



Original Article

Examining the Effect of Cash Conversion Cycle on Profitability in PERTAMINA Balikpapan Hospital: Moderating Role of Total Assets

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Abstract: This study analyzes the effect of company size and cash conversion cycle on profitability with firm size as a moderating variable. The cash conversion cycle is the independent variable with company size using total assets as a moderating variable, while the dependent variable is profitability using the net profit margin ratio. The data were obtained from company financial reports taken from interim reports for 2013 - 2022. The sample was determined using purposive sampling, and a sample of 120 was obtained. The analytical method used in this research was panel data regression with the previous moderate regression analysis. Has passed the classical assumption test the hypothesis proposed in this research is that the cash conversion cycle influences profitability by using firm size as a moderating variable. The research results show that net profit margin with company size as a moderating variable has a significant effect. In addition, it was found that In total assets moderated this relationship. Companies with a larger total asset size show that cash relationship conversion cycles are more significant to profitability than companies with smaller total assets.

Keywords: Cash Conversion Cycle, Profitability, Company Size



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1. Introduction

Many companies are trying to grow into large companies in the increasingly growing business world. The bigger the company, the higher the competition the company will face. Company growth has a direct impact on company profits. Companies need sufficient working capital to run and maintain business productivity in operational activities. One important aspect of the availability of working capital is cash. One of the ways the company's cash outflow is used is to purchase inventory that will be produced to produce goods and then sold either in cash or on credit. Sales on credit will not give rise to cash at the time of sale but will give rise to accounts receivable estimates. Trade receivables will turn into cash if the trade receivables have been paid at maturity. The time required to collect from the sale of working capital is called the cash conversion cycle. The cash conversion cycle includes the inventory conversion period, which determines how long it takes to convert raw materials into finished goods to sell. The average receipt period calculates

the length of time the company gets cash from credit sales and the length of time the company defers debt. A good company if the company can carry out its management well. Good management and achievement of results will influence the continuity of the company. Competition by producing quality goods that are in demand by the wider community will increase profits for the company. Also, to maintain the company's smooth operation and survive in business competition, the company must manage its funds well.

Sometimes businesses experience financial difficulties that disrupt their operational activities. Companies that are unable to manage their liquidity due to an orientation that only pursues profits without trying to pay their obligations, to maximize various existing factors, require asset management, cost management and debt management, the longer the company takes to carry out the production process, the longer the greater the consequences that must be borne by the company both for maintenance and production costs. The company's ability to fulfill its financial obligations that must be met is called liquidity, companies that can do so in a liquid state where the company will be able to fulfill its obligations on time while companies that are unable to fulfill their obligations are called illiquid.

The liquidity ratio is a capability used to measure how liquid a financial condition is when cash flow is decreasing, liquidity will decrease, whereas if cash flow is increasing, liquidity will also increase (Avisiena et al., 2022). In this case the author is interested in writing about influence Cash Conversion Cycle on profitability with in total assets as a moderating variable, it is hoped that in this writing it will have results that are in line with expectations, namely that there will be quite a significant influence cash conversion cycle on the profitability of the PERTAMINA Balikpapan hospital, especially after the COVID-19 pandemic. Therefore, hospitals and health institutions must understand the importance of the Cash Conversion Cycle in managing their liquidity and profitability post-COVID-19. Monitor and manage Cash Conversion Cycle will efficiently help hospitals cope with economic and business changes resulting from the pandemic and improve their competitiveness and financial performance.

Previous research stated that cash flow has a positive influence on liquidity. Suppose a company's level of liquidity decreases. In that case, the company can be classified as illiquid, and this does not rule out the possibility that one day the company will experience business disruption, ultimately leading to bankruptcy. Liquidity uses measurement benchmarks with variables of Cash Ratio which is from the company's previous financial reports the cycle of acquiring and converting non-cash assets into cash viz Cash Conversion cycle. Profitability also has an important role in maintaining the company's survival for a long period of time because profitability illustrates whether the company has good or bad prospects for the future. One of the things used is financial ratios, which will be used as analysts in analyzing the company's financial condition, from operating results to income. A company's liquidity can be seen in the size of the assets that are most easily converted into cash, namely including receivables, inventory and payables, which in this case is the length of time used to change or convert current / non-cash assets become cash, which is used as an indicator of the influence of capital to calculate the company's ability to convert cash owned into cash back which affects the liquidity of manufacturing companies. Cash Conversion Cycle enough to strengthen the company's short-term funding decisions to meet its cash needs, whether by postponing debt payments or speeding up payments, or speeding up the process of collecting its receivables, where Cash Conversion Cycle used as a measuring tool used to measure the company's ability to collect cash obtained from the company's operational results, which will ultimately obtain the amount of funds needed to be saved in current assets.

Component of Cash Conversion Cycle is the first is Days sales inventory, the ratio that measures the average time needed to convert inventory into sales, which is the main factor for companies to manage inventory. Monitoring inventory regularly and effectively can reduce the risk of increasing costs, improving cash flow, and reducing the risk of expired and lost items. Another component in Cash Conversion Cycle is that Days Payable Outstanding is a financial ratio that calculates the average time it takes a company to pay its obligations to other companies by comparing its trade payable obligations, cost of goods sold, and days before the bill payment is due. Shin & Soenen (1998) stated that the view of the relationship Cash conversion cycle no longer damages a company's profitability. The shorter the time the company requires, the more optimal management is in managing the company's working capital. The shorter the time of Cash conversion cycle means less and less effective company investment in working capital. According to Telly & Ansori (2017), previous research on variables of Cash Conversion Cycle including Cash Conversion Cycle influence Profitability. Meanwhile, according to Putri & Pangestuti (2018) that cash conversion cycle Also significant negative effect on profitability. This research examines the effect of the cash conversion cycle on profitability with total assets as a moderating variable. This research hypothesizes that the cash conversion cycle significantly influences profitability, and that total assets will strengthen the relationship between the cash conversion cycle and profitability.

Known average EBITDA Margin for ten years, from 2013 to 2022, has not shown the expected target figures. It increases yearly but does not meet the company's budget target, except in 2020 and 2021 where EBITDA Margin experienced a quite significant increase, especially in 2021, reaching 139.7%. Average EBITDA Margin tends to be below RKAP from time to time. This illustrates that conditions are not good compared to the planned target. Besides that, one of management's concerns is the outstanding achievement days inventory, which is still too high, which results in problems in the process of meeting supply needs, especially medicines, which are one of the main needs of hospitals. Based on research that has been done explained above, there are differences in the results of research conducted by

previous researchers and the results of company performance. Thus, this study examines the effect of days inventory outstanding, days sales outstanding, and days payable outstanding on profitability. Next, the moderating effect of company size in the relationship between inventory outstanding, days sales outstanding, days payable outstanding, and profitability.

2. Literature Review

2.1. Underlying Theory

Financial reports are an important element in assessing a company's overall performance, consisting of a balance sheet, profit and loss report, cash flow report and capital changes report. The main financial reports are used as material for company decision making. Financial Report Analysis is the relationship between the values in the financial statements and other values that have meaning/explain the direction of change in a company's operational events. The value results in financial statements will have little meaning when viewed alone. By analyzing financial reports, it will be easier to interpret them. Financial reporting results include balance reports, profit, and reports of changes presented in various ways, such as note reports, cash flows, and other reports which are an inseparable part of the integral financial statements (Ardila et al., 2019). Financial reports are the result of the accounting recording process which is used as a tool to connect with interested parties regarding the company's financial condition and operating results (Djarwanto, 1999). The purpose of financial reports is to provide information about the company's financial position, performance and cash flow which the majority of users can utilize to make economic decisions and as a form of management accountability for using and managing existing resources. Entrusted to them based on research, the cash conversion cycle has a significant influence on profitability, and total assets will strengthen the relationship between the cash conversion cycle and profitability. This is because companies with larger total assets have more resources to invest in the business, so they can improve the company's operational efficiency and the quality of the company's receivables.

2.1.1. Days Inventory Outstanding and Profitability

Days Sales Inventory is one indicator that measures the average length of time required by a company to turn inventory into sales results. The faster the time required for inventory turnover, the greater profits can be gained by managing cash flow for other purposes. If inventory turnover tends to be low, which means inventory is not too high, the company's chances of achieving profitability are greater. Research conducted by Fauzan & Laksito (2015) show Days Sales of Inventory has no significant effect on Return on Asset. Influence Days Inventory Outstanding profitability can be an important factor in company financial analysis. The longer inventory is in a company, the greater the costs associated with storing and maintaining inventory. This can affect operational costs and ultimately affect the company's net profit. Use of variables in Total Asset as a moderator variable in the relationship between Days Inventory Outstanding and profitability intends to test whether the size of the company's total assets can moderate or influence the relationship between Days Inventory Outstanding and profitability. In this context, a variable in Total Asset acts as a controller who can change or clarify the relationship between Days Inventory Outstanding and profitability.

2.1.2. Days Sales Outstanding and Profitability

Connection days sales outstanding and profitability is that days sales outstanding the higher one will produce profitability which takes longer because the company needs more time to collect payments and convert receivables which will eventually become cash. On the contrary, days sales outstanding which will quickly produce profit. where companies can collect cash in shorter days and companies are able to convert receivables into cash more quickly. Based on the results of previous research conducted by Andriyanti (2014), number of days inventory has a significant negative influence on gross operating profitability.

2.1.3. Days Payable Outstanding and Profitability

Days payable outstanding and cash conversion cycle interconnected so days payable outstanding the higher one will produce cash conversion cycle shorter periods because the company can hold its cash for a longer period of time before paying its suppliers. On the contrary, days payable outstanding the lower one will produce cash conversion cycle which takes longer because the company must pay its suppliers more quickly and therefore has less cash to convert inventory and receivables into cash. From the results of previous research conducted by Andriyanti (2014), days payable was outstanding, with a positive and insignificant effect. days inventory outstanding to profitability with total assets as moderating.

2.1.4. Days Sales Outstanding to Profitability with Total assets as moderating.

Days sales outstanding is an indicator that measures the average period required by a company from the start of credit sales until cash receipts for those sales occur. Receivables occur because the company carries out credit transactions with its customers to increase its sales volume. Getting lower days sales outstanding obtained, the company will grow faster in converting receivables into cash, so that companies can be more effective and efficient in managing their receivables. Based on research conducted by Fauzan & Laksito (2015), days sales outstanding significantly influence return on asset. days sales outstanding profitability can be moderated by company size, represented by total assets. A company's total assets can reflect the company's operational scale and risk level the effect of days payable outstanding on profitability with total assets as moderating.

2.1.5. Days Payable Outstanding to Profitability with Total assets as moderating.

Days payable outstanding It is also an indicator used to measure the average time period from when a company purchases merchandise until it makes payment for the goods or the time it takes for the company to fulfill its obligations or debts. Trade payables are related to the purchase of merchandise because most companies make purchases on credit. The company will choose suppliers where payment terms can be made longer so that available cash funds can be used for other operational activities. Based on research conducted by Fauzan & Laksito (2015), Days Payable Outstanding significantly influences Return on Asset. Influence Days Payable Outstanding Profitability can also be influenced by the company's total assets as a moderating variable.

2.2. Research Hypothesis

A hypothesis is a temporary answer to a problem that is still presumptive or conjectural. As for the research hypothesis from the framework above, it can be explained using the following research model:

H1 : Days inventory outstanding influence on profitability.

H2 : Days sales outstanding influence on profitability.

H3 : Days payable outstanding influence on cycle profitability.

H4 : Days inventory outstanding influence on profitability with FS Total assets as moderating.

H5 : Days sales outstanding influence on profitability with FS Total assets as moderating.

H6 : Days payable outstanding influence on profitability with FS Total assets as moderating.

3. Materials and Methods

3.1. Design of the Study

The data analysis used in this research is Descriptive Statistical Analysis, which is used to analyze data by describing or describing the data that has been collected as the results without intending to make general conclusions or generalizations This analysis only takes the form of an accumulation of basic data obtained in the form of descriptions meaning that it does not look for or explain each relationship and then tests hypotheses, makes predictions or draws conclusions.

3.2. Definition of Operational Variables

The operational definition in this research uses two variables, namely the dependent variable and the independent variable.

Table 1. Variables, Dimensions, Indicators and Measurement Scales

Variable	Operational definition	Measurement	Scale
(X1) Days Inventory Outstanding	Neraca Days of Inventory Outstanding The inventory conversion period is the length of time it takes to convert raw materials into ready-to-sell goods and then sell those goods	$PART = \frac{\text{Inventory} \times 365}{\text{Cost of Goods Sold}}$	Ratio
(X2) Days Sales Outstanding	Neraca Days sales outstanding The receivables collection period is the length of time for the payment of receivables from buyers to become cash	$DSO = \frac{\text{Account Receivable} \times 365}{\text{Sales}}$	Ratio

Variable	Operational definition	Measurement	Scale
(X3) Days Payable Outstanding	Neraca Days payables outstanding the debt deferment period is the time needed to carry out the process of paying off obligations.	$DPO = (\text{Account Payable} \times 365) / \text{Cost of Goods Sold}$	Ratio
Firm Size	Neraca Working Capital Turnover The company's working capital adequacy position	Total Asset	Mark
Profitability	Annual report Net Profit Margin profitability ratio used to measure a business's ability to generate profits from sales	$(EAT / \text{Sales}) \times 100\%$	Ratio

3.3. Data source

The research used samples from the financial reports of PERTAMINA Balikpapan Hospital for 120 months from 2013 - 2022 until the COVID-19 pandemic period, namely the interim Financial Report 2013 – 2022. This was taken because it is hoped that it can describe the conditions of the influence of the research variables over time. The COVID-19 pandemic at PERTAMINA Hospital Balikpapan. By using this sample, it is hoped that the results of this research will be more relevant for understanding the condition of the company related to the variables above until now at the COVID-19 pandemic at PERTAMINA Hospital Balikpapan. The number of samples used was 120 (one hundred and twenty) consisting of monthly reports for eight years.

3.4. Data Collection Techniques

In this research the author used one of the existing techniques, namely engineering Purposive sampling, namely a sampling technique by providing an assessment of the sample among the selected population. The assessment is taken if it meets certain criteria in accordance with the research topic being conducted. According to Turner (2020), purposive sampling will be used when the researcher already has a target with characteristics that are appropriate to the research. The data used is in the form of secondary data sources obtained from records or other pre-existing sources from documented techniques by accessing documents related to the annual report (Annual Report).

3.5. Data analysis technique

In general, data analysis techniques are processes or methods carried out with the aim of obtaining information that is accurate and useful for other parties who need it. This research uses multiple linear regressions with one variable moderating which is done by testing assumptions using Moderated Regression Analysis (MRA) with the SPSS 21 program. MRA is used to test the relationship between independent and dependent variables in which there are factors that strengthen or weaken, namely moderating variables. The mathematical equation in the model is as follows:

$$\text{Model equation: } Y_1 = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4Z + b_5X_1Z + b_6X_2Z + b_7X_3Z + e$$

Information:

AND = Profitability (Net Profit Margin)

WITH = in Total Asset

X1 = Days Inventory Outstanding

X2 = Days Sales Outstanding

X3 = Days Payable Outstanding

a = Constant

b1 – b6 = Regression coefficient

e = Bullying error (disturbance error).

4. Results and Discussion

4.1. Descriptive Analysis

Data description is the process of identifying and describing the characteristics and properties of a data set, to describe the data in the form of tables or graphs to produce a picture of the distribution of data that has been processed so that the data is easy to understand. The amount of data used for this research was 120 (one hundred and twenty) which came from monthly financial reports, with independent variables consisting of Days Inventory Outstanding, Days Sales Outstanding, and Days Payable Outstanding, by using In Total Asset as a moderating variable and dependent variable that is profitability. In converting units of days and percent from the data obtained as initial data processing, this research uses Natural Logarithms which functions to change the distance distribution of data that is not normal or skewed become more normal and symmetrical. Besides that, Natural logarithm increases model accuracy because it can help meet classic regression assumptions, such as normality, linearity and homoscedasticity assumptions.

Table 2. Descriptive Statistics

Descriptive Statistics			
	Mean	Std. Deviation	N
Net Profit Margin	4.8284	.58640	120
Days Inventory Outstanding	2.8143	.70445	120
Days Sales Outstanding	3.9383	.51515	120
Days Payable Outstanding	3.8093	.40201	120
In Total Asset	.4969	.18803	120

Table 2 captures that Net Profit Margin has an average value of 4.8284 with a data spread of 0.58640. Days Inventory Outstanding has an average value of 2.8143 with a spread of data obtained of 0.70445. Days Sales Outstanding has an average value of 3.9383 with a spread of data obtained of 0.51515. Days Payable Outstanding has an average value of 3.8093 with a data spread of 0.40201 and in Total Asset has an average value of 0.4969 with a spread of data obtained of 0.18803.

4.2. Classic assumption test

4.2.1. Test of Autocorrelation

The purpose of the autocorrelation test is to see whether in the linear regression model there a correlation between confounding errors in period t and confounding errors in period is $t-1$. The autocorrelation test is used to assess whether there is a relationship or correlation between sequential values in a time series or grouped data. This test is also often referred to as the serial correlation test. Autocorrelation occurs when values in a time series tend to correlate with earlier values in the series. This can cause inaccurate results in statistical analysis, especially in regression models or time series analysis. Several methods of testing autocorrelation are the Graphic Method, Durbin-Watson Test and Ljung-Box Test. In this case the author uses a test autocorrelation with Durbin Watson.

Table 3. Result of Autocorrelation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.515 ^a	.266	.240	.51115	1.690

a. Predictors: (Constant), In Total Asset, Days Sales Outstanding, Days Payable Outstanding, Days Inventory Outstanding

b. Dependent Variable: Net Profit Margin

Table 3 displays the Durbin-Watson value of 1.716, which means that the Durbin-Watson value is between 1.6339 and 1.7715, it can be concluded that there is no autocorrelation in this study.

4.2.2. Normality test

The normality test is a statistical procedure used to assess whether data follows a normal or Gaussian distribution. In a normal distribution, data tends to be distributed symmetrically around its middle value (mean) and follows a bell pattern or normal curve. Several test methods include Graphic Method, Test of Kolmogorov-Smirnov (K-S) and Anderson-Darling Test. In this case the author uses a normality test using one- sample Kolmogorov Smirnov because it can be used to test whether the observed data fits a certain distribution, such as the normal distribution, exponential distribution, or other distributions. This test aims to test whether the data fits a certain distribution.

Table 4. Normality Test

		Unstandardized Residual
N		62
Normal Parameters ^{a,b}	Mean	.4426
	Std. Deviation	.21257
Most Extreme Differences	Absolute	.074
	Positive	.074
	Negative	-.055
Kolmogorov-Smirnov Z		.586
Asymp. Sig. (2-tailed)		.882

a. Test distribution is Normal.

b. Calculated from data.

Table 4 indicates that the magnitude of the value of Asymp. Sig. (2-tailed) with one-Sample Kolmogorov-Smirnov is 0.882 greater than 0.05, which means that the data distribution is normal.

4.2.3. Multicollinearity Test

Multicollinearity test is a test carried out to ascertain whether in a regression model there is intercorrelation or collinearity between independent variables. Multicollinearity is there a perfect linear relationship between some or all of the variables that explain the regression model, whether in a regression model there is a correlation between independent variables. This helps maintain the accuracy and validity of regression results, by eliminating variables affected by multicollinearity and helps prevent over fitting. If multicollinearity occurs, then a variable that is strongly correlated with other variables in the model will have unreliable and unstable predictive power. To find out whether the regression model has a correlation with the independent variables, a multicollinearity test is carried out using value criteria tolerance >0.100 and VIF <10.00 , then these variables can be said to be not orthogonal (independent variables whose correlation value between independent variables is equal to zero). The results of the multicollinearity test can be seen in the following table:

Table 5. Multicollinearity Test

Model		Collinearity Statistics	
		Tolerance	VIF
1	Days Inventory Outstanding	.847	1.180
	Days Sales Outstanding	.902	1.108
	Days Payable Outstanding	.927	1.079
	In Total Asset	.873	1.146

a. Dependent Variable: Net Profit Margin

Table 5 concludes that with criteria tolerance > 0.100 and VIF < 10.00 that Days Inventory Outstanding $0.847 > 0.100$ and $1.180 < 10.00$, so there are no symptoms of multicollinearity. Days Sales Outstanding $0.902 > 0.100$ and $1.108 < 10.00$ means there are no symptoms of multicollinearity Days Payable Outstanding $0.927 > 0.100$ and $1.079 < 10.00$, so there are no symptoms of multicollinearity Ln Total Asset $0.873 > 0.100$ and $1.146 < 10.00$, so there are no symptoms of multicollinearity.

4.2.4. Heteroscedasticity Test

Heteroscedasticity testing using Glejser is one of the methods used to detect the presence of heteroscedasticity in the regression model. This method involves special regression analysis of independent variables with the dependent variable and other independent variables as control variables. Requirements for heteroscedasticity test criteria using glazes is that the significance value must be greater than 0.05, so it can be concluded that there are no symptoms of heteroscedasticity.

Table 6. Test of Heteroscedasticity

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.170	.717		5.817	.000
	Days Inventory Outstanding	-.081	.072	-.097	-1.116	.267
	Days Sales Outstanding	-.010	.096	-.009	-.102	.919
	Days Payable Outstanding	.043	.121	.030	.356	.722
	In Total Asset	1.528	.267	.490	5.728	.000

a. Dependent Variable: Net Profit Margin

Table 6 found that Variable of Days Inventory Outstanding value with significance of 0.267. Variable of Days Sales Outstanding value with significance of 0.919 Variable of Days Payable Outstanding value with significance of 0.722 Variable Ln Total Asset value with significance of 0,000 from the results of the data above that variable of Days Inventory Outstanding and Days Sales Outstanding and Days Payable Outstanding have no symptoms heteroscedasticity. Thus, we can conclude that there is no problem heteroscedasticity, so that a good and ideal regression model can be fulfilled and can be carried out in analysis regression with the t test and f test, which can be further explained below.

4.2.5. Regression Analysis

Testing the hypothesis in this research is by using a multiple regression analysis model (multiple regression analysis), to help determine how much influence the independent variable has on the dependent variable, help to determine how much influence the moderating variable has on the relationship between the independent and dependent variables, help to determine whether the moderating variable strengthens or weakens the relationship between the independent and dependent variables, helps to determine The suitability of the regression model with existing data is used to predict the value of the dependent variable based on the value of the independent variable and moderating variable, namely by correlation, coefficient of determination, F test and T test. Regression analysis is used to determine the extent of the relationship between the independent variable and the dependent variable.

4.2.6. Regression equation

Table 7 shows the results of the regression analysis and the α value of 22.807 is the influence of other influencing variables of Net Profit Margin (Y) is outside the variable of Days Inventory Outstanding (X1), Days Sales Outstanding (X2), Days Payable Outstanding (X3), in Total Asset (WITH), in Total Asset*Days Inventory Outstanding (ZX1), in Total Asset*Days Sales Outstanding (ZX2) Dan in Total Asset*Days Payable Outstanding (ZX3). Regression coefficient value Days Inventory Outstanding (X1) amounting to -0.734 with a contribution value of -0.882 which is assumed if the contribution value is from Days Sales Outstanding (X2), Days Payable Outstanding (X3), in Total Asset(Z), in Total Asset*Days Inventory Outstanding (ZX1), in Total Asset*Days Sales Outstanding (ZX2) and in Total Asset*Days Payable Outstanding (ZX3) equals zero, then Days Inventory Outstanding (X1) contributes 0.822 to Net Profit Margin (Y). Regression coefficient value Days Sales Outstanding (X2) of -0.402 with a contribution value of -0.353 can be assumed if the contribution value of Days Inventory Outstanding (X1), Days Payable Outstanding (X3), in Total Asset (WITH), in Total Asset*Days Inventory Outstanding (ZX1), in Total Asset*Days Sales Outstanding (ZX2) Dan in Total Asset*Days Payable Outstanding (ZX3) equals zero, then Days Sales Outstanding (X2) provides a contribution of -0.353 to Net Profit Margin (Y). Regression coefficient value Days Payable Outstanding (X3) of -3.736 with a contribution value of -2.562 can be assumed if the contribution value of Days Inventory Outstanding (X1), Days Sales Outstanding (X2), in Total Asset (WITH), in Total Asset*Days Inventory Outstanding (ZX1), in Total Asset*Days Sales Outstanding (ZX2) Dan in Total Asset*Days Payable Outstanding (ZX3) equals zero, then Days Payable Outstanding (X3) contributed -2,562 to Net Profit Margin (Y).

Regression coefficient value in Total Asset (Z) amounting to -31,063 with a contribution value of -9,960 can be assumed if the contribution value is from Days Inventory Outstanding (X1), Days sales Outstanding (X3), Days Payable Outstanding (X3), in Total Asset*Days Inventory Outstanding (ZX1), in Total Asset*Days Sales Outstanding (ZX2) Dan in Total Asset*Days Payable Outstanding (ZX3) equals zero, then in Total Asset (Z) contributed -9,960 to Net Profit Margin (Y). Regression coefficient value in Total Asset*Days Inventory Outstanding(ZX1) of 1.552 with a contribution value of 1.706 can be assumed if the contribution value of Days Inventory Outstanding(X1), Days sales Outstanding(X3), Days Payable Outstanding(X3), in Total Asset(Z), in Total Asset*Days Sales Outstanding(ZX2) Dan in Total Asset*Days Payable Outstanding(ZX3) equals zero, then in Total Asset*Days Inventory Outstanding(ZX1) contributed 1,706 to net Profit Margin(Y). Regression coefficient value in Total Asset*Days Sales Outstanding (ZX2) of 1.366 with a contribution value of 1.805 can be assumed if the contribution value of Days Inventory Outstanding (X1), Days sales Outstanding (X3), Days Payable Outstanding (X3), in Total Asset (Z), in Total Asset*Days Inventory Outstanding (ZX1) Dan in Total Asset*Days Payable Outstanding (ZX3) equals zero, then in Total Asset*Days Sales Outstanding (ZX2) contributed 1,706 to Net Profit Margin (Y). Regression coefficient value in Total Asset*Days Payable Outstanding(ZX3) of 5.616 with a contribution value of 6.976 can be assumed if the contribution value of Days Inventory Outstanding(X1), Days sales Outstanding(X3), Days Payable Outstanding(X3), in Total Asset(Z), in Total Asset*Days Inventory Outstanding(ZX1) Dan in Total Asset*Days Sales Outstanding(ZX3) equals zero, then in Total Asset*Days Payable Outstanding(ZX3) contributed 1,706 to Net Profit Margin(Y).

Table 7. Coefficient Regression 1

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	22.807	5.737		3.976	.000
	Days Inventory Outstanding	-.734	.346	-.882	-2.120	.036
	Days Sales Outstanding	-.402	.184	-.353	-2.181	.031
	Days Payable Outstanding	-3.736	1.446	-2.562	-2.584	.011
	In Total Asset	-31.063	8.975	-9.960	-3.461	.001
	In Total Asset*Days Inventory Outstanding	1.552	.677	1.706	2.291	.024
	In Total Asset*Days Sales Outstanding	1.366	.581	1.805	2.350	.021
	In Total Asset*Days Payable Outstanding	5.616	2.142	6.976	2.622	.010

a. Dependent Variable: Net Profit Margin

4.2.7. Simultaneous testing (F-test)

The F test is a statistical testing method used to compare several population averages simultaneously (simultaneously) and to see the influence of all independent variables together on the dependent variable in linear regression. The F test is carried out to determine whether the independent variables together (simultaneously) influence the dependent variable. The F test is also used to determine the method's accuracy. The results of the test from the F test are the F value, which can be compared with the F table value to determine whether the hypothesis is accepted or rejected, which is used to test the truth or falsity of the hypothesis, which states that between two average samples are taken randomly from the population in question. There is no significant difference. The analysis results obtained are as follows:

Table 8. ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14.785	7	2.112	9.052	.000 ^b
	Residual	26.135	112	.233		
	Total	40.920	119			

a. Dependent Variable: Net Profit Margin

b. Predictors: (Constant), In Total Asset*Days Payable Outstanding, Days Payable Outstanding, Days Sales Outstanding, Days Inventory Outstanding, In Total Asset*Days Sales Outstanding, In Total Asset*Days Inventory Outstanding, In Total Asset

Table 8 shows that the significance value (Sig.) in the F test is 9.052, which is greater than the F table value of 8.55 and the Sig value. 0.000 if the result is smaller than 0.05, then the hypothesis is accepted, meaning that the variable of Days Inventory Outstanding, Days Sales Outstanding, Days Payable Outstanding, in Total Asset, in Total Asset *Days Inventory Outstanding, in Total Asset *Days Sales Outstanding Dan in Total Asset *Days Payable Outstanding has a significant effect on the variables of Net Profit Margin.

4.2.8. Partial Testing (t-test)

Table 9. Coefficients

		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	22.807	5.737		3.976	.000
	Days Inventory Outstanding	-.734	.346	-.882	-2.120	.036
	Days Sales Outstanding	-.402	.184	-.353	-2.181	.031
	Days Payable Outstanding	-3.736	1.446	-2.562	-2.584	.011
	In Total Asset	-31.063	8.975	-9.960	-3.461	.001
	In Total Asset*Days Inventory Outstanding	1.552	.677	1.706	2.291	.024
	In Total Asset*Days Sales Outstanding	1.366	.581	1.805	2.350	.021
	In Total Asset*Days Payable Outstanding	5.616	2.142	6.976	2.622	.010

a. Dependent Variable: Net Profit Margin

Table 9 captures the influence of days inventory outstanding on net profit margin (H1). The results of the days inventory outstanding were calculated; the t value was -2.120, and the sig value was 0.036; then the hypothesis is accepted, meaning the variable of days inventory outstanding, there is a significant negative influence on return on asset influence of days sales outstanding to net profit margin (H2). Test results on variables of days sales outstanding obtained a calculated t value of -2.181 and a sig value. 0.031, then the hypothesis is accepted, meaning the variable of days sales outstanding has a significant negative influence on net profit margin influence of days payable outstanding to net profit margin (H3). Test results on variables of days payable outstanding obtained a calculated t value of -2.584 and a sig value. 0.011, then the hypothesis is accepted, meaning the variable of days payable outstanding has a significant negative influence on the net profit margin.

Influence in Total Asset to Net Profit Margin (H3). Test results on variables of Days Payable Outstanding The calculated t value was -3.461, and the sig value was 0.001. The hypothesis is accepted, meaning it is a variable in Total Asset. There is a significant negative influence on the net profit margin in total asset*days inventory outstanding (H4). The total asset*days inventory outstanding result was 2.292 and a sig value of 0.024. The hypothesis is accepted, meaning that, as a variable in total asset*days inventory outstanding, there is a significant positive influence on net profit margin in total asset*days sales outstanding (H5). Test results on Total Asset *Days Sales Outstanding variables obtained a calculated t value of 2,350 and a sig value. 0.021, then the hypothesis is accepted, which means that the variable in total asset *days sales outstanding has a significant positive influence on the net profit margin in total asset *days payable outstanding (H5). Test results on variables in Total Asset *Days Payable Outstanding The calculated t value was 2.622, and the sig value was 0.010; the hypothesis is accepted, meaning the variable in total asset *days payable outstanding significantly influences the net profit margin.

4.2.9. coefficient of determination test

The coefficient of determination calculates the variation explained by each variable in the regression. This means that the variations explained at the beginning are only caused by influential variables. The higher the coefficient of determination value, the more accurate the model used coefficient of determination (R²) Which requires the coefficient of determination value to be between zero and one Mark Adjusted R Square small means that the ability of the independent variables to explain variations in the dependent variable is limited. Meanwhile, a value close to one means

that the independent variables can provide almost all the information needed to predict variations in the dependent variables. The Adjusted R Square value determines the determination value.

Table 10. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.601 ^a	.361	.321	.48306	1.716

a. Predictors: (Constant), In Total Asset*Days Payable Outstanding, Days Payable Outstanding, Days Sales Outstanding, Days Inventory Outstanding, In Total Asset*Days Sales Outstanding, In Total Asset*Days Inventory Outstanding, In Total Asset

b. Dependent Variable: Net Profit Margin

Table 10 shows the result of the coefficient of determination (Adjusted R Square) and found that result of 0.321 or the equivalent of 32.1%. This shows that the independent variable's ability to explain the dependent variable's variance is 0.321, or the equivalent of 32.1%, which shows the level of influence on profitability. In comparison, other variables or factors explain the remaining 67.9%.

4.3. Discussion

4.3.1. Days Inventory Outstanding and Profitability

This study found days inventory outstanding to net profit margin), the calculated t value was -2.120, and the sig value was obtained. 0.036, then the hypothesis is accepted, meaning it is a variable of days inventory outstanding, with a significant negative influence on return on asset. This indicates that by managing inventory purchasing patterns, you can influence the cash turnover of the PERTAMINA Balikpapan hospital by accelerating inventory turnover and by not piling up goods on a large scale it will speed up the sales process and reduce the risk of costs due to damage to goods. Poor inventory management will result in fatal problems with working capital management if PERTAMINA Balikpapan Hospital does not control inventory. This will allow risks to occur, including the longer the inventory is stored, the higher the storage costs the hospital must bear. If supplies are not managed properly or there are leaks in management, this can lead to shortages due to worker error and supplies that are essential for medical services. If the PERTAMINA Balikpapan Hospital cannot provide the proper supervision and care required due to inadequate supplies, this could have a negative impact on the hospital's image and profitability. Days Inventory Outstanding high levels may indicate that the hospital has large inventories and is often unavailable with suppliers. If a company cannot manage inventory well and with additional or excess burdens, these expenses will greatly affect the level of profitability of a company. This is in line with research (Aljaaidi & Bagais, 2020), which shows that outstanding inventory influences the company.

4.3.2. Days Sales Outstanding and Profitability

This study found that days payable outstanding significantly negatively affect the return on assets. This indicates that making maximum sales by speeding up the sales process will speed up the revenue process, affecting PERTAMINA Balikpapan Hospital's cash turnover. This is in line with Sari et al. (2017), who state that days sales outstanding negatively correlate to corporate profitability, where the lower period of account receivable collection will increase corporate profitability.

4.3.3. Days Payable Outstanding and Profitability

This study indicates that days payable outstanding, has a significant negative effect on return on asset. This indicates that by managing the pattern of debt payments, the process of providing goods is not hampered which will later help the sales process which can ultimately influence the company's cash turnover. This is in line with research (Sari et al., 2017) state days payable outstanding has positive correlation and not significant towards operating profit return on assets. It is important to understand that influence days payable outstanding hospital profitability can vary depending on various factors, including debt repayment policies, relationships with suppliers, and financial management efficiency. However, keep in mind that management days payable outstanding must remain balanced with the hospital's operational needs and risk management strategy. Days payable outstanding that is too high or low can impact the hospital's operational sustainability and credibility in the eyes of suppliers and creditors.

4.3.4. Days Inventory Outstanding and Profitability through in Total Assets as Moderating

This study found Total Asset*Days Inventory Outstanding The calculated t value was 2.291 and the sig value was obtained. 0.024, then the hypothesis is accepted, meaning there is a significant positive influence on Return On Asset with total assets as variable moderating, this indicates that whether or not you regulate the purchase of inventory will have an influence Net Profit Margin This company is in line with research (Aljaaidi & Bagais, 2020).

4.3.5. Days Sales Outstanding on Profitability through In Total Assets as Moderating

This study found that days sales outstanding with total assets as moderating variable significantly affect net profit margin. It is because by mobilizing all the company's capabilities, there is an increase in net profit margin. The company influences days payable outstanding on profitability through In total assets as moderating. This means that the variable of days payable outstanding with total assets as variable moderating has a significant positive effect on return on asset. This indicates that managing inventory purchasing patterns can influence a company's net profit margin, even if it isn't significant. Moderating variables is one type of variable in research that influences the strength and direction of the relationship between the dependent and independent variables. Moderating variables can strengthen or weaken the relationship between variables, clarify the relationship between variables, increase the validity and accuracy of research results, identify factors that influence the relationship between variables and provide more complete and comprehensive information about the phenomenon under study.

5. Conclusions

This study concludes that a variable of Days Inventory Outstanding partially significantly influences the profitability (Net Profit Margin) PERTAMINA Balikpapan Hospital. This is because the number of inventory days will decrease and impact profitability due to the speed of inventory turnover. Variable of Days Sales Outstanding partially significantly influences profitability (Net Profit Margin) PERTAMINA Balikpapan Hospital. This is because the fewer receivables days will encourage the company to manage its cash to increase profitability. Variable of Days Payable Outstanding partially has a significant influence on profitability (Net Profit Margin) PERTAMINA Balikpapan Hospital, in this case delaying the payment process will provide fresh funds for other things but delaying the payment process will result in reduced creditors' trust in PERTAMINA Balikpapan Hospital. Variable in Total Assets*Days Inventory Outstanding partially significantly influences profitability (Net Profit Margin) PERTAMINA Balikpapan Hospital. Like a variable of Days Inventory Outstanding which showed significant results, with moderated use in Total Assets, then the PERTAMINA Balikpapan hospital has more power to maximize its inventory turnover, this is possible if the asset value of the PERTAMINA Balikpapan hospital is large. Variable In Total Assets*Days Sales Outstanding partially significantly influences profitability (Net Profit Margin) PERTAMINA Balikpapan Hospital. Like a variable of Days Sales Outstanding which showed significant results, with moderated use In Total Assets, then the PERTAMINA Balikpapan hospital has more power to make its sales high and the repayment process for its receivables is also low, this is possible if the asset value of the PERTAMINA Balikpapan hospital uses its assets to influence its consumers. Variable in Total Assets*Days Payable Outstanding partially significantly influences profitability (Net Profit Margin) PERTAMINA Balikpapan Hospital. Like a variable of Days Payable Outstanding which showed significant results, with moderated use in Total Assets, then PERTAMINA Balikpapan hospital has more power to influence its creditors by using its good name they has, this is possible if the asset value of the PERTAMINA Balikpapan hospital uses its assets to increase trust in its creditors With added variables in total asset as a moderating variable influencing achievement profitability.

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References

- Aljaaidi, K., & Bagais, O. A. (2020). Days inventory outstanding and firm performance: Empirical investigation from manufacturers. *Accounting*, 6(6), 1111–1116. <https://doi.org/10.5267/j.ac.2020.7.007>
- Andriyanti, L. (2014). *Pengaruh Number Of Days Account Receivable, Number Of Days Account Payable, Number Of Days Inventory, Dan Cash Conversion Cycle Terhadap Profitabilitas Perusahaan Wholesale And Retail Trade Yang Terdaftar Di Bei Periode 2009-2011* (pp. 1–103). Universitas Negeri Jakarta.
- Ardila, I., Zurriah, R., & Suryani, Y. (2019). Preparation of Financial Statements Based on Financial Accounting Standards for Micro, Small and Medium Entities. *International Journal of Accounting & Finance in Asia Pasific*, 2(3), 1–6. <https://doi.org/10.32535/ijafap.v2i3.584>
- Avisiena, H., Nugroho, M. N., & Harjawati, T. (2022). Analisis Rasio sebagai Alat Ukur Kinerja Keuangan: Di Rumah Sakit “X” Jakarta Utara. *Perspektif*, 1(5), 518–524.
- Djarwanto, P. (1999). Pokok-pokok Analisa Keuangan. In *Yogyakarta: Liberty*.
- Fauzan, M., & Laksito, H. (2015). Pengaruh pengelolaan Modal Kerja (siklus konversi kas) terhadap Profitabilitas perusahaan (ROA). *Diponegoro Journal of Accounting*, 4(3), 1–8.
- Putri, S. N. O., & Pangestuti, I. R. D. (2018). Payment Period Terhadap Profitabilitas Perusahaan Dengan Current Ratio Dan Sales Growth sebagai variabel kontrol (Studi pada Perusahaan Manufaktur yang terdaftar di BEI periode 2013-2016). *Diponegoro Journal of Management*, 7(4), 708–716.
- Sari, L. K., Achسانی, N. A., & Sartono, B. (2017). Pemodelan Volatilitas Return Saham: Studi Kasus Pasar Saham Asia. *Jurnal Ekonomi Dan Pembangunan Indonesia*, 18(1), 35–52. <https://doi.org/10.21002/jepi.v18i1.717>
- Shin, H. H., & Soenen, L. (1998). Efficiency of working capital management and corporate strategy. *Financial Practice and Education*, Fall-Winter, 8(3), 37–45.
- Telly, B. R., & Ansori, M. (2017). Pengaruh ukuran dan cash conversion cycle terhadap profitabilitas perusahaan. *Journal of Applied Managerial Accounting*, 1(2), 179–189. <https://doi.org/10.30871/jama.v1i2.505>
- Turner, D. P. (2020). Sampling Methods in Research Design. *Headache: The Journal of Head and Face Pain*, 60(1), 8–12. <https://doi.org/10.1111/head.13707>