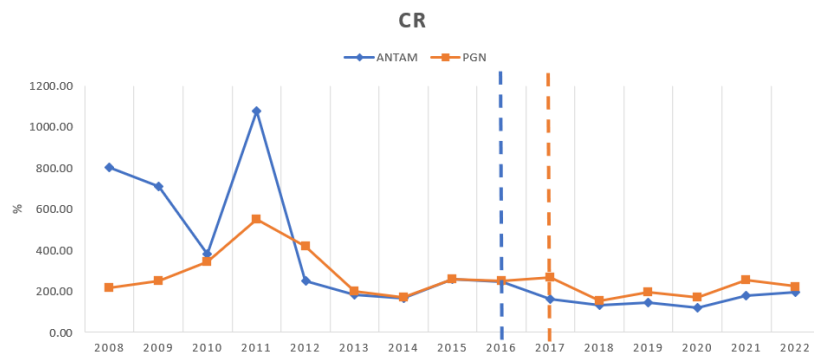


Figure 4. CR Trends from 2008 to 2022

Based on the graph in Figure 4, the movement of CR data shows that the CR value of PT ANTAM tends to be smaller when compared to the CR of PT PGN after 2011. Only in 2008 to 2011 was the CR value of PT ANTAM higher than that of PT PGN.

Table 5 Results of Testing the Impact of Holding on the DPR Variable

Variable	t-stat	p-value and decision	Conclusion
PT ANTAM Median Value Before : 452,56 Median Value After : 155,77	-2,828	0,048 Reject H_0	There is a difference in the mean value of CR between before and after holding
PT PGN Median Value Before : 292,4 Median Value After : 199,29	-1,96	0,05 Reject H_0	There is a difference in the mean value of CR between before and after holding

The results of the test of the average difference in CR before and after holding showed no different results in both PT ANTAM and PT PGN, namely there is sufficient evidence to state that the average CR before holding is lower than the average CR after holding. So it can be concluded that in PT ANTAM and PT PGN, the ability to pay current debts with owned assets has decreased after holding.

Based on the explanation from PT PGN management, the decrease in CR after holding was due to the acquisition of Pertamina where payments were made in stages in 2017 and 2018, provisions for tax disputes in 2019 and 2020 recorded in current liabilities and the difference between HGBT and commercial prices recorded in current liabilities. A similar thing was felt by PT ANTAM, namely the decrease in CR caused by the high dividends distributed up to 50% as requested by the Ministry of BUMN.

3.5 BOPO Variable

Operational costs are costs incurred by a company in running and managing a business. BOPO is the ratio between a company's operational costs and operational income. BOPO is also called the efficiency ratio because the BOPO ratio is used to see management's ability to control operational costs. Increasingly efficient operational cost control is indicated by a smaller BOPO ratio. This operational cost efficiency can drive the company's profits to be even greater.

The average BOPO of PT ANTAM is getting lower after holding. This is in line with the results of previous studies such as Utoyo (2019) where the formation of a holding company is expected to be a facility to facilitate the parent company and improve the performance of subsidiary companies due to more efficient synergy. From an average perspective, BOPO of PT PGN is higher than before holding. From the trend that occurred in 2008-2022, the BOPO ratio of PT ANTAM and PT PGN has a tendency that is not different before and after holding. However, it should be noted that at PT ANTAM when holding was carried out, the BOPO ratio of PT ANTAM increased sharply.

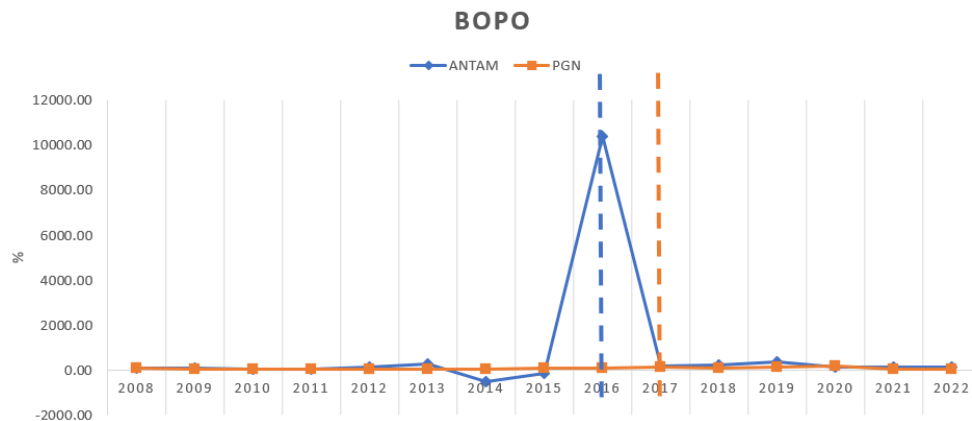


Figure 5. BOPO Trends from 2008 to 2022

The test results to determine the impact of holding can be seen in Table 6. Both companies do not have enough evidence to state that there is a significant impact of holding on BOPO.

Table 6 Results of Testing the Impact of Holding on the BOPO Variable

Variable	t-stat	p-value and decision	Conclusion
PT ANTAM Median Value Before : 1153,33 Median Value After : 183,24	-1,65	0,509 Failed to Reject H_0	There is no difference in the mean value of BOPO between before and after holding
PT PGN Median Value Before : 63,9 Median Value After : 99,2	-0,857	0,44 Failed to Reject H_0	There is no difference in the mean value of BOPO between before and after holding

From the explanation of PT PGN management, after holding there were indeed some efficiencies due to cost sharing. However, in terms of the BOPO ratio, there was no difference between before and after holding. Based on the interview results, there was no difference because the decrease in operational costs was followed by a decrease in operational income as reflected in the NPM after holding which tended to decrease.

PT ANTAM management explained that with the holding, there are several efficiencies that are carried out, such as joint procurement in the "Bersatu Jaya" program. This procurement is carried out because there is the same need for all members of the holding, so it is hoped that they will get a cheap price if the procurement is carried out in large volumes. In terms of funding, national pooling is carried out to obtain cheap funding. However, this step does not have much effect on BOPO because there are fluctuations in income and costs. Despite the increase in commodity prices, PT Antam also experienced fluctuations in costs such as the increase in gasoline prices in 2021, the purchase of gold raw materials which must be done through exports. Table 14 presents a summary of hypothesis testing to answer the first research problem. The results show whether or not there is a significant influence on the formation of a holding based on financial report data

4. CONCLUSION

4.1 Conclusion

Based on the analysis and hypothesis testing, several things can be concluded as follows:

- a. The results of the test analysis show a decrease in the NPM and CR variables at PT PGN after holding, while for financial performance, namely DER, DPR, and BOPO, there is no difference between before and after holding. At PT ANTAM, only the CR variable is significantly different between before and after holding, while for the other four financial performances there is no difference.
- b. Testing on the financial variables of PT ANTAM shows that holdingization has not had a significant impact on NPM, DER, DPR, and BOPO. In addition, the results of the analysis show that the mean value of CR before holding is greater than after holding. The decrease in CR after holding was due to the high dividends distributed, reaching 50% as requested by the Ministry of BUMN.
- c. The results of testing on the financial variables of PT PGN state that holdingization has not had a significant impact on DER, DPR, and BOPO. In addition, the results of the analysis show that the mean value of CR before holding is greater than after holding. The decrease in CR after holding was due to the acquisition of Pertamina where payments were made in stages in 2017 and 2018, provisions for tax disputes in 2019 and 2020 recorded in current liabilities and the difference between HGBT and commercial prices recorded in current liabilities.
- d. In general, the impact of holding has not been seen significantly. Holding which is expected to be able to improve the company's financial performance has not been seen.

4.2 LIMITATION

The research limitations that researchers experienced are as follows:

- a. This study only analyzes the impact of holdingization on PT Antam and PT PGN, the study will be more comprehensive if research is conducted on other subsidiaries in each holding;
- b. Based on interviews with PT Antam management, it was explained that there was a change in the holding strategy applied to the parent company, where initially it was a strategic holding then became an active strategic holding. The research would be better if it included the period of this holding strategy change;
- c. The research period after holding is carried out for performance until 2022, this means that the impact study after holding is only carried out for 5 years. The research will be more comprehensive if the impact period after holding is longer.

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