



## The Effect of Leverage, Efficiency, and Liquidity on Profit Growth in Sharia Insurance Companies: A Case Study of PT Sinarmas Multiartha (2016-2023)

Andika Dian Ramadhan<sup>1</sup>, Wahyu Iryana<sup>2</sup>, Gustika Nurmalia<sup>3</sup>

<sup>1,2,3</sup>Ekonomi Dan Bisnis Islam, Perbankan Syariah, Universitas Islam Negeri Raden Intan Lampung, Indonesia

---

### ARTICLE INFO

### ABSTRACT

---

#### Article history:

Received Apr 30, 2025  
Revised May 12, 2025  
Accepted May 23, 2025

---

#### Keywords:

Efisiensi;  
Leverage;  
Likuiditas;  
Profit growth.

This study aims to examine the effect of leverage, efficiency and liquidity on the profit growth of the sharia insurance company PT Sinarmas Multiartha for the period 2016-2023. The population in this study is the profit growth of the sharia insurance company PT Sinarmas Multiartha for the period 2016-2023. The analysis method used is the multiple linear regression analysis method carried out with the help of Eviews 10. This study uses annual data for the period 2016-2023 for each research variable. The results of this study indicate that leverage has a positive and significant effect on the profit growth of the sharia insurance company PT Sinarmas Multiartha for the period 2016-2023. Leverage has a positive and significant effect on the Profit Growth of the sharia insurance company PT Sinarmas Multiartha for the period 2016-2023. Liquidity has a positive and significant effect on the profit growth of the sharia insurance company PT Sinarmas Multiartha for the period 2016-2023. Leverage ratio, efficiency and liquidity together have a significant effect on the Profit Growth of the sharia insurance company PT Sinarmas Multiartha for the period 2016-2023.

*This is an open access article under the [CC BY-NC](https://creativecommons.org/licenses/by-nc/4.0/) license.*



---

#### Corresponding author:

Andika Dian Ramadhan,  
Perbankan Syariah,  
Universitas Islam Negeri Raden Intan Lampung,  
Alamat : Jalan Letnan Kolonel H Jl. Endro Suratmin, Sukarame, Bandar Lampung, Lampung,  
35131, Indonesia.  
Surel: [andikadian830@gmail.com](mailto:andikadian830@gmail.com)

---

### 1. INTRODUCTION

The development of insurance in Indonesia has currently experienced very rapid progress after the government issued deregulation in the 1980s. emphasized again with the issuance of Law of the Republic of Indonesia Number 2 of 1992 concerning insurance business as one of the non-bank financial institutions, its role is becoming increasingly important. This is because in addition to its business activities that provide protection to the community, insurance is also an institution that collects funds from insurance premiums from the community and distributes them with claims. In addition to receiving premiums as one of the company's sources of income, the company also makes investments, the results of which are for the company's future capital (Marwansyah & Utami, 2017). The more insurance companies in Indonesia develop which will also

increase national premiums, the more Indonesia's economic growth will develop every year. With the increasing development of insurance companies in Indonesia which will also increase national premiums, the more Indonesia's economic growth will develop every year. Such as the many competitors and all sharia insurance companies and sharia banks that provide insurance products, sharia insurance products that are not yet varied and the Muslim community itself does not know what sharia insurance is and does not realize that sharia insurance is a necessity, while the majority of the Indonesian population is Muslim. One way that sharia insurance companies can do to be better known to the public is by promoting and socializing sharia insurance products so that they can attract public attention. Based on data from countries such as Pakistan, Indonesia, and India, which have the largest Muslim populations, many small countries actually have a higher percentage of Muslim populations. Indonesia has 84.35% of its total population as Muslims. Then Pakistan has 98.19% of its population as Muslims. Meanwhile, a small region on the northwest coast of Africa, namely Western Sahara, is the region with the highest percentage of Muslim population with almost 100% of the population. Unfortunately, because the area is still in the category of disputed territory and the United Nations (UN) has not recognized it as a country, the area is disqualified, so Pakistan is the largest in terms of percentage. Sharia insurance continues to experience significant growth in an effort to increase premium income in sharia insurance companies.

Insurance is a non-bank financial institution that implements sharia principles in its work operations (Isnaeni, 2019). Companies are required to always find ways to win the competition by managing the company as well as possible. A company can be said to have achieved success and succeeded in winning the competition with other companies, one indicator is if it can generate profits for its owners. Company performance in generating profits is one of the focuses that must be considered. Profit is an increase in capital (net assets) originating from side transactions or infrequent transactions of a business entity and from all transactions or other events affecting the business entity during a period except those arising from revenue or investment by the owner. The indicator of profit is net profit. Net profit is the final section in the income statement that reflects the company's performance in providing results for shareholders. The increase in company profits indicates that the company is experiencing profit growth (Adha & Sulasmiyati, 2017). The main goal of the company is to maximize profits (Karimah, 2019). According to (Putri et al., 2025) in order to generate maximum profit, company actors continue to strive to carry out various activities, then maintain their consistency every year so as not to experience losses, but achieving this is not easy.

Profit can be used as a basis for making investment decisions and future company plans. Changes in profits that continue to increase or grow can have an impact on bank operational activities because they can strengthen a company's capital (Febriyanti & Aini, 2022). The first factor in examining profit growth is leverage. The leverage ratio is a ratio that measures how much debt is used in company spending (Purwaningsih & Safitri, 2022). According to (ARIANTI, 2023) Leverage is an indication efficiency of the company's business activities and the distribution of business risks between the company owners and lenders or creditors, as short-term, medium-term and long-term debt items bearing interest costs. Meanwhile, according to (Blaszczynski & Green, 2012) leverage is a solvency ratio used to determine the company's ability to pay obligations if the company is liquidated. In this study, leverage can be measured by the Debt to Equity Ratio (DER). This ratio reflects the Company's ability to meet all of its obligations as indicated by how much of its own capital is used to pay debts (Hermanto & Ibrahim, 2020). According to (Zulkarnaen, 2018) a high ratio value indicates an increase in the risk to creditors in the form of the company's inability to pay all its obligations to shareholders, a high ratio will result in high interest payments which will ultimately lead to reduced profits and reduced dividend payments. Meanwhile, according to (Puspita &

Dewi, 2019) if a company has a high level of debt, it will have an impact on high financial risk, and it is likely that the company will not be able to pay its debts. The second factor of efficiency is a performance measure that fits the principles of management. A company is considered successful if it is able to consume input efficiently or produce output productively. Such management principles are appropriate to be applied in a business environment where producers hold control of the business (ILHAM, n.d.). (Yateno & Sulistiani, 2017) said that efficiency is a performance measure that fits the principles of management, a company is considered successful if it is able to consume input efficiently or produce output productively.

The BOPO ratio is often referred to as the efficiency ratio to measure the Company's ability to control operational costs against operational income. Bank Indonesia sets the best figure for the BOPO ratio to be below 90% (Susilowati et al., 2019). If the BOPO ratio exceeds 90% to close to 100%, it can be said that the company is inefficient in running its operations. Efficiency helps companies reduce non-interest expenses, such as administrative operating costs, so that profit margins increase, high efficiency is an indicator that company management can manage resources and operations more efficiently. By measuring the level of efficiency, it is necessary to describe how a company's short-term obligations can be met. The company's liquidity can be recognized if the company is able to pay off its short-term obligations before the deadline occurs. This liquidity is important for investors and creditors to pay attention to because it can provide signals in the future regarding dividends and interest to be paid (MITASARI & IRSYAD, 2023). The level of liquidity can be proxied using the current ratio which uses the components of all current assets as fulfillment of short-term debt. According to (Atul et al., 2022) the current ratio is a commonly used measure of short-term solvency, the ability of a company to meet current debt needs when due by using the current assets owned, the greater this ratio means the more liquid a company is.

Factors in measuring the liquidity ratio include the current ratio, the quick ratio, and the cash ratio. If the liquidity ratio is high, it can be concluded that there is more cash than needed or liquidity is disrupted (Suherman, 2017). In previous research, it was found In previous research, it was found (Warianto & Rusiti, 2014). The higher the current ratio of a company, the better its profit quality is, that company size is related to profit quality, because large companies are considered to be able to generate high profits and high business continuity in improving the company's financial performance. Meanwhile, according to (Kurniawan & Aisah, 2020), if the level of investor trust in large companies is high, the higher the quality of their profits. However, a study conducted by (Gunawan et al., 2020) showed that the Current Ratio partially did not have a significant effect on profit growth. From the phenomena that have been explained above, the author wants to conduct further research on "The Effect of Leverage, Efficiency, and Liquidity on Profit Growth of the Sharia Insurance Company PT Sinarmas Multiartha for the Period 2013-2023".

## 2. RESEARCH METHODS

This study uses a quantitative method. The quantitative method is a research method that can be interpreted as a research method based on the philosophy of positivism, used to research a certain population or sample, data collection using research instruments, quantitative data analysis with the aim of testing the established hypothesis (Trisna & Guridno, 2021). To collect the data obtained in this study, the author used secondary data, Iskandar said that secondary data is data obtained through the collection or processing of data that is a study documentation in the form of a review of personal, official, institutional documents, references or regulations, literature, written reports and others that have relevance to the focus of the research problem (Bustani, 2018). In this case, the population that is the object of research is profit growth in the sharia insurance

company PT Sinarmas Multiartha for the period 2016-2023. Taking a sample using purposive sampling technique, namely profit growth at the insurance company PT Sinar Mas Multiartha, There are annual reports in the research period, namely 2016-2023, Financial reports that can be accessed through the official website during the research period. This research was conducted with the help of Evieus Software, in time series data analysis.

The following is the research framework developed by the researcher.

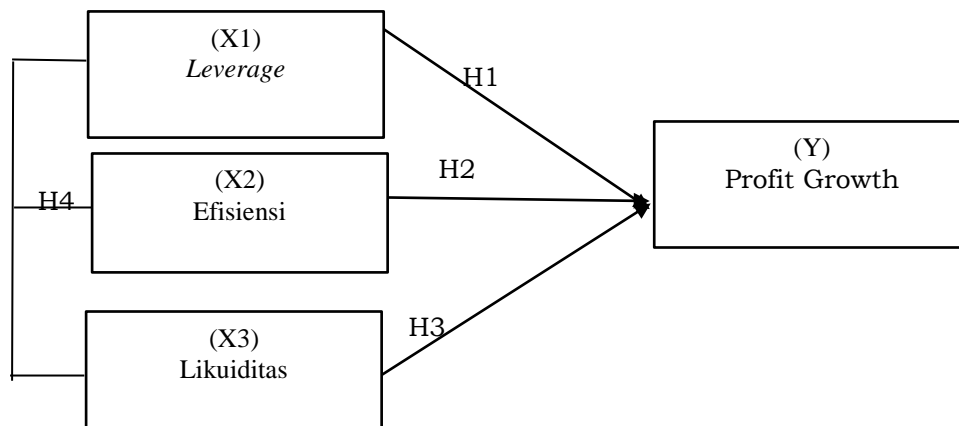


Figure 1. Framework

### 3. RESULTS AND DISCUSSION

Research on the influence of leverage, efficiency and liquidity on profit growth in sharia insurance companies, focusing on PT sinarmas multiartha. This study uses annual financial data from the company's audited financial statements for a certain period.

#### 3.1 Multicollinearity Test

Table 1 Multicollinearity Test Results

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	6.261036	1421.221	NA
X3	1.17E-10	6.727781	1.310476
X2	0.000620	1262.645	1.299762
X1	4.70E-11	10.41696	1.151821

It is known that the VIF value of the independent variable is  $< 10,000$ , so it is concluded that the assumption of the multicollinearity test has been met or has passed the multicollinearity test.

#### 3.2 Normality Test

If the sig value  $> 0.05$ , then the data is normally distributed.

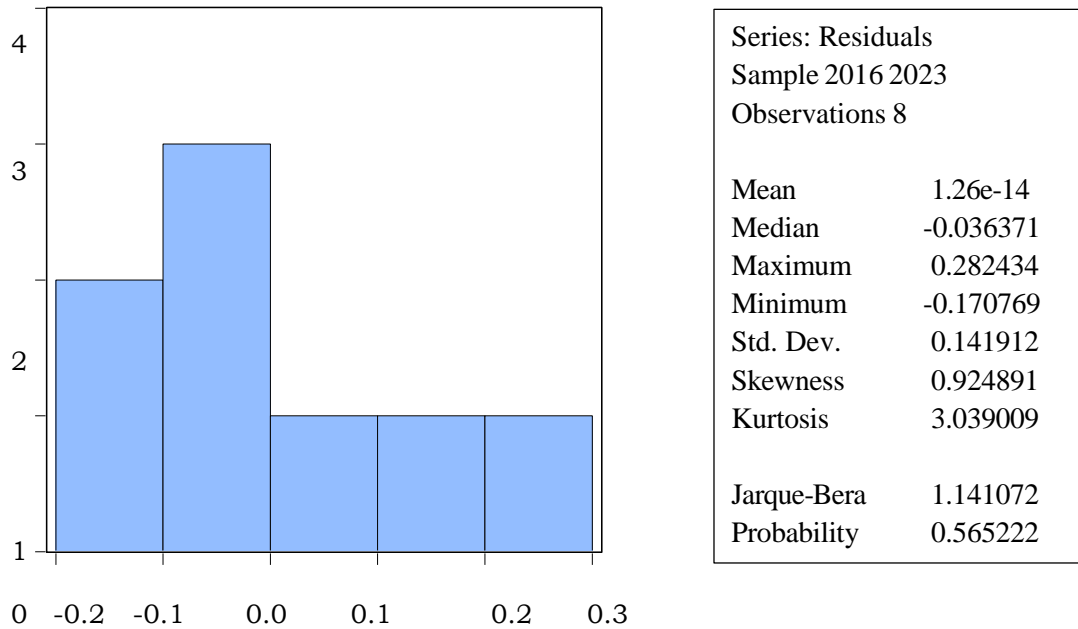


Figure 1 Normality Test Results

It is known that the Jarque-Bera probability value is  $0.565 > 0.05$ , so it is concluded that the data is normally distributed or the assumption of the data normality test is met.

### 3.3 Heteroscedasticity Test

Table 2 Results of the heteroscedasticity test

Heteroskedasticity Test: Glejser			
F-statistic	0.518997	Prob. F(3,4)	0.6916
Obs*R-squared	2.241488	Prob. Chi-Square(3)	0.5238
Scaled explained SS	1.200088	Prob. Chi-Square(3)	0.7530

It is known that the probability obs\* R-squared value is  $0.5238 > 0.05$ , so it can be concluded that the heteroscedasticity test assumption has been met or passed.

### 3.4 Autocorrelation Test

Table 3 autocorrelation test results

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	0.352998	Prob. F(2,2)	0.7391
Obs*R-squared	2.087204	Prob. Chi-Square(2)	0.3522

It is known that the prob.obs\*R-squared value is  $0.3522 > 0.05$ , so it can be concluded that the assumption of the autocorrelation test has been met.

### 3.5 Hypothesis Testing

#### a. T Test

Table 4 T Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	107.0168	2.502206	42.76896	0.0000
X3	-4.71E-05	1.08E-05	-4.352287	0.0121
X2	-1.045850	0.024900	-42.00225	0.0000
X1	-7.51E-05	6.86E-06	-10.95753	0.0004

The influence of independent variables on dependent variables partially is as follows: (a) The results of the t-test on the leverage variable (X1) obtained a calculated t value of 10.95753 > t table, which is 2.306004 and a sig. value of 0.0004 < 0.05, then H0 is rejected and Ha is accepted, meaning that the leverage variable has an effect on profit growth. (b) The results of the t-test on the efficiency variable (X2) obtained a calculated t value of 42.00225 > t table, which is 2.306004 and a sig. value of 0.0000 < 0.05, then H0 is rejected and Ha is accepted, meaning that the efficiency variable has an effect on profit growth. (d) The results of the t-test on the liquidity variable (X3) obtained a calculated t value of 4.352287 > t table, which is 2.306004 and a sig. value. 0.0121 < 0.05, then H0 is rejected and Ha is accepted, meaning that the liquidity variable has an effect on profit growth.

#### b. F Test

Table 5 F Test Results

R-squared	0.998034
Adjusted R-squared	0.996559
S.E. of regression	0.187732
Sum squared resid	0.140973
Log likelihood	4.803018
F-statistic	676.8356
Prob(F-statistic)	0.000007

The calculated f value is 676.8356 > f table which is 6.591382 and sig.0.0000 < 0.05, then H0 is rejected and Ha is accepted, meaning that the leverage, efficiency and liquidity variables together have an effect on profit growth.

#### c. Determination Coefficient Test

Table 6 Results of Determination Coefficient Test

R-squared	0.998034
Adjusted R-squared	0.996559
S.E. of regression	0.187732
Sum squared resid	0.140973
Log likelihood	4.803018
F-statistic	676.8356
Prob(F-statistic)	0.000007

The adjusted R squared value is 0.996559 or 99.6559%. The coefficient of determination value indicates that the independent variables consisting of leverage, efficiency and liquidity are able to explain the word growth variable by 99.6559%, while the remaining 0.3441% is explained by other variables not included in the research model.

### 3.6 Discussion

#### a. Debt to Equity Ratio and Profit Growth 2016-2023

According to Kasmir (Firmansyah & Maharani, 2021) leverage is a ratio used to measure the extent to which a company's assets are financed with debt. In this study, it is represented by the Debt to Equity Ratio (DER), which is the ratio used to assess debt

with equity. In other words, this ratio functions to find out every rupiah of equity that is used as collateral for internal debt.

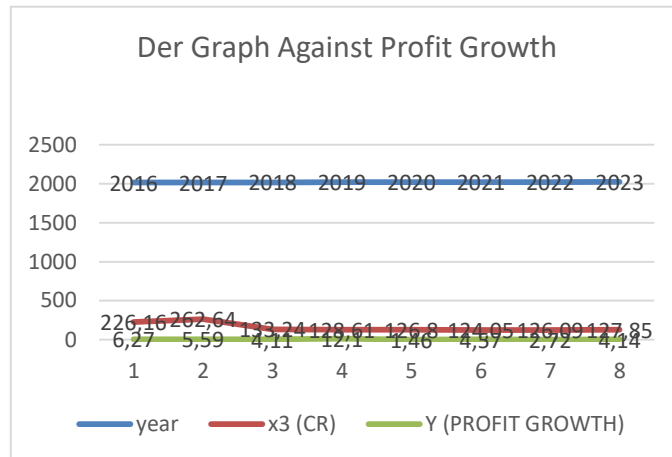


Figure 2 Debt to Equity Ratio and Profit Growth 2016-2023

In 2016, the company experienced stable profit growth despite high DER. In 2017, profit growth declined slightly, due to debt burden. Despite high DER, profit growth declined in 2018. In 2019, profit increased significantly, indicating that the company has succeeded in utilizing debt effectively to drive financial performance. In 2020, DER increased, but the company experienced a significant decline in profit. In 2021, it began to recover after a low decline in 2020. Profit growth remains low despite a slight decline in DER in 2022. In 2023, there was a slight recovery in profit growth.

b. Operating Costs Operating Income and Profit Growth 2016-2023

The results of the study show that efficiency has a positive and significant effect on the Profit Growth of the sharia insurance company PT sinarmas multiartha for the period 2016-2023. The ratio used is BOPO which considers operational costs with operational income.

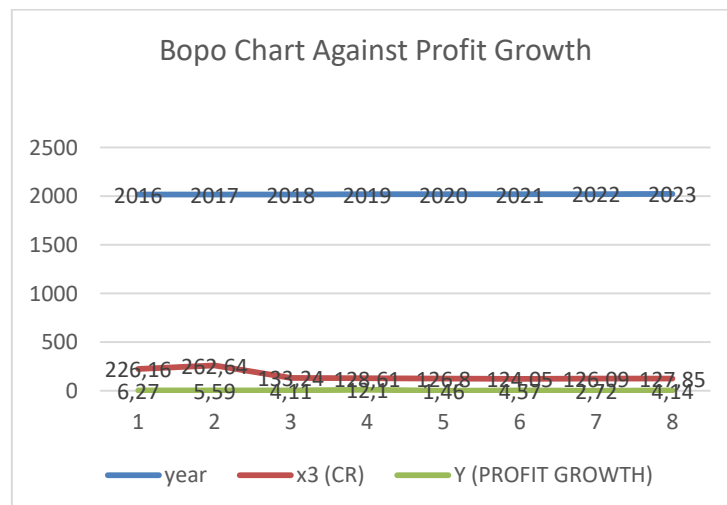


Figure 3 BOPO and Profit Growth 2016-2023

According to the results of the multiple linear regression test, the t-count value is 42.00225 through a sig level of  $0.000 < 0.05$ . The test results show that the BOPO variable has a significant effect on the profit growth variable. Namely,  $H_0$  is rejected or  $H_a$  is accepted, because  $t \text{ count } 42.00225 > t \text{ table } 2.306004$ . The conclusion obtained is that the BOPO variable with a partial method has a significant influence on the profit growth variable at the sharia insurance company PT Sinarmas Multiartha for the period 2016-2023. The research carried out is in line with the research (Bahri, 2018) which concluded that the BOPO variable with a partial method has a significant influence on profit growth at sharia general banks in 2015-2017.

#### c. Current ratio and profit growth 2016-2023

Current ratio is a ratio used to measure a company's ability to pay its short-term liabilities using its current assets. There is no absolute provision regarding what level of CR is considered good or must be maintained by a company because usually this CR level also depends on the type of business of each company, the easier it is for the company to pay its short-term debts, and the higher the CR indicates high profit growth. This means that the company has short-term debts that exceed its current assets, so that in meeting its obligations the company has difficulty in paying off its short-term debts.

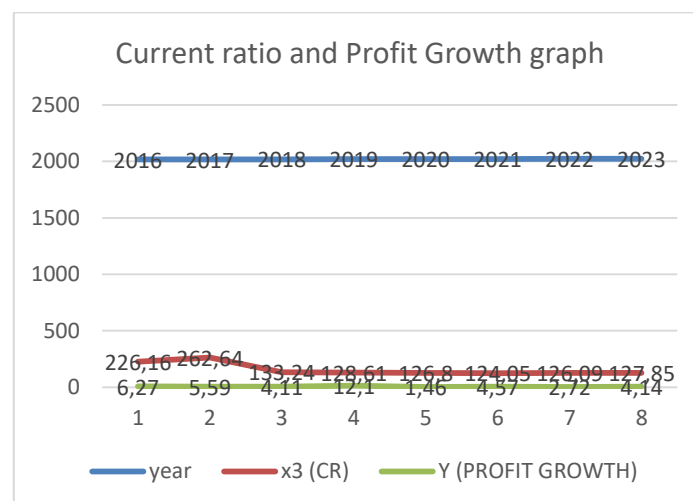


Figure 4 Current Ratio and Profit Growth 2016-2023

The Current Ratio shows the increasing ability of the company to pay off its current liabilities, so that it can minimize interest payments, which in turn can increase the amount of profit that can be obtained. In this study, liquidity is measured by the Current Ratio (CR). The results of this study are in line with previous studies by Yetty et al., (2018) and Mariam, (2018) in (Juliar & Wahyudi, 2023) which revealed that liquidity has a positive effect on profit growth.

#### d. Leverage, Efficiency and Liquidity on Profit Growth

Based on the results of the hypothesis test, it can be concluded that leverage, efficiency and liquidity simultaneously affect the profit growth of the sharia insurance company PT sinarmas multiartha for the period 2016-2023. This is evidenced by the calculated f value of  $676.8356 > f \text{ table}$  which is 6.591382 and  $\text{sig. } 0.0000 < 0.05$ , then  $H_0$  is rejected and  $H_a$  is accepted, meaning that the variables leverage, efficiency and liquidity together affect profit growth. Where the greater the liquidity ratio, the better the company's financial position and the repayment funds for bonds will run systematically.

With high liquidity will have an impact on the company's profits. The profits obtained are not only used for operational activities, but also as dividend payments and debt financing. In addition, leverage, efficiency and liquidity are one of the financial elements included in the bond rating assessment by Pefindo, namely in financial risk.

#### 4. CONCLUSION

The results of the study show that simultaneously leverage, efficiency, and liquidity have a significant effect on the profit growth of PT Sinarmas Multiartha as a sharia insurance company. This influence reflects that the combination of the right funding structure, high operational efficiency, and optimal liquidity management can affect the company's overall profit performance. Although partially liquidity does not show a significant influence, together these three variables form an important basis for managerial decision making to encourage sustainable profit growth. However, in this study there are several limitations in the research and testing process that can hinder the research results in accordance with the hypothesis carried out by the researcher, including: using 8 samples from 2016-2023, and the research variables only use leverage, efficiency and liquidity variables. Therefore, for further researchers, it is expected to expand the research object to include the number of variables, observation periods and other manufacturing companies.

#### REFERENCE

- Adha, H. M., & Sulasmiyati, S. (2017). *Pengaruh leverage, likuiditas, dan aktivitas terhadap pertumbuhan profitabilitas (studi pada perusahaan lq-45 yang terdaftar di Bursa Efek Indonesia (BEI) Tahun 2013-2015)*. Brawijaya University.
- ARIANTI, N. I. K. (2023). *PENGARUH MODAL KERJA, LIKUIDITAS, DAN LEVERAGETERHADAP PROFITABILITAS PERUSAHAAN MAKANAN DAN MINUMAN YANG TERDAFTAR DI BURSA EFEK INDONESIA TAHUN 2017-2020*. Universitas Mahasaraswati Denpasar.
- Bahri, M. B. (2018). *PENGARUH CAR, FDR DAN BOPO TERHADAP PERTUMBUHAN LABA BANK UMUM SYARIAH TAHUN 2015-2017 THE EFFECT OF CAR, FDR AND BOPO ON THE PROFIT OF SHARIA COMMERCIAL BANKS IN 2015-2017*.
- Blaszczynski, C., & Green, D. J. (2012). Effective strategies and activities for developing soft skills, part 1. *Journal of Applied Research for Business Instruction*, 10(1), 1.
- Bustani, S. (2018). Perlindungan Hak Komunal Masyarakat Adat Dalam Perspektif Kekayaan Intelektual Tradisional Di Era Globalisasi: Kenyataan Dan Harapan. *Jurnal Hukum PRIORIS*, 6(3), 304-325.
- Febriyanti, S., & Aini, N. (2022). Faktor-faktor yang mempengaruhi pertumbuhan laba pada Bank Umum Konvensional yang terdaftar di BEI periode tahun 2018-2020. *Fair Value: Jurnal Ilmiah Akuntansi Dan Keuangan*, 5(2), 946-957.
- Firmansyah, I., & Maharani, A. (2021). Pengaruh Current Ratio (Cr) Dan Debt To Equity Ratio (Der) Terhadap Harga Saham Pada Perusahaan Sektor Infrastruktur, Utilitas, Dan Transportasi Yang Terdaftar Di'Bei. *Land Journal*, 2(1), 11-22.
- Gunawan, J., Funny, F., Marcella, C., Evelyn, E., & Sitorus, J. S. (2020). Pengaruh CR (Current Ratio), DER (Debt to Equity Ratio), EPS (Earning Per Share) dan Financial Distress (Altman Score) Terhadap Harga Saham Pada Perusahaan Sektor Industri Dasar dan Kimia Yang Terdaftar Di Bursa Efek Indonesia. *Owner: Riset Dan Jurnal Akuntansi*, 4(1), 1-15.
- Hermanto, A., & Ibrahim, I. D. K. (2020). Analisis Pengaruh Return on Equity (ROE), Earning per Share (EPS), Debt to Equity Ratio (DER) dan Dividend Payout Ratio (DPR) terhadap Harga Saham pada Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia Periode 2018. *Target: Jurnal Manajemen Bisnis*, 2(2), 179-194.
- ILHAM, R. G. P. (n.d.). *ANALISIS PENGARUH KINERJA DAN EFISIENSI BANK TERHADAP PERTUMBUHAN LABA PADA PT. BANK SULSELBAR KANTOR PUSAT MAKASSAR*.
- Isnaeni, A. M. (2019). Standar Hukum Sistem Syariah Pada Lembaga Keuangan Bukan Bank Dalam Bentuk Asuransi Syariah. *Unizar Law Review (ULR)*, 2(2), 179-189.
- Juliar, F., & Wahyudi, I. (2023). Pengaruh Rasio Likuiditas, Solvabilitas dan Profitabilitas terhadap Pertumbuhan Laba Pada Perusahaan Pertambangan. *JlIP-Jurnal Ilmiah Ilmu Pendidikan*, 6(8), 5643-5651.

- Karimah, D. (2019). *Analisis Target Laba Dalam Memaksimalkan Laba Umkm Alvo Archery Kota Sukabumi*. Universitas Muhammadiyah Sukabumi.
- Kurniawan, E., & Aisah, S. N. (2020). Pengaruh Set Kesempatan Investasi, Konservatisme dan Pertumbuhan Laba Terhadap Kualitas Laba Pada Perusahaan Manufaktur di Indonesia. *AKRUAL: Jurnal Akuntansi Dan Keuangan*, 2(1), 55–72.
- Marwansyah, S., & Utami, A. N. (2017). Analisis hasil investasi, pendapatan premi, dan beban klaim terhadap laba perusahaan perasuransian di indonesia. *Jurnal Akuntansi, Ekonomi Dan Manajemen Bisnis*, 5(2), 213–221.
- MITASARI, D. D., & IRSYAD, M. (2023). *PENGARUH RASIO LEVERAGE, UKURAN PERUSAHAAN, RASIO BEBAN KLAIM, PREMIUM GROWTH, DAN RASIO LIKUIDITAS TERHADAP PROFITABILITAS (Studi Kasus pada Perusahaan Asuransi Syariah di Indonesia yang Terdaftar di OJK Periode 2018-2021)*. UIN Surakarta.
- Purwaningsih, E., & Safitri, I. (2022). Pengaruh profitabilitas, likuiditas, leverage, rasio arus kas dan ukuran perusahaan terhadap financial distress. *JAE (Jurnal Akuntansi Dan Ekonomi)*, 7(2), 147–156.
- Puspita, I., & Dewi, S. K. S. (2019). Pengaruh Profitabilitas, Risiko Bisnis, dan Tingkat Suku Bunga terhadap Struktur Modal. *E. Jurnal Manajemen*, 8(4), 2152–2179.
- Putri, Y., Fernando, N., & Annisa, S. (2025). *Ekonomi Manajerial: Teori Perusahaan Dan Konsep Laba*. Serasi Media Teknologi.
- Suherman, S. (2017). Faktor-Faktor Yang Mempengaruhi Cash Holdings Perusahaan Di Bursa Efek Indonesia. *Jurnal Manajemen*, 21(3), 336–349.
- Susilowati, Y., Aini, N., Poerwati, T., & Rahayuningsih, R. (2019). *Analisis kecukupan modal, efisiensi dan likuiditas terhadap profitabilitas*.
- Trisna, A., & Guridno, E. (2021). Pengaruh kompensasi, motivasi, dan lingkungan kerja terhadap kinerja karyawan PT. Saiba Cipta Selaras Kota Jakarta Selatan. *Oikonomia: Jurnal Manajemen*, 17(2), 127–140.
- Wariantio, P., & Rusiti, C. (2014). Pengaruh ukuran perusahaan, struktur modal, likuiditas dan investment opportunity set (IOS) terhadap kualitas laba pada perusahaan manufaktur yang terdaftar di BEI. *Modus*, 26(1), 19–32.
- Yateno, Y., & Sulistiani, W. S. (2017). Nilai ekonomis pemanfaatan onggok sebagai pakan olahan alternatif ternak bebek di metro lampung. *SINAR SANG SURYA: Jurnal Pusat Pengabdian Kepada Masyarakat*, 1(1), 1–13.
- Zulkarnaen, Z. (2018). Pengaruh Debt To Assets Ratio Terhadap Return On Asset Pada Perusahaan Asuransi Yang Terdaftar Di Bei Tahun 2010 –2015. *Warta Dharmawangsa*, 56.