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Does GDP Moderates Capital Structure, Working Capital, and Financial Constraints Effecting Firm Performance? Study Case on Indonesia's Manufacture Company

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ABSTRACT

In managing a company, reaching a high revenue is the most important goal. Indonesia's Gross Domestic Product (GDP) experiences rise throughout 2017 by covid-19 outbreak in 2020. In the same time, Indonesia's state income tax revenue also experiences the same condition which means, firms are having good performance from 2017 till by Covid-19 breakout in 2020. By analyzing firm's cash flow source, we will find out the way of managing cash flow to reach a better return. Start-up capital usually comes from debt or shareholders, while in making sure operational cash usually comes from receivable turnover and future cash flow depends on financial constraints This Research aims to find out if firm performance is effected by cash flow management that is measured by Debt Equity Ratio (DER), receivable turnover, and financial constraints. Research was done on industry sectors of Indonesia which contributes more than 20% of Indonesia's GDP since 2018.

Keywords: DER, Financial Constraints, Firm Performance, GDP, Receivable Turnover.

1. Introduction

A country's economy is often measured by Gross Domestic Product (GDP). Through the provided data by id.tradingeconomic.com, it is recorded that Indonesia's GDP started declining in January 2020, from 4,97 to -5,32 in July 2021. By August 2021, Indonesia's GDP reached 7,07, then experienced a decline to 3,51 in September but then slowly increased to 5,72 in September 2022. The table showing Indoensia's GDP is shown below:

Table 1. Indonesia's GDP from 2017 – 2021

Year	GDP (Billion Rupiah)
2017	9.912.928,10
2018	10.425.851,90
2019	10.949.155,40
2020	10.723.054,80
2021	11.118.868,50

Source: bps.go.id (2022)

Having a high profit is a goal that businessmen aim to reach. The importance of having high profit is to employ workers, increase productivity, increase income tax, and also improve economic growth (Vo, 2022). According to Widy (2022) Return on Equity (ROE) is one of a way used from lots of measurements to measure profits and the effectivity of a firm in using their equity to reach profit. There are internal and external factors affecting profits earned by a firm. Some of the influence on reaching high profit is promotion, low-cost supplier, improved employees's ability, and having a smooth cash flow. According to Lismana et al. (2021), Return on Asset (ROA) is used as the ratio to estimate the ability of the company to achieve profit through assets. As stated by Satoto et al. (2022), Return on Sales (ROS) can measure the profit made by company.

There are many ways a company can make sure its cash flow enhances its operational line. One of them is choosing the right capital structure. Curry dan Zul Fikri (2022) stated that choosing the right capital structure decides the sustainability of the company's operations. A combination of internal and external capital will create an optimal alternate capital structure that will benefit the company.

Cash flow plays an important role in a company's operation sustainability. Customers typically will choose credit payment when they aren't able to pay directly. According to Candy (2021), a firm has the priority to reach high performance and maximize its value to stakeholders. Investors will also measure their investment (Lina et al., 2022).

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This means having a healthy cash flow will be able to draw the attention of investors. Esther (2022) A good use of working capital can be seen by its receivable turnover, the higher the ratio shown by receivable turnover, the higher the use of working capital is needed, which will increase the risk of losing profit and eventually create a bad cash flow for the company.

To achieve smooth cash flow in the future, companies also have the option to invest their present cash to generate more cash in the future. Therefore, companies will set aside an amount of money for investment. The ability of funding to fulfill the desire to invest is called a financial constraint (Ahamed et al., 2022).

As stated by Badan Pusat Statistik (BPS) about the state's realized income tax, it was known that in 2018, the income tax received was Rp 749.977,00 billion. It then increased to Rp 772.265,70 billion in the year of 2019. Then in 2020, income tax decreased to Rp 594.033,33 billion then in 2021 increased to Rp 696.676,60 billion. Working capital funding for the industry sector shows that in 2018 was Rp 661.185,24 billion also keeps increasing in 2019 to Rp 684.244,88 billion and decreases in 2020 to Rp 627.391,01 billion. Then started to rise in 2021 to Rp 671.179,49 billion.

Table 2. Data on state's income tax and working capital funding in the industry sector in the year 2017 – 2021

YEAR	Income Tax (billion rupiah)	Working Capital Funding (billion rupiah)
2017	646.793,50	575.371,42
2018	749.977,00	661.185,24
2019	772.265,70	684.244,88
2020	594.033,33	627.391,01
2021	696.676,60	671.179,49

Source: bps.go.id

As seen from the data above, it seems that while states' income from income tax rises, funding activity also increases. According to the data shown by BPS, the industry sector has contributed to Indonesia's GDP which is up to more than 20% from 2018 to 2021.

Table 3. Percentage of the contribution made by the industry sector in Indonesia's GDP in 2018 – 2021

YEAR	Overall GDP (trillion rupiah)	Industry Sector's GDP (trillion rupiah)	Contribution Percentage
2018	10.425,85	2.193,37	21,04%
2019	10.949,16	2.276,67	20,79%
2020	10.723,10	2.209,92	20,61%
2021	11.118,87	2.284,82	20,55%

Source: bps.go.id

Businessman while working on their business will always go for high profit, to reach this goal, firm performance needs to be looked at (Ivone & Shellen, 2022). Ngatno et al. (2021) stated that firm performance can show the financial source and health of a company, ROA and ROE is one of a way to measure a firm's performance. ROA is used to measure how efficiently a company's resource (asset) is used to reach the company's profit (Esther, 2022). At the same time, ROE is usually used by investors to assess the company's profit through investments Oktapiani dan Rahmi (2021). Besides ROA and ROE, (ul ISLAM dan Mazhar IQBAL, 2022) and Satoto et al. (2022) use ROS as one of a firm performance measurement since ROS can measure the profitability of a company which could show a firm's performance.

Based on Widy (2022) research, a negative effect was concluded which has the same result as Shahzad et al. (2022). This research was done in the years 2015 to 2019, while research by Ngatno et al. (2021) and Arifin (2021) which is done excluding the year done by the first two researchers showed the result of positive. Research by Curry dan Zul Fikri (2022) which is moderated by GDP shows a negative result. At the same time, the results of Oktapiani dan Rahmi (2021) show a positive effect.

Research by Lismana et al. (2021) shows a negative effect of receivable turnover on firm performance. This research was done from 2017 to 2019 showing the same result as Siregar dan Mardiana (2022) which was done from 2015 to 2019. But the same research which was done in the same year with different sectors shows a positive effect. Research by Utami et al. (2021) on the textile sector and Satoto et al. (2022) researched manufacturing companies was done from 2017 to at least 2019. At the same time, Lismana et al. (2021) also Siregar dan Mardiana (2022) did the same research on mine and F&B sectors. Research done in the manufacturing sector also done by Almomani et al. (2021) showed positive results and research in the property and construction sector which was done by Tania et al. (2021) also resulted in positive.

Research by Ahamed et al. (2022) shows negative results. The same result is shown by Yang (2022). Research of Ede (2021) shows a positive effect which is the same as those (Patel & Guedes, 2022) with financial constraints acting as a moderating variable.

Through exposures done before, this research will be researching the effect of capital structure, receivable turnover, and financial constraints on firm performance. This research will also use GDP as a moderating variable which will show how a country's economic condition will affect the cash flow of the company and also what decision will a firm take for plans.

Indonesia's economic condition from 2017 continued to rise till 2019, and when the COVID-19 pandemic reached Indonesia in 2020, GDP dropped only 2,07% from 2019. Which means Indonesia's economy is controlled. This research is done to observe how a firm will decide the country's economy which is often being left out by business practice.

The variable used in this research is often used but isn't observed at the same time. By taking the chance of covid-19 pandemic which caused the

economy to fluctuate, we can easily observe the cash flow of the firm with newer data.

2. Research Method

This quantitative study uses data collected from the Indonesia Stock Exchange from 2018 to 2021. By using the purposive sampling method, there are about 41 out of 50 manufacturing company was used as research object. Below are the formulas used in this research. Firm performance could be measured by ROA, ROE, and ROS (ul ISLAM dan Mazhar IQBAL, 2022).

This research consists of data from many companies which is done in different timelines. To make sure measurement can be done, the panel regression method is used with the help of Eviews software. The regression panel uses three methods of analysis of data which are; Pooled Least Square (PLS), Fixed Effect Model (FEM), and Random Effect Model (REM). The methods are chosen according to the data's tendency.

3. Results and Discussion

Table 4. Descriptive Statistic

VARIABLE	N	Mean	Maximum	Minimum	Std. Dev.
DER	164	8,52168	84,16403	0,09527	14,61862
AVERAGE COLLECTION PERIOD	164	80,75047	287,86540	0,01634	50,54491
FINANCIAL CONSTRAINTS	164	-1,73917	23,13477	-66,03490	7,27189
M1	164	0,26530	4,35489	-1,45641	0,68603
M2	164	-0,07037	1,19706	-3,41684	0,37373
M3	164	2,30292	13,43321	-4,99663	3,15801
ECONOMIC GROWTH	164	0,02955	0,05174	-0,02065	0,02964
ROA	164	0,03298	0,51431	-0,67921	0,11441
ROE	164	0,06466	1,93914	-1,83996	0,28021
ROS	164	-0,49665	42,10193	-83,52659	8,21426

Source: author's calculation results (2023)

Through the descriptive statistics shown above, almost all of the dependent variables are more companies that are under average numbers. While the dependent variable shows the result that more companies are higher than average.

As it was explained before, the regression panel method has three kinds of analysis methods. To choose the best method for analyzing data, we will need to do some tests to find out which are; the chow test, hausman test, and Lagrange multiplier test.

Chow test is used to compare the use of PLS and FEM. To find out which method suits the most, a cross-section chi-square score will show a probability. If the number shown is under 0,05, FEM would be the method used to analyze data. If it shows higher than 0,05, then PLS is the most suitable method.

Table 5. Chow Test Result

Variable	Effect Test	Prob.	conclusion
ROA	Cross-section Chi-square	0.0000	Fixed Effect Model
ROE	Cross-section Chi-square	0.7001	Pooled Least Square
ROS	Cross-section Chi-square	0.0000	Fixed Effect Model

Source: author's calculation results (2023)

After taking the chow test, the Hausman test and Lagrange multiplier test will be the next step. If the probability score shows under 0,05, the next step is the Hausman test, otherwise Lagrange multiplier test will be taken.

Hausman test is used to compare between FEM and REM. When the Chow test result shows FEM as the most suitable method, we will then do the Hausman test. When cross-section random in the Hausman test shows lower than 0,05, the analysis method used for analyzing will be FEM, otherwise, REM would be the most suitable method.

Table 6. Hausman Test Result

Variable	Effect Test	Prob.	conclusion
ROA	Cross-section random	0.3794	Random Effect Model
ROS	Cross-section random	0.5916	Random Effect Model

Source: author's calculation results (2023)

The Lagrange multiplier method is used after the Chow test. When the result given by the Chow test is PLS, then the Lagrange multiplier test will be used. This test is to compare REM and PLS methods. When the breach-pagan result is below 0,05, REM is the most suitable method, otherwise, PLS is the most suitable method.

Table 7. Lagrange Multiplier Test Result

Variable	Effect Test	Prob.	conclusion
ROE	Cross-section Breusch-Pagan	0.0917	Pooled Least Square

Source: author's calculation results (2023)

Table 8. ROA Regression Panel Result

Variable	Coefficient	Prob.	Result	Description
C	0,06857	0.0034		
DER	-0,00032	0,7596	Insignificant	Unproven
Average Collection Period	-0,00049	0,0334	Significant Negative	Unproven
Financial Constraints	0,01467	0,0286	Significant Positive	Proven
M1	0,00811	0,6477	Insignificant	Unproven
M2	-0,27792	0,0277	Significant Negative	Unproven
M3	0,00444	0,1411	Insignificant	Unproven

Source: author's calculation results (2023)

Table 9. ROE Regression Panel Result

Variable	Coefficient	Prob.	Result	Description
C	0,11748	0,0116		
DER	0,00275	0,2378	Insignificant	Unproven
Average Collection Period	-0,00113	0,0218	Significant Negative	Unproven
Financial Constraints	-0,00979	0,5628	Insignificant	Unproven
M1	-0,03655	0,4796	Insignificant	Unproven
M2	0,22877	0,487	Insignificant	Unproven
M3	0,01031	0,2365	Insignificant	Unproven

Source: author's calculation results (2023)

Table 10. ROS Regression Panel Result

Variable	Coefficient	Prob.	Result	Description
C	-2,83565	0,097	Insignificant	Unproven
DER	0,05508	0,4787	Insignificant	Unproven
Average Collection Period	0,02116	0,2088	Insignificant	Unproven
Financial Constraints	-0,10492	0,8326	Insignificant	Unproven
M1	-1,2133	0,3628	Insignificant	Unproven
M2	2,43228	0,795	Insignificant	Unproven
M3	0,20483	0,3639	Insignificant	Unproven

Source: author's calculation results (2023)

Based on the result shown above, DER doesn't have a significant effect on firm performance. This is caused by the high variety of data. The result shown in this research is the same as Geresem and Michael (2021). Also through the research of Ngatno et al. (2021), it is known that long-term debt will have an insignificant effect on firm performance because the use of this debt is not focused on the company's operations which resulted in an unmaximized firm performance. Through the data collected, most of the companies researched have a higher long-term debt compared to current debt.

The average collection period only affects ROE negatively. While the effect on ROA and ROS are insignificant. Based on the research by Putri et al. (2022) it was found that the average collection period does not affect firm performance since high credit sales will not directly affect receivable collection so there are no connections between smooth collection and firm performance. The result affecting ROE is opposite to the research by Sari et al. (2022) which is done on only one company that doesn't have enough variety of data to illustrate the condition of other companies. When the collection period is higher, the collection made is slower which will result in the delay of return to shareholders.

Financial constraints have a significant positive effect on ROA while an insignificant effect was shown on ROA and ROS. This shows the opposite result of the research made by Ahamed et al. (2022) on ROA. But this result is shown according to the region of the company. Research made by Ede (2021) concludes that poor management of cash will result in hardship for a company to reach maximum profit. The opposite result is shown by research made by Yang (2022). This happens because the wrong measurement is used which doesn't describe the investment condition of a company. The data used in this research are the investment in selling assets which results in connections of ROA with financial constraints.

GDP moderates only financial constraints affecting ROA. This is because investment made by the company is on assets. GDP moderates by weakening the effect of financial constraints on ROA because when a state's economy grows, this condition happens because foreign countries will cut off imports. Thus, creating a rise in domestic product sales.

4. Conclusion

As we can see from the result of this research, even in the condition of GDP, state's income tax and bank funding rises at the same time doesn't mean that capital structure selection has a significant effect on firm performance, while good cash management is the key for a good return in a company. Choosing the right investment will also affect how the return on investment is given since different investment instruments will bring different results on investment return. GDP doesn't affect the return a company receives from its operation. This is because a country's economy is affected by the instrument and amount of investment also imports. In this research, the sample range used is counted as small. Besides it, this research is only done in one sector thus this research result

doesn't represent all kinds of business in Indonesia.

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