



## Analysis of Liquidity, Solvency, and Activity on Profitability in Oil and Gas Sub-Sector Companies Listed on the IDX for the 2020-2023 Period

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### Abstract:

Welcoming the readiness of energy security in Indonesia, oil and gas sub-sector companies must be ready to face this situation. This readiness is seen from the financial aspect of the company. Good financial performance is seen from the profit growth which is the benchmark for a company's performance. The higher the profit achieved by the company indicates the better the company's performance. If the company's financial ratio is good, then the company's profit growth is also good. The purpose of this study is to determine the Analysis of Liquidity, Solvency, and Activity on Profitability. This research was conducted on Oil and Gas Sub-sector Companies listed on the Indonesia Stock Exchange for the 2020-2023 period. The population in this study was 47 companies, using purposive sampling a sample of 16 companies. This research method uses quantitative description. The result is that liquidity affects profitability, solvency does not affect profitability and activity does not affect profitability.

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## INTRODUCTION

According to Ministerial Regulation No. 09 of 2023 issued by the Ministry of Energy and Mineral Resources (ESDM), the implementation of natural gas business activities is designed to maximize contributions to the national economy while strengthening Indonesia's industrial and trade sectors. The regulation emphasizes a paradigm shift in natural gas management, framing energy as a key driver of economic growth that generates multiplier effects across local and national economies. Notably, the Indonesian government remains committed to prioritizing domestic gas allocation for critical sectors, including Industrial Zones, Special Economic Zones (SEZs), Power Plants, transportation, and household consumption.

**Table 1. State Budget Revenue from the Oil Sector (Data in billions)**

| Year | Planning | Realization | Achievement Presentation |
|------|----------|-------------|--------------------------|
| 2019 | 118,606  | 83,600      | 70.49%                   |
| 2020 | 40,385   | 44,868      | 111.10%                  |
| 2021 | 57,934   | 64,998      | 112.19%                  |
| 2022 | 106,487  | 111,992     | 105.17%                  |
| 2023 | 96,137   | 87,408      | 90.92%                   |

Source: Ministry of Finance data (2024)



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Revenue data based on the Ministry of Finance shows that planning for revenue in the oil and gas sector on average exceeds 100%, indicating that revenue in the oil and gas sector always exceeds the target.

**Table 2. State Budget Revenue from the Gas Sector (Data in billions)**

| Year | Planning | Realization | Achievement Presentation |
|------|----------|-------------|--------------------------|
| 2019 | 41,171   | 37,500      | 91.08%                   |
| 2020 | 12,909   | 24,211      | 187.55%                  |
| 2021 | 17,066   | 31,167      | 185.27%                  |
| 2022 | 32,160   | 36,705      | 112.56%                  |
| 2023 | 35,032   | 28,769      | 82.12%                   |

Source: Ministry of Finance data (2024)

The Legal and Public Relations Bureau of the Ministry of Energy and Mineral Resources stated that until now the oil and gas sub-sector is still the largest contributor to state revenue, and until now the oil and gas sub-sector is still believed to be a significant contributor to state foreign exchange.

Based on PERMEN ESDM number 09 of 2023 The challenge of oil and gas production is the condition of the global oil and gas industry which is experiencing a decline in performance and an unstable exchange rate. With the consistency of economic policy packages as fiscal policies and the *Gross Split Investment scheme*, it is hoped that it can maintain the oil and gas production target.

The problem in the Oil and Gas industry is related to the gap between *supply* and *demand* for oil and natural resources which is still quite large. This gap has occurred before the Covid-19 pandemic. However, the direction of economic recovery is predicted to increase energy demand again. Meanwhile, gas *supply* is still in surplus, but production levels tend to decline. (Ministry of Energy and Mineral Resources, 2020)

Short and medium-term production increasing oil and gas production is still an absolute choice for national energy security, considering that the need for oil and gas volume is still quite high. According to (Paramita, 2022) factors that influence the development of the supply and *demand gap* in upstream oil and gas include investment in the upstream oil and gas sector. Paramita (2022) also mentioned that there is another problem in the energy sector, namely the downward trend in oil and gas *lifting* in the last decade caused by oil and gas production that relies on old wells that have experienced a scientific decline.

However, over time the Government through BUMN tried to find a solution to the problem. In 2024, PT Pertamina (Persero) succeeded in increasing its strategic role in providing Indonesian energy through the management of two giant oil and gas blocks, namely the Rokan Block in Riau and the Mahakam Block in East Kalimantan. Pertamina's ability to carry out upstream oil and gas operations and businesses in these two blocks brings a new spirit and a symbol of national awakening to realize national energy resilience, independence, and sovereignty. ( Pertamina, 2024 )

Entering its 66th year, Pertamina through PT Pertamina EP (PEP) Regional Jawa Subholding Upstream Pertamina has successfully proven additional hydrocarbon resources by drilling two exploration wells in West Java Province. The two wells are East Akasia Cinta (EAC)-001 in the PEP Jatibarang Field work area, Indramayu Regency and the East Pondok Aren (EPN)-001 Well in the PEP Tambun Field work area, Bekasi Regency. Through the Production Flow Test (Drill Stem Test/DST) of the EAC-001 well, the results of the oil flow rate were 30 BOPD, gas reached 2.08 MMSCFD, and condensate equivalent to 15.05 BCPD. (Pertamina, 2023).

In 2024, Pertamina Hulu Rokan will continue to increase oil and gas production by conducting integrated drilling to present quality, efficient, reliable, and safe oil wells. A total of 570 wells will be drilled to increase national oil reserves in the Rokan WK. (Pertamina, 2024).

The demand for domestic oil and gas consumption needs cannot be avoided, as well as the discovery of promising oil and gas resource potential. This is proven by the discovery of oil and gas wells in the last 1 year. The President Director of Pertamina Hulu Rokan once said that it costs 600,000 to 2,000,000 US dollars (US) to drill one oil well depending on the depth of the wells. These funds are used for drilling operations from procurement to well-processing operations. (Jafee A Suardin, 2022) .

So, to welcome the spirit of the government to meet the supply of oil and gas, are the actors in the oil and gas sector ready to absorb the oil and gas that will be provided by the government through the BUMN? Based on Permen number PER-03 / MBU / 08/2017 concerning the BUMN Cooperation Guidelines, if you are going to cooperate with BUMN, you need to attach documents including, a business plan covering operational, financial, legal and market aspects, risk management studies, and risk mitigation. Conducting *due diligence* with BUMN must include good financial report performance. Good financial report performance is seen from profit growth which is a measure of a company's performance. The higher the profit achieved by the company indicates the better the company's performance. If the company's financial ratio is good, then the company's profit growth is also good (Juliar & Wahyudi, 2023)

Profit in a company is a benchmark of whether a company can increase profitability or not, and if the company experiences losses, whether the loss only has a small impact or can cause a company to go bankrupt. From this information, it is necessary to adjust the target orientation of changes in the company's strategy and policies in investing. Stakeholders in the upstream oil and gas sector need to be selective in determining adjustments in several work programs such as maintaining streamlining *operating expenses* (OPEX) and *capital expenditures* (capex)

After seeing the financial reports of several companies still experiencing losses, then measure the level of success of the company in obtaining a rate of return on profit with financial analysis, namely the profitability ratio. Therefore, by using *Return On Assets* (ROA).

Increasing Profitability means that the company management is required to increase its income or business profit to finance all company activities, increase company assets, and pay off company obligations. With Profitability, a company can measure how much profit the company makes from sales, assets, and return on equity.

To increase profits, companies usually use debt as one of the external funding decisions. The policy of taking this debt is usually intended to increase company funds that are used by the company for the company's operational needs. The availability of sources of funds and capital greatly affects the continuity of operational activities and the company's opportunities to grow. In addition to being able to increase company capital, the use of debt can also increase risk. Companies that use debt to fund the company and are unable to pay off their debts will be threatened with liquidity (Gatha, 2022).

In addition, companies often take debt as a source of funds because taking debt is profitable for the company because it can be used to reduce income tax so that the income tax paid by the company will be smaller. Of course, if a company chooses to take debt as an alternative capital, the company must work harder so that the use of the capital can provide benefits to the company so that the company can grow and pay all debts to creditors. Therefore, to find out and measure the company's ability to meet its obligations, both obligations to parties outside the company, and within the company, you can use the liquidity ratio.

For the company's operational costs other than debt, using capital is the main thing the company, to use financing with debt or *leverage* investment by shareholders must be sufficient, so that the company remains under control and shareholders still have control

over the company with the investment they have in the company. In providing loans, creditors look at the equity or funds deposited by the owner, so if shareholders only provide a small portion of the total financing then it can be said that the company's risk is mostly on the creditor. Therefore, to find out the use of debt with capital can be calculated with the solvency ratio. Using more debt than equity will reduce the level of solvency, due to having to pay increased interest. This will result in decreased profitability.

To increase the company's profitability, the company must maximize its company resources, measured by the Activity ratio, namely the ratio that can be interpreted as a measurement of the level of efficiency (effectiveness) in utilizing resources owned by the company, in its use this Activity ratio will be seen whether the company has been effective and efficient in managing assets to increase Profitability (Mukaromah & Futaqi, 2023) To determine the effectiveness of the use of company resources to increase its profits, it can be measured using the Activity ratio.

Liquidity Ratio is the company's ability to pay off short-term liabilities or debts with a term of one year and the company's long-term debts (Gatha, 2022). If the company can fulfill its obligations, it can be said that the company is in a liquid state *and vice versa* if the company is unable to fulfill these obligations, it can be said that the company *is not liquid*. The results of research conducted by Juliar (2023) that Liquidity has a significant influence on the ability to make a profit.

The solvency ratio is a ratio used to measure the extent to which a company is financed by debt or a ratio used to measure how much debt the company is responsible for to fulfill assets (Gatha, 2022). In line with research conducted by Gatha (2022), Solvency has a significant and negative effect on *Return to Assets (ROA)*.

Activity Ratio is a ratio used to measure the effectiveness of using its assets, the ratio used to measure the company's ability to manage the company's assets so that it can provide cash flow for the company (Tyas *et al.*, 2023). In line with the results of research conducted by Tyas *et al* (2023) the Activity Ratio has a positive and significant effect on Financial Report Performance.

This study refers to Juliar & Wahyudi's (2023) research entitled The Effect of Liquidity, Solvency, and Profitability on Profit Growth. The study stated that Liquidity has a significant effect, Solvency has no significant effect, and Joint Profitability has no significant effect. The difference between this study and previous studies is trying to add variables and variable indicators that have not been widely studied and are suspected of affecting profitability, namely by trying to add the Activity variable. In addition, there are additional components in each variable, such as Liquidity added with *Cash Ratio (CAR)* where previous studies did not consider the CAR formula in measuring the Liquidity variable. The addition of a ratio to the second variable, namely Solvency, by adding *the Debt-to-Equity Ratio (DER) component, and the addition of a ratio to the Activity variable with the Receivable Turn Over (RTO) and Total Asset Turn Over (TATO) components*. This is because each company has different conditions, so it is hoped that using a different variable measurement model can provide more optimal research results. Apart from that, previous research shows that not all variables influence the research results, so researchers are interested in retesting these variables and obtaining empirical evidence.

So based on the problems above, the author is interested in conducting scientific research entitled "The Effect of Liquidity, Solvency, and Activity on Profitability in Oil and Gas Sub-Sector Companies Listed on the Indonesia Stock Exchange (IDX) for the 2020-2023 Period"

Financial management is an effort and activity related to activities that obtain funds, manage funds, use funds, and allocate funds that can be done efficiently to increase the value of the company following the company's overall goals. (Gatha, 2022). According to Sujarweni (Decree of the Minister of Finance of the Republic of Indonesia No. 826/KMK.013/1992, 2017:76). The company's weight value is based on

profitability/rentability, liquidity, solvency, and additional indicators determined from year to year in the General Meeting of Shareholders following developments in the business world and the development of the Company.

Financial Management is an activity of planning, budgeting, auditing, managing, controlling, searching, and storing funds owned by a company (Wahyuni *et al.*, 2019). Financial management is defined as maximizing profit, and income and minimizing costs to obtain maximum decision-making in running the company so that it can grow and maximize the value of shareholder wealth. Efficient financial management has objectives that are used as standards, namely, maximizing shareholder prosperity, decision-making guidelines, considering owners, creditors, and stakeholders, and not ignoring social obligations (Wati *et al.*, 2022)

The definition of profitability ratio is the main ratio in a financial report because the main goal of the company is profit. The profitability ratio is very important for all users of the company's annual report because profit is the only determining factor in changes in the value of securities (Wahyuni *et al.*, 2019). The profitability ratio is the main factor that must be considered to be able to sustain a company's life because the company must be in a state of profit or profit. Without profit, it will be difficult for the company to attract capital from outside (Nurjayanti & Amin, 2022) It can be concluded that the Profitability Ratio is a ratio used to measure the level of management effectiveness in carrying out company operations which is characterized by the acquisition of profit from sales or investment results, can be calculated using the formula:

The following are the objectives and benefits of the profitability ratio (Sa'adah, 2024): (1) To measure or calculate the profit obtained by the company in one period; (2) To assess the company's profit position from the previous year to the current year; (3) To assess profit development over time; (4) To assess the amount of net profit after tax with equity; (5) To measure the productivity of all company funds used, both loan capital and equity; (6) To measure the productivity of all company funds used, both equity; (7) And other purposes.

Meanwhile, the benefits obtained are: (1) Knowing the level of profit obtained by the company in one period; (2) Knowing the company's profit position from the previous year to the current year; (3) Knowing the development of profits from year to year; (4) Knowing the amount of net profit after tax with equity; (5) Knowing the productivity of all company funds used, both loan capital and equity; (6) Other benefits.

The Liquidity Ratio is the company's ability to pay off short-term liabilities or debts with a term of one year and the company's long-term debts (Gatha, 2022). The following is the formula used to calculate the liquidity ratio in this study, the first ratio is the Current Ratio measuring the company's ability to pay short-term obligations or debts that will mature when billed. By calculating current assets divided by current liabilities (Gatha, 2022).

The second formula is the cash ratio used to calculate the amount of cash or cash equivalents available to pay its current liabilities, this ratio reflects the actual ability of a company to use cash to pay off its short-term liabilities immediately. (Wisna, 2023) to calculate cash ratio is cash and cash equivalents divided by current liabilities or short-term liabilities.

The solvency ratio is a ratio used to measure the extent to which a company is financed by debt or a ratio used to measure how much debt the company is responsible for to fulfill assets (Gatha, 2022). The following is the solvency ratio: the formula used to calculate the solvency ratio in this study. First *Debt to total assets* is a ratio used to measure comparison between total debt and asset capital. It can be said how much of the company's assets are financed by debt or how much debt affects its relation to asset processing (Gatha, 2022). *Debt to total assets* calculates total debt divided by total assets.

The second formula used is the *Debt-equity ratio*, the ratio used to determine the company's ability to pay obligations with equity or if the company is liquidated and to assess the company's limitations in borrowing money (Siringoringgo, 2020). By calculating total debt divided by total equity.

Activity Ratio is a ratio used to measure the effectiveness of using its assets, the ratio used to measure the company's ability to manage the company's assets so that it can provide cash flow for the company (Tyas *et al*, 2023). In line with the results of research conducted by Tyas *et al* (2023) the Activity Ratio has a positive and significant effect on Financial Report Performance. The following is the formula used to calculate the solvency ratio in this study, first *Receivable Turnover* is a ratio used to measure how many times accounts receivable can turn over in a certain period, by calculating the initial accounts receivable balance plus the final accounts receivable balance *divided* by 2 (two) (Junaedi, 2022). The second formula is *Total Assets Turnover*, used to measure the use of all company assets and the number of sales obtained for each rupiah, by calculating sales divided by total assets (Gatha, 2022).

## METHODS

This research method explains the population, sample, sampling technique, data type and source, data collection method, variable definition, variable measurement, and data analysis method that will be used in this research. Research method descriptive aiming For know mark a variable without connecting variable others. According to (Eka, 2023) research descriptive quantitative is research that aims To synthesize something that is being researched based on real things with method interesting conclusions from observed phenomena with the use of statistics. According to (Eka, 2023) states that method descriptive aims To describe real, actual, and actual phenomena, with the method synthesized in a way systematic description of the phenomenon being investigated. The population in this study were oil and gas companies listed on the Indonesia Stock Exchange for the period 2020-2023. In conducting sampling, the technique used in this study was *purposive sampling*. *Purposive sampling* is a sampling technique with certain considerations (Yulianti & Sarifah, 2023) and in determining the sample in this study, not all companies were used as research objects, but only a few would be used as research samples. A sample is part of the number and characteristics of a population.

The considerations that are used as criteria to determine whether or not it is suitable for use as a research sample are:

1. Oil and gas companies listed and still active on the Indonesia Stock Exchange in 2020-2023.
2. Oil and gas sub-sector companies that published their annual reports for the period 2020-2023.
3. Oil and gas sub-sector companies that use the rupiah as the reporting currency.

**Table 3. Sample Selection Criteria**

| No                             | Criteria  | Number of Companies |
|--------------------------------|---|---------------------|
| 1                              | Oil and gas sub-sector companies listed on the Indonesia Stock Exchange (IDX)           | 47 companies        |
| 2                              | Oil and gas sub-sector companies that do not use the rupiah as their reporting currency | 28 companies        |
| 3                              | Financial report not found  | 2 companies         |
| Final Sample Size of the Study |   | 16 companies        |
| Final Research Data Amount     |   | = 16 Data           |

Source: Data processing (2024)

## RESULTS AND DISCUSSION

**Table 4. Chow-Test**

| Effect Tes               | Statistic | d.f     | Prob   |
|--------------------------|-----------|---------|--------|
| Cross-section F          | 2.857142  | (15,42) | 0.0037 |
| Cross-section Chi-Square | 45.011158 | 15      | 0.0001 |

Source: Data processing (2024)

Based on the results of the Chow test above, it can be concluded that the significance value of the Cross Chi-Square Probability is smaller than alpha ( $0.0001 < 0.05$ ). Then it can be continued with the Hausman test to determine between the fixed effect model and the random fixed model.

**Table 5. Hausman-Test**

| Test Summary         | Chi-Sq. Statistic | Chi-Sq. d.f | Prob   |
|----------------------|-------------------|-------------|--------|
| Cross-section Random | 16.548628         | 6           | 0.0111 |

Source: Data processing (2024)

Based on the results of the Hausman test, it can be seen that the significance value of the random cross-section is smaller than the significance value ( $0.0111 < 0.05$ ). So, it can be concluded that the fixed effect model can be continued.

**Table 6. Panel Data Regression Analysis Results**

| Dependent Variable: ROA                           |             |            |             |        |
|---|-------------|------------|-------------|--------|
| Method: Panel EGLS (Cross-section weight)         |             |            |             |        |
| Date: 10/03/24 time 14: 50                        |             |            |             |        |
| Sample: 2020 2023                                 |             |            |             |        |
| Periods include: 4                                |             |            |             |        |
| Cross-section included: 16                        |             |            |             |        |
| Total panel (balanced) observations: 64           |             |            |             |        |
| Linear estimation after one-step weighting matrix |             |            |             |        |
| Variable  | Coefficient | Std. Error | t-Statistic | Prob.  |
| C   | 0.710027    | 0.167542   | 4.237903    | 0.0001 |
| CR  | -0.512052   | 0.108341   | -4.726324   | 0.0000 |
| CAR   | 0.359051    | 0.083081   | 4.321682    | 0.0001 |
| DR  | 0.268924    | 0.128774   | -2.088346   | 0.0429 |
| DER   | 0.035609    | 0.044973   | -0.791781   | 0.4329 |
| RTO   | 0.051908    | 0.036313   | -1.429468   | 0.1603 |
| TATO  | 0.425330    | 0.083226   | 5.110.569   | 0.0000 |

Source: Data processing (2024)

Based on the table above, the regression model can be formulated as follows:  

$$ROA = 0.710027 - 0.512052 CR + 0.359051 CAR - 0.268924 DR - 0.035609 DER - 0.051908 RTO + 0.425330 TATTOO$$

Based on the table above, it can be seen that the constant value of the regression coefficient of each variable, the following is the panel data regression equation obtained:

The constant value of -5.523935 indicates that if the independent variable has a constant or fixed value, then the ETR has a value of -5.523935.

Based on the analysis equation above, it can be concluded that the first independent variable, namely *the current ratio* (CR) and *Cash Ratio* (CAR) have coefficient values of -0.512052 and + 0.359051. Based on the coefficient value, it shows that every one-unit increase in *the current ratio* (CR) will result in a decrease in the Profitability (ROA) value of -0.512052, and every one-unit increase in *the Cash Ratio* (CAR) will result in an increase in the Profitability (ROA) value of 0.359051 assuming the value of other independent variables does not change (constant) and vice versa.

Based on the analysis equation above, it can also be concluded that the second independent variable, namely *debt to asset ratio* (DR) and *debt to equity ratio* (DER) have coefficient values of -0.268924 and -0.035609. This coefficient value shows that every one-unit increase in *debt to asset ratio* (DAR) will result in a decrease in Profitability (ROA) value of -0.268924 and every one-unit increase in *debt to equity ratio* (DER) will result in a decrease in Profitability (ROA) value of -0.035609. Units assuming the value of other independent variables do not change (constant) and vice versa.

It can also be concluded that the third independent variable, namely *Receivable Turn Over* (RTO) and *Total Asset Turn Over* (TATO) has a coefficient value of -0.051908 and 0.425330. Based on the coefficient value, it shows that every increase of one unit of *Receivable Turn Over* (RTO) will cause the Profitability (ROA) value to decrease by -0.051908 and every increase of one unit of *Receivable Turn Over* (RTO) will cause the Profitability (ROA) value to increase by 0.425330 units with the assumption that the value of other independent variables does not change or is constant and vice versa

**Table 7. Partial Test (t Statistic Test)**

| Dependent Variable: Profitability (ROA)           |             |            |             |        |
|---|-------------|------------|-------------|--------|
| Method: Panel EGLS (Cross-section weight)         |             |            |             |        |
| Date: 10/03/24 time 14: 50                        |             |            |             |        |
| Sample: 2020 2023                                 |             |            |             |        |
| Periods include: 4                                |             |            |             |        |
| Cross-section included: 16                        |             |            |             |        |
| Total panel (balanced) observations: 64           |             |            |             |        |
| Linear estimation after one-step weighting matrix |             |            |             |        |
| Variable  | Coefficient | Std. Error | t-Statistic | Prob.  |
| C   | 0.710027    | 0.167542   | 4.237903    | 0.0001 |
| CR  | -0.512052   | 0.108341   | -4.726324   | 0.0000 |
| CAR   | 0.359051    | 0.083081   | 4.321682    | 0.0001 |
| DR  | 0.268924    | 0.128774   | -2.088346   | 0.0429 |
| DER   | 0.035609    | 0.044973   | -0.791781   | 0.4329 |
| RTO   | 0.051908    | 0.036313   | -1.429468   | 0.1603 |
| TATO  | 0.425330    | 0.083226   | 5.110.569   | 0.0000 |

Source: Data processing (2024)

The current Ratio has a probability of 0.0000, less than 0.05, or <0.05 and *its coefficient value* is -0.512052. This shows that the CR variable has a negative effect on Profitability (ROA). *Cash Ratio* has a probability of 0.0001. less than 0.05 or <0.05 and *the coefficient value* is 0.359051. This shows that the variable has a significant positive effect



on Profitability (ROA). Debt to Asset Ratio has a probability of 0.0429. less than 0.05 or  $<0.05$  and the *coefficient value* is -0.268924. This shows that the *DR variable has a significant negative effect* on Profitability (ROA). Debt to equity ratio has a probability of 0.4329, more than 0.05 or  $> 0.05$  and the *coefficient value* is -0.035609. This shows that the DER variable does not affect Profitability (ROA). Receivable turnover has a probability of 0.1630. more than 0.05 or  $> 0.05$  and the *coefficient value* is -0.051908. This shows that the RTO variable does not affect Profitability (ROA). Total Asset Turnover has a probability of 0.000, less than 0.05 or  $<0.05$  and the *coefficient value* is 0.425330. This shows that the variable *has a significant positive effect* on Profitability (ROA).

The Effect of Liquidity on Profitability in Oil and Gas Subsector Companies Listed on the IDX in 2020-2023 based on the results of data analysis, it can be seen that the *current ratio* has a probability of 0.0001, less than 0.05 or  $<0.05$  and its *coefficient value* is -0.512052. This shows that the *current ratio variable* has a negative effect on profitability. It can be concluded with several possibilities, including that companies in the oil and gas sector pay their short-term liabilities using assets, resulting in a decrease in the company's profit.

*Cash Ratio* has a probability of 0.0000. less than 0.05 or  $<0.05$  and the *coefficient value* is 0.359051. This shows that the variable has a significant positive effect on ROA. Shows that the Company has enough cash to pay off its short-term money. The more liquid the Company is, the Company's obligations will decrease and it can focus more on increasing profits.

The results of the study are in line with the research conducted by (Amrita; 2016) which states that Liquidity shows a positive and significant influence on profitability. However, the results of this study are not in line with the research conducted by (Gatha, 2022) which states that Liquidity does not affect Profitability.

The Influence of Solvency on Profitability in Oil and Gas Subsector Companies Listed on the IDX in 2020-2023 Based on the results of data analysis, it can be seen that the *Debt to debt-to-asset ratio* has a probability of 0.0429. less than 0.05 or  $<0.05$  and the *coefficient value* is -0.268924. This shows that the *DR variable has a significant negative effect* on ROA. So, it can be said that the increasing DR will decrease profitability, this can be caused because the Company uses more debt as funding to carry out its activities. (Sri Wellis, 2022)

Debt to equity ratio has a probability of 0.4329, more than 0.05 or  $> 0.05$  and the *coefficient value* is -0.035609. This shows that the DER variable does not affect ROA.

The results of the study are in line with research conducted (Aprilia, 2022) that Solvency does not affect profitability. However, the results of this study are not in line with research conducted by Sansasilia and Budiyaniti (2015) which states that Solvency has a positive and significant effect on Profitability (ROA).

The Influence of Activities on Profitability in Oil and Gas Subsector Companies Listed on the IDX in 2020-2023, Receivable Turnover has a probability of 0.1630. more than 0.05 or  $> 0.05$  and the *coefficient value* is -0.051908. This shows that the RTO variable does not affect ROA. It can be concluded that the receivables turnover in the Company in this study is very low so it does not generate profit or does not increase the Company's Profitability.

Total Asset Turnover has a probability of 0.000, less than 0.05 or  $<0.05$  and the *coefficient value* is 0.425330. This shows that the variable *has a significant positive effect* on ROA. These results indicate the Company's efficiency in using its assets to generate profits.

The results of the study are in line with research conducted by (Aprilia, 2022) which states that activity does not affect profitability. The Activity Ratio has an effect (F Yeni Indryawati, 2008) (Amrita; 2017) which states that the Activity ratio affects ROA and that there is a positive and significant partial effect of Activity on profitability.

## CONCLUSION

The Effect of Liquidity on Profitability in Oil and Gas Subsector Companies Listed on the IDX in 2020-2023 based on the results of data analysis, the Current Ratio has a negative effect on profitability and the Cash Ratio shows that the variable has a significant positive effect on Profitability. The Effect of Solvency on Profitability in Oil and Gas Subsector Companies Listed on the IDX in 2020-2023 based on the results of data analysis, Debt to Asset Ratio has a significant negative effect on Profitability and Debt to Equity Ratio does not affect profitability. The Effect of Activity on Profitability in Oil and Gas Subsector Companies Listed on the IDX in 2020-2023 based on the results of data analysis, Receivables Turnover does not affect Profitability, and Total Asset Turn Over has a significant positive effect on Profitability

## REFERENCES

- Gatha, F. A. (2022). *Pengaruh Likuiditas, Solvabilitas Dan Aktivitas Terhadap Profitabilitas Perusahaan Subsektor Makanan Dan Minuman Yang Terdaftar Di Bursa Efek Indonesia (Bei) Perode 2016-2020*. Doctoral Dissertation, Universitas Buddhi Dharma.
- Juliar, F., & Wahyudi, I. (2023). Pengaruh Rasio Likuiditas, Solvabilitas dan Profitabilitas terhadap Pertumbuhan Laba Pada Perusahaan Pertambangan. *JIIP-Jurnal Ilmiah Ilmu Pendidikan*, 6(8), 5643-5651.
- Kementerian Energi dan Sumber Daya Mineral. (2023). *Laporan kinerja Kementerian Energi dan Sumber Daya Mineral 2023*. <https://www.esdm.go.id/assets/media/content/content-laporan-kinerja-kementerian-esdm-tahun-2023.pdf>
- Mukaromah, N. F., & Futaqi, F. A. (2023). Pengaruh rasio likuiditas, solvabilitas, dan aktivitas terhadap kinerja keuangan perusahaan manufaktur. *JEKPEND Jurnal Ekonomi dan Pendidikan*, 6(2), 73–83.
- Nurjayanti, T., & Amin, A. M. (2022). Analisis rasio profitabilitas untuk menilai kinerja keuangan PT. Wijaya Karya (Persero) Tbk. *Jurnal Economix*, 10(2)
- Paramita. (2022). Permasalahan dan Tantangan Peningkatan Investasi di Industri Hulu Migas. *Jurnal Anggaran: Isu dan Permasalahan Keuangan Negara*. 2(1). Wisman. (2023). Analisis Rasio Utang terhadap Ekuitas pada Perusahaan Pertambangan yang Terdaftar di Bursa Efek Indonesia. *Jurnal Ilmiah MEA*. 7(2).
- Pertamina. (2023). *Pertamina finds 2 new oil and gas sources in West Java* [News article]. <https://www.pertamina.com/id/news-room/energia-news/pertamina-cepat-2-source-migas-baru-di-jawa-barat>
- Pertamina. (2024, January 15). *Keberhasilan pengelolaan blok migas raksasa oleh Pertamina, simbol kebangkitan energi nasional* [Press release]. <https://www.pertamina.com/id/news-room/news-release/keberhasilan-pengelolaan-blok-migas-raksasa-oleh-pertamina-simbol-kebangkitan-energi-nasional>
- PT Indonesia Stock Exchange. (n.d.). *Home* [Website]. Indonesia Stock Exchange. <https://www.idx.co.id/id>
- Sa'adah, L., Nurarifin, M. R., & Fitriana, N. A. (2024). Analisis rasio profitabilitas sebagai alat ukur kinerja keuangan PT Bank Central Asia. *Jurnal Penelitian Manajemen dan Inovasi Riset*, 2(5), 144-155. <https://doi.org/10.61132/lokawati.v2i5.1188>
- Tyas, K. Z., Dewanty, A. R., Sechan, C., & Mukharomah, I. N. (2023). Analisis rasio aktivitas untuk menilai kinerja keuangan pada PT Adaro Minerals Indonesia Tbk yang terdaftar di Bursa Efek Indonesia (BEI). *Perwira Journal of Economics & Business*, 3(01), 58-68.

- Wahyuni, I., Pasigai, M. A., & Adzim, F. (2019). Analisis Rasio Profitabilitas Sebagai Alat Untuk Mengukur Kinerja Keuangan Pada Pt. Biringkassi Raya Semen Tonasa Groupjl. Poros Tonasa 2 Bontoa Minasate'Ne Pangkep. *Jurnal Profitability Fakultas Ekonomi Dan Bisnis*, 3(1), 22-35.
- Wati, T. A., Anjani, H. P., IJ, L. R., Sinaga, L. F., & Minallah, N. (2022). Manajemen keuangan dalam perusahaan. *Jurnal Manajemen Dan Bisnis*, 5(1), 50-55.
- Yulianti, R., & Sarifah, S. N. (2023). Pengaruh Pertumbuhan Ekonomi, Jumlah Penduduk, Dan Produksi Padi Terhadap Jumlah Konsumsi Beras Di Bali. *Jurnal Jendela Inovasi Daerah*, 6(1), 11-22.