

Cash Management Optimization Strategy to Reduce the Risk of Delayed Payment Obligations for PT. Bukaka Teknik Utama Site Duri

Andini Larasati^{1*}, Bagus Panuntun²
Universitas Islam Indonesia

Corresponding Author: Andini Larasati 21311421@students.uii.ac.id

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ABSTRACT

This study aims to analyze the cash management optimization strategy to reduce the risk of delay in payment obligations at PT Bukaka Teknik Utama Site Duri. The main problem faced by the company is the imbalance between cash inflow and urgent operational expenses, which is triggered by the delay in disbursement of receivables from major clients and suboptimal distribution of funds from the head office. The method used in this study is a quantitative approach with multiple linear regression analysis. The independent variables tested include payables and receivables, while the dependent variable is cash flow. The results of the study indicate that payables have a significant effect on cash flow, while receivables do not have a significant effect. The coefficient of determination (R^2) of 92.5% indicates that the regression model is able to explain variations in cash flow substantially. Based on these findings, the recommended optimization strategies include managing and rescheduling debt payments, increasing the autonomy of fund management at the site level, and developing digital features of the CB-Ledger financial system to be more adaptive and responsive to liquidity pressures. This study provides a practical contribution to increasing the effectiveness of the cash management system of site-based project companies.

INTRODUCTION

PT. Bukaka Teknik Utama Duri-Riau is a company engaged in the field of Gas and Oil Equipment, is a branch of the Bukaka head office located at the Duri site location, where in this case the operational management uses Petty Cash. Petty Cash is cash that is used only to finance company needs and matters related to company activities, this cash is specifically created to pay small expenses that are carried out routinely and are relatively small in amount. This company has an application known as CB-Ledger, which functions to manage various financial activities at PT Bukaka Duri. In the application, financial activities begin with the process of recording cash expenditures, then continued with the withdrawal of relevant financial data. In addition, this application is also used to input job billing invoices in this case PT. Pertamina Hulu Rokan as the employer, as well as used as debt management for vendors who collaborate with PT. Bukaka Teknik Utama.

PT. Bukaka Teknik Utama collaborates with Pertamina Hulu Rokan (PHR). Prior to its collaboration with Pertamina Hulu Rokan, PT Bukaka Teknik Utama partnered with the international oil company, PT Chevron Pacific Indonesia. However, on August 9, 2021, PT Chevron's contract expired, and ownership was transferred to the state-owned company, PT Pertamina Hulu Rokan (PHR), which owns 100% of the Rokan Block. In this regard, the production of nodding pumps or pumping units has long been entrusted to PT Bukaka Teknik Utama to support oil and gas production in the Rokan region. Currently, more than six thousand pumping units have been operating in the Duri oil field. In this regard, PT Bukaka Teknik plays a major role in pumping production, where production is carried out at the Head Office workshop and then sent to the Duri site workshop for installation and maintenance of PT's pumping units. Bukaka sells products and provides services to PHR, including purchasing pumping units, maintaining pumping units, renting heavy equipment such as backhoes, and installing pumping units. So Bukaka Duri site has income only through PHR invoices billed according to PHR's request to Bukaka. This income will be operational at the Duri site. The price for the work that has been done by PT Bukaka is for maintenance work varying from Rp. 900,000 - Rp. Rp. 5,000,000 per pumping unit, for pumping installation work around Rp. 100,000,000, backhoe loader heavy equipment rental Rp. 115,000,000, and the largest income is from the purchase of pumping units by Pertamina Hulu Rokan, namely Rp. 400,000,000 per unit for small pumping units and Rp. 700,000,000 for large pumping units. In this case, the income from this work is the source of working capital and operations of PT. Bukaka Teknik Utama. However, what is given to the Duri site is only approximately 20% because the income is subsidized for projects in other units so it is not fully sent to the Duri site.

The operational resources of the Bukaka Duri site are regulated by monthly fund transfers from the head office. Revenue from the work performed at the Bukaka Duri site is initially transferred to the head office, where it is then distributed as needed. Before funds are disbursed, each department at the Bukaka Duri site must compile a monthly needs list and budget. This list includes

requests for materials and other necessities required for the department's operations. After all departments have compiled and compiled their needs lists and budgets, the documents are submitted to the finance department. The finance department then compiles all requests into a single monthly cash request file. This request file must be approved by signatures from the site manager, the finance department, and the party requesting the funds. Once all signatures and approvals are obtained, the cash request file is sent to the head office for further processing. This process ensures that financial management at the Bukaka Duri site is structured and transparent.

Due to these conditions, PT. Bukaka Site Duri often experiences obstacles in the smooth receipt of petty cash for operational needs in the field, because the funds sent by the Head Office are partially insufficient, this is also caused by the payment terms of invoices from the employer Pertamina Hulu Rokan which often experience delays in disbursement of funds. This obstacle causes operational capacity to be insufficient every week, vendor debts to accumulate, and also the emergence of other unexpected costs. These problems result in significant disruptions in the smooth operation and finances at Bukaka site Duri. Therefore, the author intends to re-examine the various factors that cause these obstacles, as well as propose solutions that can improve the smooth operation of PT Bukaka site Duri in the future.

Several studies related to the issues raised, namely, research by Maya Josefa Hutapea & Muhammad Reza Septriawan, "The Effect of Uncollectible Accounts Receivable on Cash Flow of PT Sinar Rezeki Mas Makmur" found that the increase in uncollectible accounts receivable hampers cash inflow due to weak credit policies and inadequate supervision. The proposed solution is to tighten credit policies and require down payments before shipping goods. Research by Rahmayani Yusuf & Nurul Ramadini Sapitri, "The Effect of Accounts Receivable Management on Cash Flow Effectiveness at PT Telekomunikasi Indonesia (PERSERO) TBK for the 2015-2019 Period," shows that the increase in accounts receivable due to inefficient management hampers cash turnover and reduces cash flow effectiveness. Research by Pulung Grahito & Supramono, "The Role of Petty Cash Management in Supporting Operations at PT Fastfood Indonesia TBK," highlights that inefficient petty cash replacement methods lead to procedural violations and unnecessary expenses, which reduce the company's operational efficiency.

Formulation of the Problem

1. Has the cash management process at PT Bukaka Teknik Utama Duri site been running effectively and in accordance with the standard operating procedures established by the company?
2. What are the factors that influence the lack of smooth cash management at PT Bukaka Teknik Utama, thus hampering productivity and performance?
3. What recommendations can be made regarding the various obstacles/deficiencies found?

Research purposes

1. To find out how the cash management process at PT. Bukaka Teknik Utama is in accordance with the standard operating procedures (SOP) set by the company.
2. To determine what factors can affect the cash flow of PT. Bukaka Teknik Utama
3. To find out recommendations for improvements in cash management at PT. Bukaka Teknik Utama

LITERATURE REVIEW

Definition of Cash

According to PSAK 2, cash is a current asset consisting of cash and money in checking accounts, as well as other assets that function like money. This includes cash balances and checking accounts available both at the company and at the bank and can be used at any time. Assets categorized as cash include readily available means of payment or medium of exchange, such as cash, money in checking accounts, checks received as payment from other parties (including traveler's checks), bank overdrafts (interbank payments due to negative account balances), and postal orders. However, not all assets can be considered cash. Examples of assets that are not considered cash are time deposits, post-dated or bounced checks, money designated for specific purposes such as pension funds, and postage stamps and duty stamps. These assets do not meet the criteria for cash because they cannot be used as readily available means of payment or medium of exchange (Kaligis, 2018).

Petty cash is cash set aside by a company to cover relatively small expenses. These expenses are inefficient if paid by check or money order. This petty cash fund is managed by the cashier, who is responsible for small, routine payments. The cashier is responsible for ensuring that the petty cash fund is used for its intended purpose and for recording every transaction (Harmain et al., 2019).

Establishing a petty cash fund is crucial because relatively small, frequent payments can accumulate into significant amounts over time. Without proper controls, these small expenses may go unrecorded, ultimately leading to imbalances in a company's financial statements. Therefore, to ensure that these small expenses are properly and accurately monitored, effective internal controls are necessary. This control can be achieved by establishing a petty cash fund system that allows for the regular and structured recording and monitoring of small expenses. To establish a petty cash fund, a company needs to estimate the amount of cash needed for a specific period, such as a week or a month. This process involves estimating routine expenses incurred during that period and ensuring that sufficient funds are available to cover all needs. Thus, a petty cash fund system not only helps manage small expenses but also maintains the accuracy and reliability of a company's financial statements (Dewi, 2022).

Debts and Receivables

Debt is all of a company's financial obligations to external parties that have not been fulfilled, so that it functions as a source of funds or capital for the company that comes from creditors.

Accounts receivable is the amount of money a company owes as a result of selling products and services to customers on credit. The main factors that determine a company's investment in receivables include the type of industry, the total number of sellers, and the company's credit and collection policies. Managing receivables involves establishing credit and collection policies, which consist of four categories: credit duration, early payment discounts, credit standards, and collection policies. Three key considerations in receivables management are who will be given credit, the credit terms, and collection procedures.

Key decisions regarding accounts receivable include determining the amount and terms of credit extended to customers. The amount of accounts receivable at any given time is determined by the volume of credit sales and the average time between sales and collection. Tighter credit terms will decrease the investment in accounts receivable and reduce the risk of bad debts. (Kontus, 2013)

Cash Flow

A cash flow statement is a document that presents cash receipts and disbursements over a specific period, as well as providing information on the sources of those receipts and disbursements. The purposes of preparing a cash flow statement include:

- a. Evaluate the company's ability to generate net cash flows in the future.
- b. Evaluate the company's ability to meet its dividend payment obligations, as well as its internal funding needs.
- c. Evaluate the difference between net income and related cash receipts and disbursements (Harmain et al., 2019).

Theoretical Framework

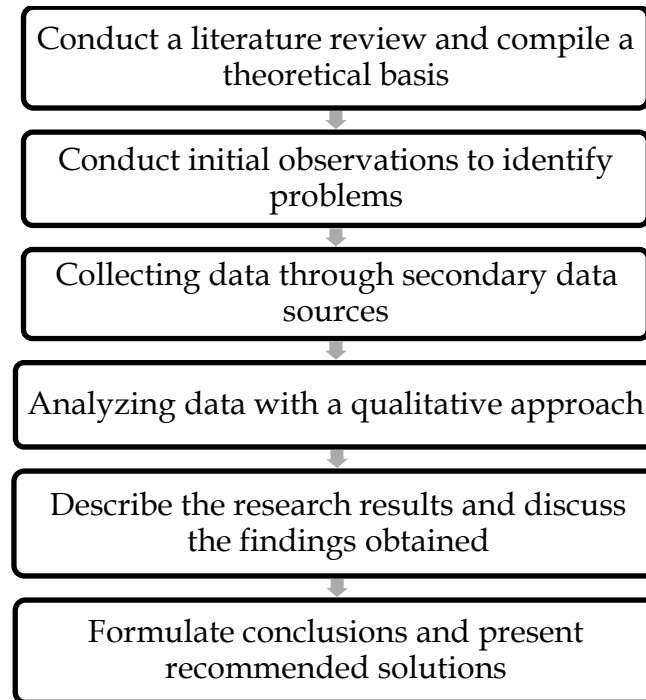


Figure 1. Theoretical Framework

METHODOLOGY

The author completed a four-month internship at PT. Bukaka Teknik Utama Site Duri, focusing on the work environment during that period. During the internship, the author was placed as part of the finance team. This research uses a quantitative approach, defined as a systematic investigation of phenomena by collecting measurable data using statistical, mathematical, or computational techniques (Fadilla et al., 2022). The quantitative research approach focuses on analyzing data in numerical or numerical form, which is then processed using appropriate statistical methods. Generally, this type of quantitative research is used for inferential purposes, namely to test formulated hypotheses (Hardani MSi et al., 2020).

This quantitative research approach is suitable for use in this research, because this approach allows for data measurement, such as cash flow, petty cash, PHR invoices and several vendors, and also analyzes the relationship between cash management and the risk of delaying payment obligations, and provides an appropriate statistical basis for creating effective strategies.

The unit of analysis of this report is PT Bukaka Teknik Utama Site Duri, specifically in the context of management optimization which includes an in-depth analysis of the processes, practices and policies implemented by the company in cash management, as well as how they affect the company's ability to mitigate the risk of delays in payment obligations. The unit of analysis also includes individuals or groups within the company involved in cash management. Data Sources and Data Collection Techniques

Secondary data in this study will be obtained from various internal documents of PT. Bukaka Teknik Utama Site Duri Company that are relevant to this research topic. These documents include petty cash reports that record the

Company's petty cash expenditures for the Company's operational needs, employee out-of-service documents (DL) that record details of business trips and related expenses, Company invoicing documents that contain information related to bills and payment receipts, and financial information taken from the Company's applications.

Meanwhile, data collection techniques will be carried out in the following ways:

- a. Financial Report: Using the financial report of PT Bukaka Teknik Utama for 2023-2024
- b. Data Base: Using data that has been stored by PT Bukaka Teknik Utama such as PHR invoice reports, vendor invoice reports, and employee external service documents.

RESEARCH RESULTS

Classical Assumption Test

Using Graph Analysis

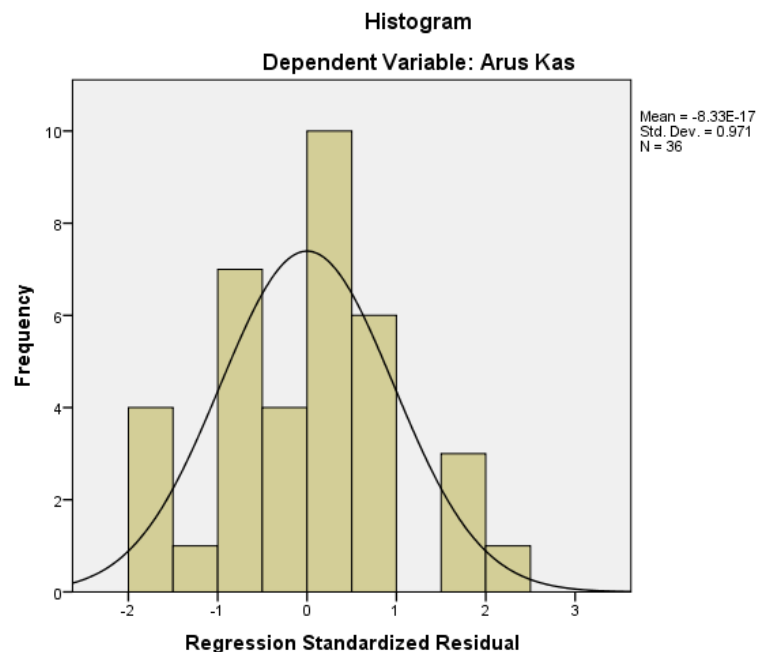


Figure 2 Histogram Before Data Transformation

The criteria for data to be considered normal is if the histogram graph shows a distribution pattern that does not deviate to the left or right (skewness). Based on the histogram graph in the figure above, it shows that the curve line tends to deviate to the right (not symmetrical (U), so it can be said that the data is not normally distributed. For this reason, data transformation is necessary. The test results after transformation are as follows:

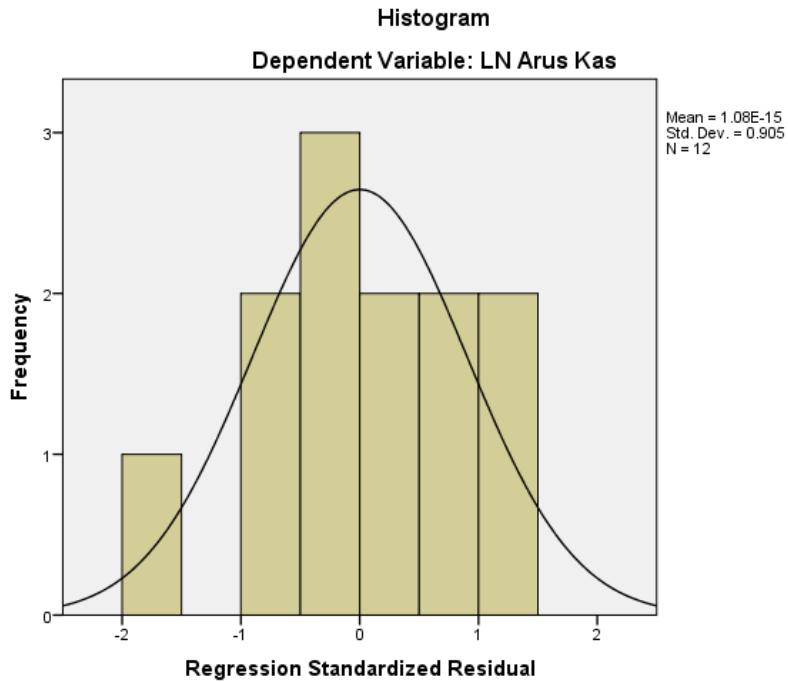


Figure 3 Normality Test After Transformation

After data transformation, the histogram above shows that the histogram pattern is symmetrical and does not deviate to the left or right. Therefore, it can be concluded that the residual data is normally distributed. The normality test for the Probability Plot before transformation is as follows:

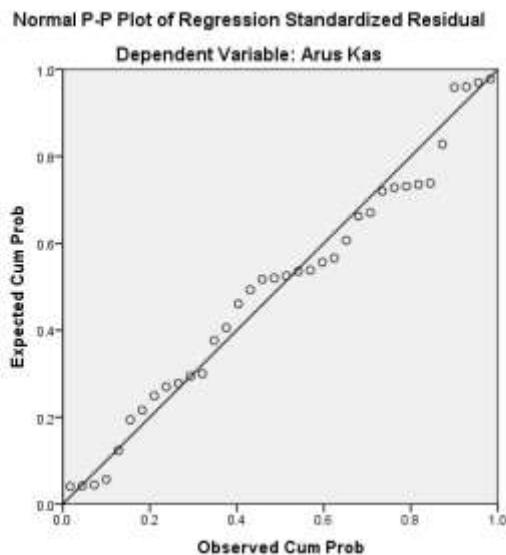


Figure 4 Normal PP Plots Graph Before Data Transformation

The criteria for normally distributed data is if the data follows the diagonal line. The data (dots) are spread out and do not follow the diagonal line. Therefore, from the figure, it can be concluded that the residuals in the regression model are not normally distributed. The results of the normality test for the Probability Plot after transformation are as follows:

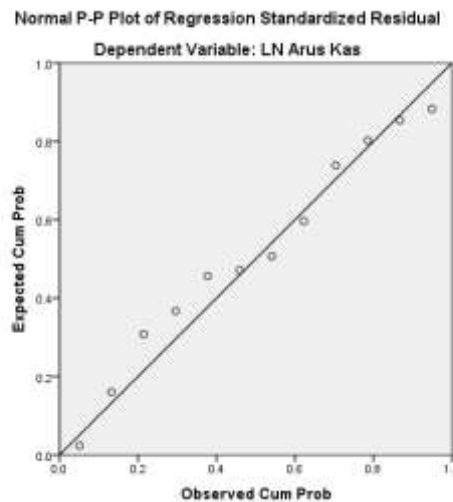


Figure 5. Normal PP Plots Graph After Data Transformation

The figure above shows that the data (dots) are spread around the diagonal line and follow the diagonal line. Therefore, from the figure, it can be concluded that the residuals in the regression model are normally distributed. The results of the Kolmogorov-Smirnov test in Table 1 show that after data transformation using natural logarithms, the results obtained indicate that the data is normally distributed. This can be seen from the significance value of 0.200, which is greater than 0.05, so it can be concluded that the variables used are normally distributed.

Table 1. Kolmogorov-Smirnov Normality Test Results

		Unstandardized Residual
N		12
Normal Parameters ^a , b	Mean	.0000000
	Standard Deviation	.51174029
Most Extreme Differences	Absolute	.123
	Positive	.094
	Negative	-.123
Test Statistics		.123
Asymp. Sig. (2-tailed)		.200 ^{c,d}
a. Test distribution is Normal. b. Calculated from data. c. Lilliefors Significance Correction. d. This is a lower bound of the true significance.		

Heteroscedasticity Test

To determine heteroscedasticity, you can also use a Scatterplot graph. The points formed must be spread randomly, spread both above and below the number 0 on the Y axis. The results of the heteroscedasticity test can be seen through the Scatterplot graph, which is shown in the figure below:

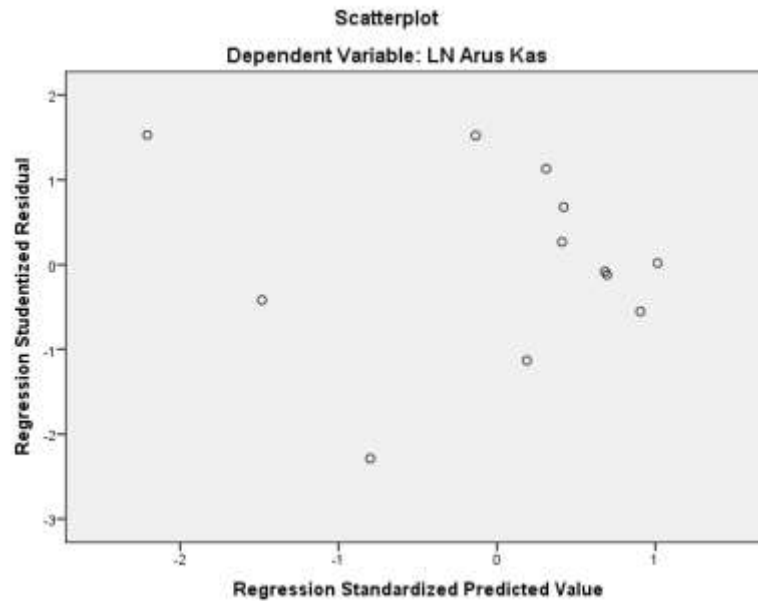


Figure 6. Heteroscedasticity Test Results Graph

The criteria for a scatterplot graph, heteroscedasticity does not occur if there is no clear pattern, and the points are spread above and below the number 0 on the Y axis. The image above shows that the scatterplot graph shows that the points are spread randomly and are spread both above and below the number zero (0) on the Y axis, do not gather in one place, and do not form a certain pattern so that it can be concluded that there is no heteroscedasticity in the regression model.

Besides using graphs, heteroscedasticity can also be tested using the Glejser test. The Glejser test is performed by regressing the independent variable against the absolute value of the residual. If the significance value between the independent variable and the absolute value of the residual is >0.05 , heteroscedasticity is not present.

Table 2. Results of Heteroscedasticity Test with Glejser Test

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	10,734	5,003		2,146	.060
	LN Debt	-.271	.159	-.479	-1,698	.124
	LN Receivables	-.190	.111	-.485	-1,719	.120

a. Dependent Variable: ABS_RES2

Based on table 2 above, the results of the Glejser test show that the significance level of the LN Debt and LN Receivable variables is 0.124 and 0.120 (>0.05) so it is concluded that there is no heteroscedasticity.

Autocorrelation Test

Table 3. Autocorrelation Test Results with Durbin-Watson

Model Summary					
Model	R	R Square	Adjusted R Square	Standard Error of the Estimate	Durbin-Watson
1	.962a	.925	.908	.56575	1,417
a. Predictors: (Constant), LN Receivables, LN Payables					
b. Dependent Variable: LN Cash Flow					

Based on table 3 above, it shows that the Durbin-Watson value obtained is 1.417. The method of measuring the autocorrelation test is: $du < d < 4 - du$. The du value in this study is: 2 independent variables and 36 samples, with du of 1.5925. Then the results of the measurement value are: $1.5925 < 1.417 < 2.4075$. Because the value of $d < du$, it is concluded that positive autocorrelation occurs. However, this result is still acceptable so that the regression analysis and hypothesis testing can continue.

Table 4. Autocorrelation Test Results with Runs Test
Runs Test

		Unstandardized Residual
Test Value ^a		-.01571
Cases < Test Value		6
Cases >= Test Value		6
Total Cases		12
Number of Runs		5
Z		-.908
Asymp. Sig. (2-tailed)		.364

a. Median

The test criterion is that no autocorrelation occurs if the resulting significance value is >0.05 . The Run Test results obtained a significance value of 0.364. Therefore, it can be concluded that the tested data is not affected by autocorrelation. This result is acceptable, allowing the regression analysis and hypothesis testing to continue.

Data Analysis Techniques**Results of Multiple Linear Regression Analysis and Hypothesis Testing**

Table 4. Results of Multiple Linear Regression Analysis

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-70,028	9,611		-7,286	.000
	LN Debt	3.198	.306	.992	10,449	.000
	LN Receivables	.347	.213	.155	1,630	.138

a. Dependent Variable: LN Cash Flow

Interpretation of Multiple Linear Regression Models

Based on the regression output, a model was obtained with the dependent variable LN Cash Flow and two independent variables, namely LN Debt and LN Receivables. The interpretation of the coefficients uses the value *Standardized Coefficients (Beta)* show that:

1. The LN Debt variable has the most dominant influence on LN Cash Flow with a Beta value of 0.992, indicating that every increase of one standard deviation in LN Debt will increase LN Cash Flow by 0.992 standard deviations, assuming other variables are constant.
2. The LN Receivables variable has a much smaller influence on LN Cash Flow, with a Beta value of only 0.155, which means that its contribution to the variation in LN Cash Flow is relatively low compared to LN Payables.

Hypothesis Testing Results (Partial Test)

Hypothesis testing is done by looking at the Sig. (p-value) value for each variable:

1. LN Debt: Significance value = 0.000 ($p < 0.05$), so H_0 rejected. This means that LN Debt has a significant effect on LN Cash Flow.
2. LN Receivables: Significance value = 0.138 ($p > 0.05$), so H_0 failed to be rejected. This means that LN Receivables do not have a significant effect on LN Cash Flow in this model.

Analysis of the Coefficient of Determination (R²)

This coefficient of determination test is used to measure the model's ability to explain variation in the dependent variable. The coefficient of determination values for this study can be seen in the following table:

Table 5. Model Summary

Model Summary					
Model	R	R Square	Adjusted R Square	Standard Error of the Estimate	Durbin-Watson
1	.962a	.925	.908	.56575	1,417
a. Predictors: (Constant), LN Receivables, LN Payables					
b. Dependent Variable: LN Cash Flow					

Based on the table above, the R2 value is 0.925. The next step is to determine the extent of influence of variable X on variable Y using the R2 coefficient of determination expressed as a percentage. The results are as follows:

$$\begin{aligned}
 R^2 &= (0.925)^2 \times 100\% \\
 &= 0.925 \times 100\% \\
 &= 92.5\%
 \end{aligned}$$

From the calculation results above, it can be concluded that there is an influence of variable X on Y of 92.5% and the remaining 7.5% is influenced by other variables outside this research.

DISCUSSION

Effectiveness of Cash Management at the Duri site

In this study, the results of the classical assumption test indicate that the data used have met the valid criteria for regression analysis. The normality test (Kolmogorov-Smirnov) produced a significant value of $0.200 > 0.05$, indicating that the data is normally distributed after transformation. The heteroscedasticity test using a scatterplot or a Glejser test showed that there were no symptoms of heteroscedasticity, which means the regression model is stable. In addition to these two tests, the autocorrelation test using a run test produced a significant value of $0.364 > 0.05$, thus confirming that the data is free of autocorrelation.

Thus, statistically, the current cash management system exhibits a consistent and structured pattern. Although the overall system operates stably, individual variables do not contribute equally to cash management effectiveness. This situation presents an opportunity for improvement or optimization of variables with low impact, in order to increase efficiency and integration within the overall cash management system.

Factors Affecting Cash Flow

a) The Effect of Debt on Cash Flow

The T-test results show that the LN Debt variable has a significant and dominant influence on cash flow, with a significance value of $0.000 < 0.05$, so H0 is rejected, which means that LN Debt has a significant effect on LN cash flow. This states that effective debt management, including scheduling payments to vendors and controlling operational debt, greatly affects the smoothness of cash flow at the Duri site.

With numerous urgent expenses to be paid to vendors or for field needs, if debt is not managed properly, cash flow will be under pressure. Therefore,

higher debt obligations without adequate cash inflow support will increase the risk of delayed payments. The results of this study align with research conducted by (Hendrawati et al., 2023; Sapriyani, 2023), which also indicates that debt has a significant impact on the Company's cash flow. This is reinforced by PT Bukaka Teknik Utama's financial report data, which shows that short-term debt fluctuated from January to September 2024, accompanied by fluctuations in operating cash flow during the same period. This condition reflects the Company's management's inability to optimally manage debt and cash inflows and outflows, thus causing instability in the Company's financial condition.

b) The Effect of Receivables on Cash Flow

The results of the T-test indicate that the variable LN Receivables does not have a significant influence on LN Cash Flow, with a significance value of $0.138 > 0.05$. This indicates that although the Company's receivables, especially from PHR as an employer, their role in maintaining cash stability is relatively low due to the uncertain nature of the disbursement time.

Field conditions indicate that PHR payment terms are often delayed, resulting in uncertain cash inflows. The results of this study align with research conducted by (Hasibuan et al., 2024; Rohayu Ningsih, 2022), which also indicates that receivables do not have a significant impact on the Company's cash flow. Most of the Company's receivables are receivables from a single period or time period, and not all of them are collectible within one year. This results in the impact of receivables on cash flow being insignificant in the current period, and thus their impact on future cash flows tends to be insignificant.

Based on internal company data, the average accounts receivable turnover decreased by 0.05 in June 2024, accompanied by a decrease in cash flow of Rp25,956,375. This decrease could pose various risks, such as the retention of working capital that should be used for operational needs due to unpaid receivables within a certain period.

This phenomenon is caused by increasing receivables without a corresponding increase in sales, thus not only weakening the effectiveness of receivables management but also causing a decrease in cash flow. In other words, changes in the amount of receivables cannot be used as a predictor of future cash flow.

In this case, companies need to pay closer attention to their overall cash flow. High revenues will not positively impact financial stability if they are not accompanied by timely receivables payments from customers. Uncertainty in the disbursement of receivables can lead to financial instability and hinder the smooth operation of a company.

c) Regression Model and Contribution of Explanatory Variables

The results of the regression model in this study indicate a coefficient of determination of 0.925, equivalent to 92.5%. This indicates that the regression model used is quite good and capable of predicting cash flow quite accurately, as most of the changes in the Company's cash flow can be explained by fluctuations in accounts payable and receivables.

Cash Management Optimization Strategy

Based on the results of regression analysis and findings in the field during the period. Based on the internship results, it was found that PT Bukaka Teknik Utama Site Duri faced a major problem in the form of an imbalance between cash inflow and urgent operational expenses. The results of the partial test (t-test) showed that the LN Debt variable had a significant and dominant influence on cash flow, with a significance value of 0.000 (<0.05). Thus, H_0 is rejected, which means that LN Debt has a significant effect on LN Cash Flow.

These findings indicate that cash flow is significantly influenced by the size of debt obligations that must be paid immediately, while income from receivables often experiences delays in disbursement. This suggests that a company's cash flow is more sensitive to expenses (payment obligations) than to receipts from receivables.

Therefore, cash management optimization strategies need to focus on actively controlling debt and improving the accounts receivable collection system to minimize the risk of delayed payments. The recommended strategies are as follows:

a) Reduce Debt to Suppliers and Schedule Debt Payments

Based on the T-test results, the debt variable was shown to have a very significant impact on the company's cash flow. Therefore, a cash optimization strategy through debt management and reduction is an effective step to improve cash flow stability. Companies need to prioritize payments, considering the maturity and urgency of each obligation. Furthermore, negotiating with vendors to obtain flexibility in payment schedules is also a crucial strategy, especially if operational funds from the head office are not yet available in a timely manner.

By reducing the debt burden, the company will have more cash available for operational needs and support business growth. Debt reduction efforts can be achieved by increasing efficiency in cash receipts and disbursements, such as by accelerating accounts receivable collection and ensuring timely payments. These steps will not only reduce the company's need for additional borrowing but also directly help increase cash inflow and maintain liquidity.

b) Separation of Duri Site Operational Funds from Other Unit Projects

Currently, only about 20% of PT Pertamina Hulu Rokan (PHR) project revenue is actually allocated to the Duri Site, while the remainder is used for cross-subsidies to other project units under PT Bukaka Teknik Utama that also need funding. The percentage of cash receipts from the head office is for the payment of accounts payable and operational needs. The Duri Site project is only around 20% per month of the total PHR project work receivables.

This situation has limited liquidity at the Duri Site and has the potential to hinder the smooth payment of obligations and operational activities. Therefore, it is recommended that management consider implementing a more autonomous cash management system at the site level, so that the Duri Site can organize and manage its finances directly without being completely dependent on allocation policies from the central office. With this more independent system, the company can schedule operational payments and accounts payable in a

timely and comprehensive manner, rather than partially, so that the stability of the Duri Site's cash flow can be maintained and not disrupted by urgent needs from other unit projects that are not directly related.

c) Increased Revenue Allocation Presentation for Duri Site

A cash management optimization strategy needs to consider increasing the percentage of project revenue directly allocated to the Duri site. Currently, the Bukaka Duri site only receives approximately 20% of the PHR project revenue, which is allocated to site operational needs, with the remainder managed by central management for other project needs. This has limited liquidity at the Duri site, often resulting in delays in payment of obligations such as supplier debts, daily operational costs, and other urgent needs.

By increasing revenue allocation to a more proportional level, for example, to 40%-60% of total project revenue received directly by the Duri site, financial flexibility will be enhanced and field needs can be met. These more adequate funds can be used directly to finance projects according to their urgency, streamlining weekly cash flow, and reducing dependence on the often lengthy disbursement process from the central office. This step can strengthen the site's financial independence and improve operational efficiency, enabling a faster response to cash needs. This, in turn, streamlines field operations. Furthermore, this strategy reflects the principle of fairness in resource allocation, where sites receive a portion proportionate to their contribution to company revenue. The central office should consider alternative financing options to avoid cash flow constraints caused by urgent needs from other units.

d) Implementation of Digitalization of CB-Ledger Financial System

PT Bukaka Teknik Utama currently uses the CB-Ledger system to manage various financial activities at the Duri Site. This application records operational cash expenditures, retrieves relevant financial data, and inputs invoices for billing work to the employer, PT Pertamina Hulu Rokan. Furthermore, CB-Ledger is also used as a tool to manage accounts payable to the company's vendors.

Although CB-Ledger already includes basic functions such as transaction recording and financial submissions, the system still has several limitations. Currently, CB-Ledger lacks real-time cash flow tracking, an early warning system for potential weekly cash deficits, or a weekly cash expense prediction module. These limitations force the finance team to manually calculate projected funding needs, which can lead to delays in financial decision-making on the ground. Therefore, it is recommended that companies develop advanced functionality within CB-Ledger by integrating:

- a. Calculation of daily and weekly cash inflow,
- b. Analysis of cash expenses against available cash balances, as well as
- c. Automated reporting that can be used by site managers to make decisions quickly and accurately, especially when cash conditions approach critical limits.

This system development strategy is supported by research results.(Iksan Burhanuddin et al., 2022)which states that digitalization in the financial system

can improve operational efficiency, record-keeping accuracy, and support real-time, data-driven managerial decision-making. With more comprehensive digitalization, companies can reduce the risk of delayed responses to liquidity pressures and accelerate the process of allocating funds between units, including from head office to site locations.

CONCLUSIONS AND RECOMMENDATIONS

Conclusion

Based on the results of data analysis and discussion that have been conducted in this study regarding the Cash Management Optimization Strategy to reduce the risk of delay in payment obligations for PT. Bukaka Teknik Utama Site Duri, the following conclusions can be drawn:

The cash management process at PT. Bukaka Teknik Utama Site Duri has generally been running quite effectively and in accordance with the company's standard operating procedures. This is evident from the compliance with financial recording, submission, and reporting procedures, as well as statistical test results indicating that the cash management model has a high level of accuracy with a coefficient of determination of 92.5%. However, the effectiveness of cash management is not yet fully optimal due to the ongoing imbalance in contributions between the financial variables that influence cash flow.

The main factors that can cause cash flow disruptions at the Duri site are the significant influence of accounts payable management and inefficiency in accounts receivable management. The results of data analysis indicate that accounts payable significantly influences cash flow with a significance value of 0.000 (<0.05). Therefore, poorly controlled payment scheduling to suppliers and high dependence on funds from the head office are the main causes of the delay in the smooth payment of obligations in this company. On the other hand, accounts receivable do not significantly influence cash flow because the disbursement of funds from the main employer, namely PT. Pertamina Hulu Rokan (PHR), tends to be uncertain and often experiences delays in payment. So this can cause a decrease in cash inflow and hamper the turnover of working capital, which ultimately impacts the productivity and smoothness of the company's daily operations.

As a recommendation, in the short term, the company can prioritize controlling and rescheduling debt payments based on urgency and maturity, as well as negotiating with suppliers to achieve flexibility in payment timing. The company also needs to encourage an increase in the allocation of PHR project funds to the Duri site, which currently only receives 20% of revenue, so that it can further increase to 40-60%, so that financial management can be more responsive to urgent needs. In the medium to long term, PT. Bukaka Teknik Utama needs to consider separating the management of operational funds at the Duri site to be more independent from other project units. In addition, the development of a financial digitalization system through the CB-Ledger application needs to be improved, with the addition of real-time cash flow tracking features, an early warning system for deficits, and analysis of expenses on available cash balances. With this comprehensive and structured strategy, cash management at the Duri site is expected to be more stable, efficient, and

adaptive to the dynamics of the company's operational needs. With the implementation of these strategies, it is hoped that cash management at PT. Bukaka Teknik Utama's Duri site will be able to support the smooth payment obligations and improve operational performance in a sustainable manner.

Recommendation

Based on these findings, the following are the main strategies recommended for implementation by PT Bukaka Teknik Utama Site Duri:

- a. Prioritize debt payments based on urgency and maturity, so as not to disrupt daily operational activities.
- b. Negotiate with vendors to get flexibility in payment terms, especially when cash inflow is delayed.
- c. Create a special fund in accordance with the presentation of the operational needs of the Duri site, so that the needs for this project are not disrupted by the urgent needs of other projects.
- d. Ensure that receivables are paid on time and always monitor payments effectively.
- e. Develop a CB-Ledger system to monitor cash flow in real-time, project weekly needs, and provide early warning of potential deficits.
- f. Conduct regular cash flow evaluations, for example weekly, to ensure financial conditions remain under control and responsive to changes in the situation on the ground.
- g. Cash flow and debt management are points that companies need to pay attention to in order to avoid long-term debt that can reduce the company's effectiveness.

ADVANCED RESEARCH

Future research can explore the development and implementation of integrated digital cash management systems specifically tailored for site-based operations in project-intensive industries. A comparative study between centralized and decentralized cash flow management models across multiple sites within the same corporate structure could provide insights into the effectiveness and efficiency of financial autonomy at the site level. Moreover, researchers may investigate the impact of real-time digital tools such as predictive analytics, automated alerts, and AI-assisted disbursement planning on improving liquidity and reducing payment delays. Longitudinal studies that measure financial performance before and after digital system enhancements could provide strong empirical evidence for strategic investment in financial technology. Additionally, examining behavioral aspects, such as managerial decision-making under liquidity stress and internal accountability practices, may uncover human factors affecting financial responsiveness in site operations.

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