

## **OPTIMISING CASH CONVERSION CYCLE USING ACCOUNT RECEIVABLE MANAGEMENT AS RESPONSE TO THE IMPACT OF THE COVID-19 PANDEMIC (CASE STUDY: PT ABC)**

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### **Abstract**

PT ABC is the largest ground handling company in Indonesia. PT ABC is one of the companies in the aviation industry that has been affected by the covid-19 pandemic. PT ABC is currently experiencing problems in the cash conversion cycle which has an impact on the company's working capital. This problem had started before the Covid-19 pandemic and was exacerbated by the pandemic. The average collection period required by PT ABC during the 2017 – 2021 period is 96 days, while similar companies in the same industry only need 61 days. Therefore, this study will focus on optimizing the receivables collection period and analysing the Cash Conversion Cycle by creating a simulation for companies with the method of tightening credit standards and giving cash discounts. Based on the research conducted, the authors found that giving price discounts is the most appropriate way to optimize working capital accompanied by the application of risk management.

**Keywords:** average collection period, cash conversion cycle, working capital, risk management

### **Introduction**

The Covid-19 pandemic that occurred in 2019 greatly affected the economies of countries around the world, including Indonesia. The Covid-19 virus is very easily transmitted through droplets, so the government issued rules for limiting community activities to reduce contact between humans. As a result of these regulations, the transportation industry experienced a drastic decline.

PT ABC as part of the transportation industry, specifically supporting flights, has been greatly affected by the Covid-19 pandemic. Travel restrictions have resulted in airlines experiencing a decline in production which also has an impact on PT ABC. The following is the number of flights handled by PT ABC for the 2017-2021 period:

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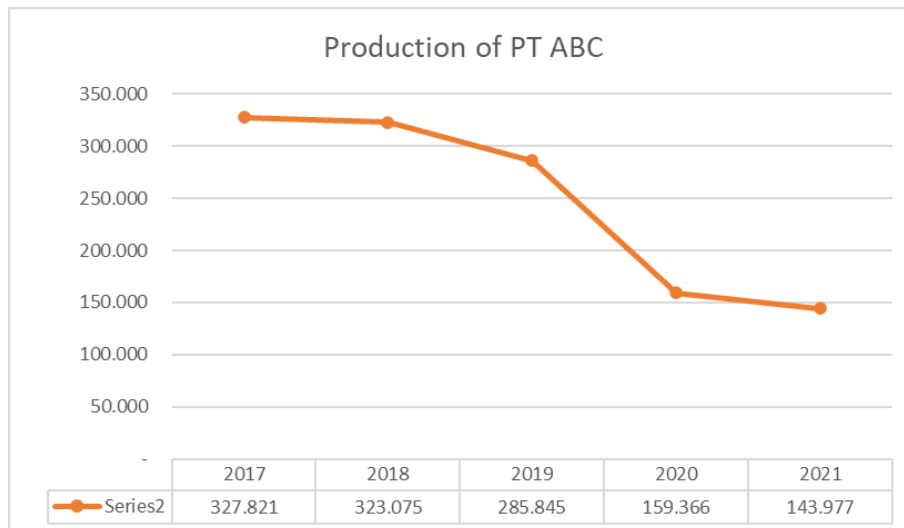


Figure 1 Production of PT ABC

Source : Archives of PT ABC

If you look at the graph above, PT ABC's production experienced a drastic decline from 2019 to 2020 and continued until 2021. The result of the decline in production was a decrease in the company's revenue. In addition, another impact is that airlines also delay bill payments, which causes PT ABC's trade receivables to increase. The increase in trade receivables will have an impact on the company's Cash Conversion Cycle to be longer (Rizky & Mayasari, 2018). When compared to similar companies in the same industry, namely PT XYZ, PT ABC's Average Collection Period is still above PT XYZ and tends to increase while ACP PT XYZ from year to year tends to be stable. This indicates that there are problems in managing accounts receivable at PT ABC. The following is an ACP comparison chart between PT ABC and PT XYZ.

PT ABC is a joint-venture company that was established on January 26, 1998 by three State-Owned Enterprises, namely PT G, PT A1 and PT A2 (McReynolds, 2015). The Company is engaged in the business of ground handling services and other business activities that support the aviation business at the airport. Our company values are important to us. We strongly believe that with excellent teamwork, team spirit and a commitment to always provide the best solutions, PT ABC and our customers can achieve success together. PT G initially carried out ground handling by themselves. However, given the need for professional services and the demand for optimum results without neglecting security, safety, reliability, and timeliness, PT G decided to handover ground handling activities to other parties so as to focus on its airline operations. This is the origins of the founding of PT ABC. As of November 21st, 2019, PT ABC's shareholders consist of PT A2 (46,62%), PT G (45,62%) and PT A1 (7,76%). This company has 40 branches spread from Aceh to Merauke.

PT ABC's vision is To be a Leading Strategic Partner of the Aviation Industry in Ground Handling and its Related Services (Filbeck & Krueger, 2005). Meanwhile, PT ABC's mission is To Provide Reliable Ground Handling and Related Services in

Creating Added Value for Customers and Other Stakeholders (Wheelen, Hunger, Hoffman, & Bamford, 2017).

The main business of PT ABC is as a provider of ground handling services for airlines. Over time, PT ABC's business continues to grow and currently has a business portfolio outside of ground handling services such as cargo warehouse providers, air cargo shipping agents, aircraft passenger assistance services, learning centres, and flight clearance.

The problem that PT ABC is currently facing is the high Cash Conversion Cycle (CCC) when compared to other companies in the same industry. The following is a graph of PT ABC's Cash Conversion Cycle compared to PT XYZ for the 2017-2021 period:

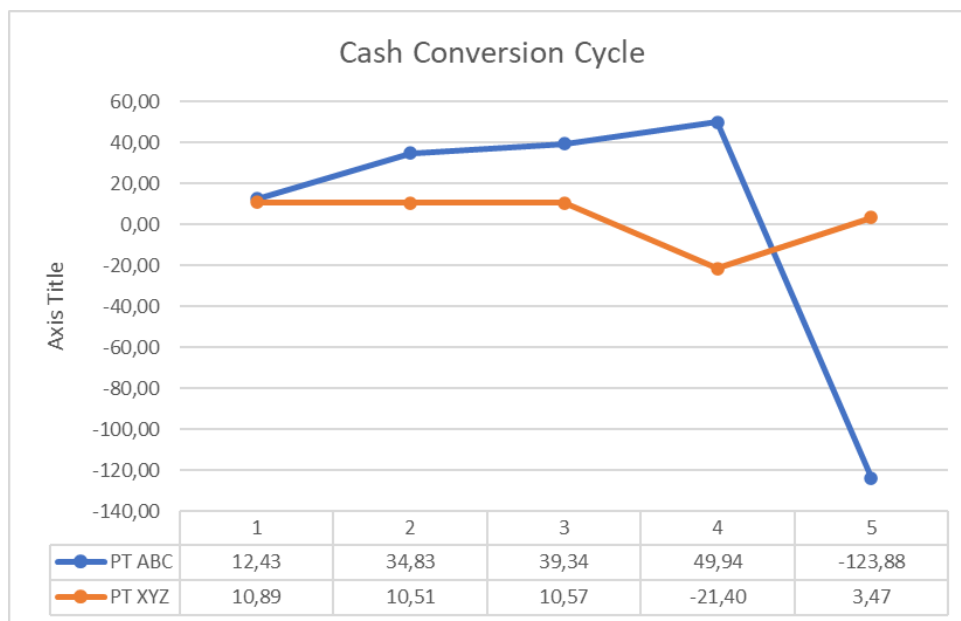


Figure 2 Cash Conversion Cycle PT ABC and PT XYZ  
Source : Data Analysis

Based on the graph above, it can be seen that PT ABC's Cash Conversion Cycle (CCC) is higher than PT XYZ (Dutta, 2013). This indicates that working capital management in PT ABC is less efficient than in other companies in the same industry. Although in 2021 the value of PT ABC's Cash Conversion Cycle (CCC) is lower than PT XYZ, this does not mean that Gapura's working capital management is better (Baidh, 2013). PT ABC's Cash Conversion Cycle (CCC) in 2021 is -124 days due to the provision for receivables in 2021 of Rp. 15.259.906.943 of the total receivables of Rp. 20.416.239.147, this causes current assets to be smaller than current liabilities and has a negative impact on the company's profitability (Sunday, 2011).

The following is a comparison of the profitability ratios of PT ABC and PT XYZ for the period 2017-2021 using the net profit margin ratio:

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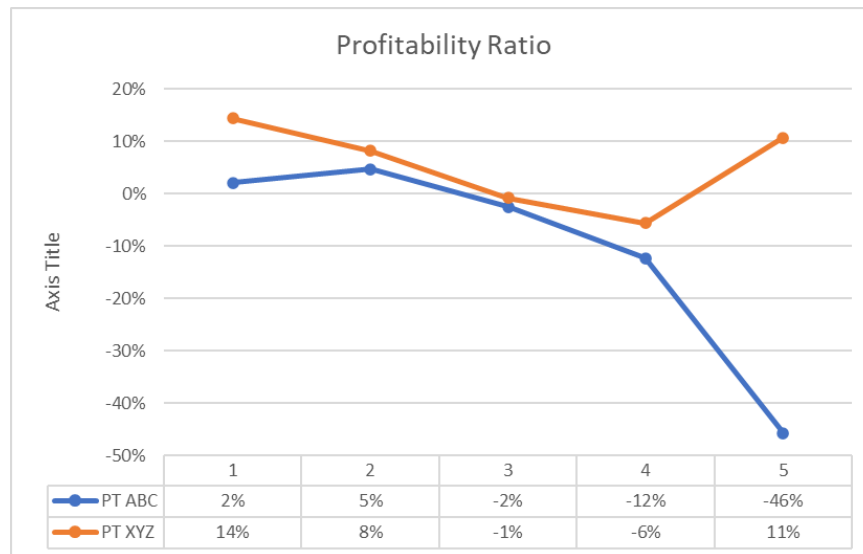


Figure 3 Profitability Ratio PT ABC and PT XYZ

Source : Data Analysis

The table above also shows that PT ABC's profitability is lower than PT XYZ. According to (Rizky & Mayasari, 2018), a negative or lower cash conversion cycle influence positively the firm's profitability by having the ability to finance the cash required for the daily operations activity. Inversely, if the firm generates a high cash conversion cycle which means having a longer period to finance the cash required will decrease the profitability of the firm (Devina, 2019).

Based on the above phenomenon, PT ABC must have a business strategy so that it can be superior to its competitors and can continue to operate and compete in the future. With fast, precise and effective business strategy planning, it is expected that the company can overcome the problems it faces and can continue to operate, compete and achieve its goals. Analyzing a strategy and a situation aims to consider both the company's internal situation and the external environment, which directly affect opportunities and strategic choices. Industry and competition analysis emphasizes the influence of the external environment while the analysis of the company's situation is based on the influence of the internal environment.

Maintaining receivables, inventory, and payables is the objective of working capital (Gitman & Zutter, 2012). The business could be successful if the management can manage receivables, inventory, and payables effectively (Filbeck & Krueger, 2005).

Risk is the possibility of negative consequences occurring, as well as the uncertainty of future outcomes. The risk management process is discussed, beginning with monitoring the problem, then collecting the risks discovered in the company, then measuring the risk against the risk list, and then entering the evaluation stage to determine whether managing, accepting, mitigating, or refusing risk, and finally formulating a method for risk monitoring (Olsson, 2002)

Research objectives Provide recommendations to management regarding receivable management strategies that can optimize the cash conversion cycle. Perform risk management on the best accounts receivable management

## **Research methods**

### **1. Data Collection**

For this research, the authors used primary and secondary data. Primary data will be collected from interviews using semi-structured with key persons at PT ABC, especially those related to treasury units. Secondary data will be collected from archives, company financial reports, company websites, and other documents. These sources will be used to validate data extracted from interviews, especially when the information is conflicting.

### **2. Data Analysis Method**

The collect data will be processed and analysed using financial planning. Financial planning is an important aspect of the firm for determining whether your business idea is viable. It will demonstrate the costs and what is needed to finance them. In addition, financial planning provides road maps for guiding, coordinating, and controlling the firm's actions to achieve its goals. Cash planning and profit planning are two critical components of the financial planning process. Cash planning entails creating the firm's cash budget. Profit planning entails creating pro forma statements. Internal financial planning benefits from both the cash budget and the pro forma statements. Existing and prospective lenders frequently require them as well.

In this study, the authors will make financial planning of each alternative management of receivables that can overcome the problems faced by the company's receivables. There are two alternatives that companies can apply to reduce the average collection period and increase net profit, among others :

#### **a. Credit Selection Standard**

PT ABC must select creditworthy customers and compare them to the company's credit standards. The five C credits are one credit selection technique:

- 1). Character: The applicant's record of meeting past obligations.
- 2). Capacity: The applicant's ability to repay the requested credit, as judged in terms of financial statement analysis focused on cash flows available to repay debt obligations.
- 3). Capital: The applicant's debt relative to equity.
- 4). Collateral: The amount of assets the applicant has available for use in securing the credit. The larger the amount of available assets, the greater the chance that a firm will recover funds if the applicant defaults.
- 5). Conditions: Current general and industry-specific economic conditions and any unique conditions surrounding a specific transaction.

The following are the effects of tightening credit standards based on the Gitman & Zutter handbook:

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Variable	Direction of Change	Effect on Profit
Sales Volume	Decrease	Negative
Investment in AR	Decrease	Positive

Table 1 The Effects on Changing Credit Standard

Source : (Gitman, Juchau, & Flanagan, 2015)

### 3. Cash Discount

Cash discounts are one way to shorten collection periods by incentivizing customers to pay sooner. The advantage is that the company's investment in accounts receivable is reduced, bad debts are reduced because customers pay faster, and sales are increased because customers pay faster.

The author will conduct a simulation of the two alternatives mentioned above. The alternative that provides the highest profit will be selected and risk management will be carried out so that the risks that might arise from these alternatives can be minimized.

## Results and Discussion

### 1. Analysis

Based on the data obtained by the author from PT ABC, the following information is obtained:

#### a. Revenue Projection

The management of PT ABC believes that there will be an increase in revenue of 6% per year, this is based on management's calculations of the number of flights after the Covid-19 pandemic which has begun to increase so that the projected income for the period 2022 - 2027 is as follows :

Description	2022	2023	2024	2025	2026	2027
Revenue	24.181.630.957	25.632.528.815	27.170.480.544	28.800.709.376	30.528.751.939	32.360.477.055

**Table 2 Cost of Cash Discount (in IDR)**

**Source : Data analysis**

The benefit received by the company as a result of give cash discount in the table above. The final step is to compute the benefit or loss from implementing cash discount using the following formula:

$$\text{Benefit} = \text{additional profit contribution from sales} + \text{benefit to reduce marginal investment in AR (cost of marginal investment in AR)} - \text{cost of cash discount}$$

Description	2022	2023	2024	2025	2026	2027
Benefit	364.654.914	386.534.209	409.726.261	434.309.837	460.368.427	487.990.533

**Table 3 Benefit From Cash Discount (in IDR)**

**Source : Data analysis**

This calculation gives a positive result, meaning that the company will continue to benefit for the next six years if it provides a cash discount.

b. The Best Scenario of Business Solution

Year	Benefit Projections	
	Credit selection and standard	Cash discount
2022	256.946.449	364.654.914
2023	272.363.236	386.534.209
2024	288.705.031	409.726.261
2025	306.027.332	434.309.837
2026	324.388.972	460.368.427
2027	343.852.311	487.990.533

Table 4 Result of The Best Scenario Solution (in IDR)

Source : Data analysis

Table 4 shows that the cash discount scenario produces better results than the other scenarios. As a result, the cash discount scenario is the best option. The author also performs calculations to determine the limits of the discount range that PT ABC can offer its customers while maintaining a net profit value equal to the credit tightening value. The tools for this calculation are what-if analysis and goal seek. As a result, if PT ABC's management wishes to apply for a cash discount of up to 3.35%, this is still considered reasonable.

c. Risk Management

The goal of this research is to analysed and recommend the best alternative solutions to optimize the Cash Conversion Cycle. This section will examine the risks and uncertainties that may arise during the projections.

1). Risk Identification

The first step is to identify any potential risks to the project's activities.

This table will display the risks associated with this project.

No	Type of Risk	Risk of Identification	Descriptive	Probabi lity	Impact	Risk Score
1	Operational Risk	Invoicing process	The billing process may be slowed as a result of cash discount policies that can be implemented to encourage customers to pay	3	D	3D

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			faster.			
2	Operational Risk	Disrupted operations	Due to a lack of funds, several work programs were delayed.	4	E	4E
3	Market Risk	Economic growth	The risk of an unstable economy may have an impact on the business.	3	D	3D
4	Market Risk	Risk of reputation	The possibility of customers negatively impacting brand perception	2	D	2D
5	Financial Risk	Liquidity risk	Due to a lack of cash flow, the company is having difficulty meeting its short-term obligations.	4	E	4E
6	Financial Risk	Cost of discount	The increased cost of discount due to the customer's eagerness to use the cash discount policy	2	D	2D

**Table 5 Risk Identification**  
**Source : Data analysis**

**2. Risk Mitigation**

After identify the risk, PT ABC should conduct risk mitigation activities. This table shows the risk mitigation for the company.



No	Risk of Identification	Risk Mitigation	Probability	Impact	Risk Score
1	Invoicing process	Monitor the billing process to ensure that it follows the procedure	2	C	2C
2	Disrupted operations	Perform efficiency and priority scale	3	C	3C
3	Economic growth	In the event of market volatility, the company should try to prepare a business continuity plan.	2	B	2B
4	Risk of reputation	Create a positive perception among customers that the cash discount policy is a policy aimed at quickly recovering the aviation business following the covid-19 pandemic	2	B	2B
5	Liquidity risk	Perform debt restructuring	3	C	3C
6	Cost of discount	Customers with a certain turnover value are given cash discount policies.	2	B	2B

Table 6 Risk Mitigation

Source : Data analysis

In the following, the author will present the risk mapping before and after risk mitigation is carried out

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### 3. Risk Monitoring

PT ABC needs to carry out risk monitoring to ensure that the implementation of risk management has been going according to the plan. The following table displays risk monitoring related to accounts receivable management policies

No	Risk of Identification	Controlling	Frequently Report	PIC	Monitoring
1	Invoicing process	Invoicing Procedure	Every month	VP of Treasury and Cash Management	Director Finance
2	Disrupted operations	Service Level Agreement	Every month	VP of Operations	Director Operation
3	Economic growth	Gross Domestic Product Report	Every six month	VP of Commercial	Director Commercial
4	Risk of reputation	Form Customer Service Satisfaction	Every six month	VP of Commercial	Director Commercial
5	Liquidity risk	Liquidity Ratio	Every month	VP of Treasury and Cash Management	Director Finance
6	Cost of discount	Report on the percentage of customers who take discounts	Every month	VP of Treasury and Cash Management	Director Finance

Table 7 Risk Monitoring  
Source : Data analysis

### 3. Implementation Plan and Justification

After selecting the receivables policy scenario and measuring the risk, PT ABC needs to make an implementation plan to make this method well execute and give a positive impact to PT ABC.

Description	Feb-	Apr-	Jun-	Aug-	Oct-	Dec	Jan
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	Mar 2023	May 2023	Jul 2023	Sep 2023	Nov 2023	2023	2024- Dec 2027
Conduct an assessment of cash conversion cycle and aging account receivable							
Application of cash discount policies to customers							
Review the performance of cash conversion cycle and maintain the credit rating							
Continue to improve the performance of cash conversion cycle							

## Conclusion

Based on information from the previous chapter, this study found that managing accounts receivable can reduce costs, increase profits and increase the cash conversion cycle which makes the company's working capital better. In the following, the author describes the solution to the problem formulation faced by PT ABC regarding accounts receivable management 1. There are two ways of managing receivables that PT ABC can use to improve the cash conversion cycle. The first way is tightening credit standards and the second way is Initiating Cash Discounts. In order to choose the best alternative solution, initiating a cash discount is applied in this final project. The parameter used by the authors to determine the best of the two options is net profit. This study found that the net profit generated from cash discounts was higher than tightening credit standards, so the authors chose the cash discount option to be implemented at PT ABC. 2. After selecting the cash discount option as the best accounts receivable management solution at PT ABC to increase the cash conversion cycle, the authors conducted a risk assessment of this option. There are six risks might arise if the authors choose this option. The possibility of these risks comes from operational risk, market risk, and financial risk. These risks can be managed using the mitigation the author described in the previous chapter. The final and most crucial step in risk management is risk monitoring to ensure that the implementation of risk management has been going according to the plan.

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