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Research Article

The Influence of Capital Expenditure, Cash Flow, Leverage and Cash Conversion Cycle on Cash Holding in Manufacturing Companies in the Basic and Chemical Industries

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Abstract: This study seeks to examine how capital expenditure, cash flow, leverage, and cash conversion cycle affect cash holdings in manufacturing firms within the basic and chemical sectors listed on the Indonesia Stock Exchange. A quantitative method employing the SEM-PLS technique is utilized, analyzed through the SmartPLS version 3 software. The research sample is derived using a purposive sampling method, selecting companies that are consistently listed from 2022 to 2024 and possess complete financial reports. Data analyses were performed to identify the structural relationships among variables and to evaluate the direct impact of each independent variable on cash holdings. The findings reveal that capital expenditure positively and significantly influences cash holdings, suggesting that increased capital investments lead firms to maintain higher cash reserves for financial flexibility. Conversely, cash flow does not have a significant impact, indicating that internal cash availability is not a crucial factor in decisions regarding cash retention. Leverage demonstrates a significant negative effect, showing that high debt levels limit the ability of firms to preserve cash. Furthermore, the cash conversion cycle exhibits a positive but insignificant effect, signifying that the efficiency of the operational cycle is not yet a strong factor influencing cash policy. These results highlight the necessity of effectively managing capital structure, investment approaches, and operational balances as foundational elements in establishing a company's cash holding strategy.

Keywords: Capital Expenditure; Cash Conversion Cycle; Cash Flow; Cash Holding**;** Leverage

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1. Introduction

The manufacturing sector, notably the basic and chemical industries, is capital-intensive and has complicated operational dynamics. Due to the sector's sensitivity to raw material price volatility, changes in global demand, and the demand for long-term investment, liquidity management is essential for preserving financial stability. With a 3.08% growth rate in the fundamental and chemical industries during the third quarter of 2024, the significance of flexible financial strategies is clear, especially in relation to cash holding regulations. Capital-intensive and subject to complicated operational dynamics, the manufacturing industry is especially true of the fundamental and chemical industries. Because of the sector's sensitivity to raw material price volatility, changes in global demand, and the necessity for long-term investment, liquidity management is essential to ensuring firms' financial stability. With a rate of 3.08% in the third quarter of 2024, the expansion of the basic and chemical industries highlights the significance of flexible financial plans, notably in relation to cash holding regulations (Waluyo, 2025).

In the realm of financial decision-making, holding cash serves as a way for a company to remain adaptable amid uncertainty and potential funding challenges. As noted by (Opler et al., 1999), organizations keep cash on hand to serve as a safeguard against the expensive nature of external financing and to manage unpredictable cash flows. In industries like basic materials and chemicals, there is a heightened demand for cash due to lengthy production timelines and significant costs associated with machinery and production setups. Thus, recognizing the elements that affect cash reserves is vital for maintaining operational viability.

One of the primary drivers affecting a company's cash reserve levels is capital expenditure. When capital spending is substantial, businesses need to maintain enough cash reserves to support investment initiatives and increase their capacity. Prior studies have indicated that firms engaging in significant capital investments usually retain more cash as a safety measure against potential investment demands and the risk of underinvestment when external funding options are restricted, according to (Agus Gunawan et al., 2021; Rizki, 2017). This highlights a strong correlation between capital spending and a company's liquidity approach.

The patterns of cash flow also significantly influence cash holding strategies. Consistent cash flow allows firms to decrease their cash reserves, while unpredictable cash flow prompts them to keep larger cash amounts to mitigate liquidity shortfalls, as noted by (Camelia & Akbar, 2024). Furthermore, the level of debt, or leverage, is another critical factor; a higher debt ratio escalates a company's financial risk. Firms with considerable debt often maintain larger cash reserves to meet interest and principal repayment obligations, thus lessening the chance of financial trouble, as discussed by (Utmi et al., 2025; Yuliansyah, 2021).

The cash conversion cycle indicates how effectively a company manages its working capital. In sectors such as basic materials and chemicals, extended cash conversion cycles are typical due to elevated inventory levels and protracted production times. This scenario prompts firms to hold additional cash to ensure smooth operations without depending on short-term loans, as highlighted by (Farach Dhiba Helmaliana et al., 2024). Effectively managing the cash conversion cycle is crucial in minimizing the requirement for extra liquidity and enhancing financial adaptability.

While many studies have investigated the factors impacting cash holdings, there have been notable discrepancies in previous research regarding the influence of capital expenditures, cash flow, leverage, and the cash conversion cycle. Research focusing on the basic industry and chemical subsectors remains sparse, even though these industries possess distinct financial and operational traits compared to other manufacturing sectors. The shifts in economic conditions following the pandemic, along with global inflation and tightening monetary policies, necessitate an updated analysis using recent data. Therefore, a thorough investigation is required to reassess the effects of these factors on cash holdings, contributing both empirically to financial research and practically for companies looking to develop optimal liquidity strategies.

2. Literature Review

Management Accounting

The purpose of management accounting is to supply managers with pertinent information to aid in their operational and strategic decision-making. As per (Purwanti, 2023), management accounting uses complete costing and variable costing techniques, as well as cost concepts, to assess expenses and income in manufacturing enterprises and to analyze the relationship between costs, volume, and profits. In addition to establishing sales prices, budgets, standard cost systems, and variance analysis, management accounting also includes these components. A key element in assisting management in monitoring and assessing organizational performance is the idea of accountability centers. Management accounting, as used in this study, focuses on how cost and liquidity data is used to establish a manufacturing firm's cash holding position.

Financial Management

Financial management plays a critical role in helping a business effectively handle its assets, debts, and shareholder equity. According to (Sudana, 2019), there are three essential choices that influence a company's financial stability: investments, financing, and dividend payouts. As highlighted by (Erwin Dyah Astawinetu & Sri Handini, 2020), financial management combines both the art and science of strategizing, organizing, and overseeing cash flow by analyzing financial statements and considering the time value of money. (Sukamulja, 2021), notes that the primary focus of corporate financial management is to

enhance value through investment choices that are informed by the analysis of risks and returns. This viewpoint underscores the significance of policies regarding cash reserves as a vital component of a liquidity strategy necessary for maintaining a company's ongoing operations.

Trade-off Theory

Trade-off theory explains how businesses weigh the advantages of having cash on hand against the downsides of keeping it. (Opler et al., 1999) noted that cash acts like a safety net, helping to lower the uncertainties and costs of getting funding from outside sources. (Sheng, 2022) pointed out that when deciding how much cash to keep, firms also need to think about the chance of stock market drops, which means they should manage their cash needs alongside possible extra costs and lost opportunities. (Weidemann, 2018) highlighted that businesses should manage their cash wisely to prevent losing money from having too much unused cash, while also steering clear of the financial dangers that come from running low on cash. This theory is crucial for understanding why manufacturing firms decide to retain cash during times of unpredictable operations.

Pecking Order Theory

According to (Myers, 1984), the pecking order theory explains that firms prioritize their funding sources in a specific order: they first utilize internal funds, followed by debt, and then equity. (Frank & Goyal, 2008) highlight that due to asymmetric information, firms are inclined to favor internal funding, as the market often views the issuance of new shares unfavorably. (Serrasqueiro & Caetano, 2015) argue that utilizing internal funds reduces information-related costs and helps avoid negative market signals. (Agyei et al., 2020) indicate that firms select debt as their second option since it is considered to have a lower risk compared to issuing equity. This theory underscores the notion that cash reserves represent a crucial source of internal funding for investment and operational decisions.

Cash Holding

A company keeps cash on hand, along with cash equivalents, in order to satisfy operational requirements and retain financial freedom. According to (Opler et al., 1999), businesses maintain cash reserves in order to deal with unpredictability and avoid incurring external financial costs. According to (Lyandres & Palazzo, 2016), the degree of industry competition and a company's innovation efforts also have an impact on cash retention decisions. (Brown & Petersen, 2011) stress that cash is essential not only for day-to-day operations but also for safeguarding long-term investments, particularly intangible ones like research and development. Maintaining cash acts as a liquidity plan that safeguards the value of the business while also offering flexibility.

Three indicators are used to measure cash holdings: A firm's short-term liquidity and ability to withstand crises are reflected in its cash ratio (Correa-Caro et al., 2021). A more complete picture of the company's managed liquidity reserves is provided by the liquidity holding ratio, which takes into account short-term investments. The cash-to-sales ratio measures the sensitivity of cash reserves to revenue performance and shows how the firm reacts to shifts in its ability to produce cash internally (Almeida et al., 2004). The following formula is used to take measurements:

$$\text{Cash Ratio} = \frac{\text{Cash and cash equivalents}}{\text{Total Assets}}$$

$$\text{Liquidity Holding Ratio} = \frac{\text{Cash + Short-Term Investments}}{\text{Total Aset}}$$

$$\text{Cash to Sales Ratio} = \frac{\text{Cash and cash equivalents}}{\text{Sales}}$$

Capital Expenditure

Capital expenditure refers to financial outlays aimed at acquiring long-term assets that enhance a firm's productivity and capability. According to (Vogt, 1997), the internal cash flow of a company plays a significant role in determining its capital expenditure for investment purposes. (Cho et al., 2012) highlight that the financial market's reaction to capital expenditures largely hinges on the associated investment opportunities. This type of spending not only indicates the need for investments but also serves as a marker of a company's financial health and dedication to sustainable growth over time. Firms that are ramping up their investments typically require larger cash reserves to ensure stable funding. Evaluations can be conducted through the Capital Expenditure Intensity Ratio, which assesses the ratio of changes in fixed assets to the total amount of assets, indicating the level of investment activity of a company (Suntraruk, 2023). Additionally, the CapEx to Sales Ratio illustrates the relationship between capital expenditures and sales revenue, serving as a measure of how

investments rely on income (Sharma & Gupta, 2017). The formula used for these assessments is as follows:

$$\text{CapEx Intensity Ratio} = \frac{\text{Fixed assets (t)} - \text{Fixed assets (t-1)}}{\text{Total Assets}}$$

$$\text{CapEx to Sales Ratio} = \frac{\text{Capital Expenditure}}{\text{Total Sales}}$$

Cash Flow

Cash flow is a key factor that shows how well a company can create and manage its cash. (Mindhari et al., 2020) point out how crucial it is to have a good internal control system for handling cash flow, which helps maintain openness and responsibility. (Harahap, 2011) explains that cash flow includes the daily operations, investments, and funding activities, indicating how well a company can fulfill its commitments and run its activities. Consistent cash flow enhances efficiency in operations and lessens the necessity for keeping extra cash on hand. On the other hand, if cash flow is unstable, a company may choose to hold onto more cash to decrease risks related to liquidity. Cash flow demonstrates a company's ability to create and use cash from its operations, investments, and funding efforts, helping in the evaluation of its financial well-being and its ability to sustain its operations (Trisnawati & Wahidahwati, 2013). The calculation is done using the following formula:

$$\text{Operating Cash Flow} = \frac{\text{OCF (t)} - \text{OCF (t-1)}}{\text{OCF (t-1)}}$$

$$\text{Investment Cash Flow} = \frac{\text{ICF (t)} - \text{ICF (t-1)}}{\text{ICF (t-1)}}$$

$$\text{Funding Cash Flow} = \frac{\text{FCF (t)} - \text{FCF (t-1)}}{\text{FCF (t-1)}}$$

Leverage

Leverage measures how much debt is present in a company's capital structure. According to (Lang et al., 1996), leverage influences a company's capability to invest and expand; excessive leverage may restrict a company's flexibility by raising the risk of bankruptcy. (Adrian & Shin, 2010) point out that leverage illustrates the connection between liquidity and financial stability. (Santos & Veronesi, 2022) highlight that leverage makes a company's operations more sensitive to market changes and financing costs, which requires effective risk management. As a result, companies with high leverage often keep extra cash on hand to mitigate the risk of financial difficulties.

Leverage is assessed through the Debt to Assets Ratio, which shows the portion of assets funded by debt (Ananda, 2020), the Debt to Equity Ratio, which compares total debt against total equity to evaluate a company's capital framework (Jihadi et al., 2021), and Time Interest Earned, which measures the ability of operating profits to cover interest liabilities as an indicator of a company's strength against financial pressures (Sawir, 2005). These measurements are calculated using the following formula:

$$\text{Debt to Assets Ratio} = \frac{\text{Total Debt}}{\text{Total Asset}}$$

$$\text{Debt to Equity Ratio} = \frac{\text{Total Debt}}{\text{Total Equity}}$$

$$\text{Time Interest Earned} = \frac{\text{EBIT}}{\text{Interest Expense}}$$

Cash Conversion Cycle

The effectiveness of working capital is assessed by the cash conversion cycle. The time it takes to convert working capital into cash is calculated by combining the inventory, receivables, and payables periods in the cash conversion cycle, according to (Moss & Stine, 1993). The cash conversion cycle, according to (Zeidan & Shapir, 2017), is a representation of a company's operational efficiency in addition to its liquidity. The requirement for cash holdings is increased by a lengthy cash conversion cycle because the firm has operating costs for a longer amount of time before getting cash. On the other hand, a productive cash conversion cycle increases cash inflows and decreases reliance on outside funding.

The Receivable Collection Period, which measures the average time for collecting receivables, the Inventory Conversion Period, which reflects the speed at which inventory is converted into sales, and the Payable Deferral Period, which indicates the length of time a company delays payment to suppliers, are all used to measure CCC (Lyroudi & Lazaridis, 2000). The following formula is used to calculate CCC:

$$RCP = \frac{\text{Average Receivables}}{\text{Sales} / 360}$$

$$ICP = \frac{\text{Average Inventory}}{\text{COGS} / 360}$$

$$PDP = \frac{\text{Average Debt}}{\text{COGS} / 360}$$

Conceptual Framework

The framework of ideas is intended to enhance understanding in the study and demonstrates how the independent and dependent variables are connected. The visual representation of this research framework can be found in Figure 1 below:

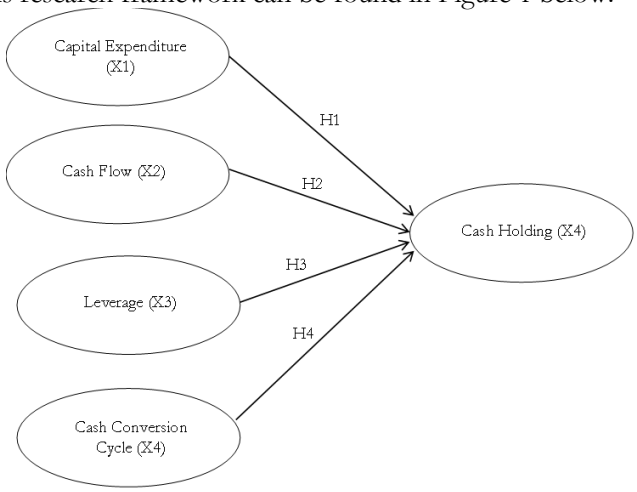


Figure 1. Conceptual Framework

H1: Spending on Capital Affects Cash Reserves Strongly
H2: Money Flow Influences Cash Reserves Greatly
H3: Debt Levels Have a Major Impact on Cash Reserves
H4: Cycle of Converting Cash Significantly Influences Cash Reserves

3. Method

This research employs a quantitative method. This method was selected as it offers objective assessments of the relationships among variables through numerical data extracted from financial reports of companies. The data utilized is secondary, drawn from the audited annual financial reports published via the Indonesia Stock Exchange. The study's population encompasses all manufacturing firms within the basic and chemical industry sectors for the period of 2022-2024. The sample was selected using purposive sampling based on the following criteria: (1) the company has remained listed on the IDX for three consecutive years; (2) it publishes financial reports for the 2022-2024 timeframe; (3) it presents financial reports in rupiah; (4) it has reported profits for three continuous years. Consequently, 23 companies were identified, resulting in a total of 48 observations. Data were gathered from the official IDX website as well as from the official websites of the selected companies.

This study examines one dependent variable, cash holding, alongside four independent variables: capital expenditure, cash flow, leverage, and cash conversion cycle. All variables are assessed using financial ratios derived from the companies' annual financial statements. Cash holding is evaluated through the cash ratio, liquidity holding ratio, and cash-to-sales ratio. Capital expenditure is gauged using the capex intensity ratio and capex-to-sales ratio. Cash flow is measured by the operational cash flow, investment cash flow, and financing cash flow values. Leverage is assessed using the debt-to-assets ratio, debt-to-equity ratio, and times interest earned ratio. Finally, the cash conversion cycle is evaluated using the receivable collection period, inventory conversion period, and payable deferral period.

Data processing and analysis were executed using SEM–PLS via SmartPLS software version 3. The analytical process consisted of two phases: the measurement model and the structural model. During the measurement model phase, the validity and reliability of the constructs were examined through loading factor evaluations, AVE assessments, discriminant validity tests, and CR calculations. The structural model was analyzed to assess the causal relationships among variables by estimating the path coefficients, significance values, and the coefficient of determination, which indicates the capacity of the independent variables to account for the dependent variable under consideration.

4. Results and Discussion

Outer Model

a. Convergent Validity

Tabel 1. Results of Convergent Validity Analysis 1

Indikator	Cash Flow	Capital Expenditure	Cash Conversion Cycle	Cash Holding	Leverage
ICF	0.346				
OCF	0.91				
FCF	0.279				
CR				0.95	
CSR				0.758	
CapEx IR		0.98			
CapEx SR		0.596			
DAR					0.514
DER					-0.514
ICF			0.892		
LHR				0.993	
PDP			0.92		
RCP			0.764		
TIER					0.701

convergent validity analysis, each variable is represented by a collection of indicators, each of which has a loading value that indicates how well it contributes to its construct. The CapEx Intensity Ratio, which has a loading value of 0.980, represents the capital expenditure variable, whereas the CapEx to Sales Ratio indicator has a loading value of 0.596, which falls short of the acceptable threshold of > 0.70. Only the OCF indicator satisfies the validity requirements with a loading value of 0.910 in the cash flow variable, while the ICF (0.346) and FCF (0.279) indicators are below the minimum limit and do not meet the validity criteria.

The TIER indicator is the only one of the leverage variables that satisfies the criteria, with a loading value of 0.701. The DAR has a loading value of 0.514, while the DER has a negative loading value (-0.514), which means that neither indicator complies with the convergent validity requirement. The cash conversion cycle variable is represented by three indicators that all satisfy the validity requirements: the ICP with a loading of 0.892, the PDP with a loading of 0.920, and the RCP with a loading of 0.764. They all meet the validity requirement and are acceptable for use in the model.

In contrast, the CR indicator, which measures cash holdings, displays a loading value of 0.950, an LHR value of 0.993, and a CSR value of 0.758, which means that all indicators in this construct satisfy the validity requirements since they are all above 0.70. As a result, any indicators with a loading score of less than 0.70 should be removed from the model, and a re-analysis using the PLS Algorithm should be conducted to produce a more reliable and accurate construct estimate.

Table 2. Results of Convergent Validity Analysis 2

	Cash Flow	Capital Expenditure	Cash Conversion Cycle	Cash Holding	Leverage
OCF	1.000				
CR				0.920	
CSR				0.811	
CapEx IR		1.000			
ICP			0.899		
LHR				0.985	
PDP			0.918		
RCP			0.751		
TIER					1.000

Referring to Table 2, once we removed indicators that failed to satisfy the validity criteria in the previous phase, all the remaining indicators displayed loading values greater than 0. 70,

thus fulfilling the conditions for convergent validity. The capital expenditure variable is represented through the CapEx Intensity Ratio, which serves as a valid measure for assessing capital outlay of a firm. The cash flow variable is indicated by the OCF metric, which has successfully met the validity standards. The leverage variable is represented by the Time Interest Earned metric, which stands as the sole valid metric following the filtering process.

The cash conversion cycle variable is depicted through three different indicators, all of which have satisfied the validity standards: Inventory Conversion Period, Payable Deferral Period, and Receivable Collection Period. Additionally, the two indicators utilized for the cash holding variable, specifically the Cash Ratio and the Liquidity Holding Ratio, have been established as valid measures of the company's liquidity position. All remaining indicators in the second phase have satisfied convergent validity standards and are available for testing the structural model in future analyses.

Table 3. AVE

	AVE
Cash Flow	1.000
Capital Expenditure	1.000
Cash Conversion Cycle	0.738
Cash Holding	0.826
Leverage	1.000

Looking at Table 3, the results of the AVE test reveal that each hidden variable—capital spending, cash flow, debt level, cash conversion cycle, and cash reserves—has AVE scores exceeding the 0. 50 limit. The strong AVE scores for every construct show that the measures used can effectively clarify the variation of the construct. This result suggests that every hidden variable has fulfilled the criteria for convergent validity, making them appropriate for the analysis of the structural model.

b. Discriminant Validity

Table 4. Forner Locker Criterio

	Cash Flow	**Capital Expenditure**	**Cash Conversion Cycle**	**Cash Holding**	**Leverage**
Cash Flow	1				
Capital Expenditure	0	1			
Cash Conversion Cycle	0.021	-0.009	0.859		
Cash Holding	0.216	0.302	-0.188	0.909	
Leverage	0.114	-0.003	-0.108	0.488	1

According to Table 4, the outcomes of the Fornell–Larcker Criterion test reveal that the square root of the AVE for each latent variable surpasses the correlation value between the latent variables in the respective row and column. The values for capital expenditure, cash flow, leverage, cash conversion cycle, and cash holding each exhibit diagonal values that are greater than their correlations with other constructs. This implies that each latent variable effectively distinguishes itself from the other variables within the model, thereby ensuring that the entire construct satisfies the discriminant validity requirements as outlined by the Fornell–Larcker guidelines. Consequently, the research model is deemed to possess strong discrimination capabilities and is suitable for advancing to the structural model testing phase.

Reliability

Table 5. Composite Reliability

Variabel	Cronbach's Alpha	Composite Reliability
Cash Flow	1	1
Capital Expenditure	1	1
Cash Conversion Cycle	0.833	0.894
Cash Holding	0.891	0.934
Leverage	1	1

"All latent constructs had composite reliability and Cronbach's Alpha values greater than 0.70, as shown in Table 5. This suggests that all of the components, such as capital expenditures, cash flow, leverage, cash conversion cycle, and cash holdings, have a high and consistent level of reliability. All of the constructs were deemed to be trustworthy and appropriate for use in the subsequent phase of testing the structural model.

Inner Model

Table 6. R-Square

Variabel	R Square	R Square Adjusted
Cash Holding	0.376	0.338

According to Table 6, the R-Square value stands at 0. 376, signifying that the factors of capital expenditure, cash flow, leverage, and cash conversion cycle can account for 37. 6% of the differences in cash reserves within manufacturing firms in the basic and chemical industry sectors. Additionally, the Adjusted R-Square value of 0. 338 shows that, when considering the number of variables and the size of the sample, the model still explains 33. 8% of the fluctuations in cash reserves. This means that around 62. 4% of the changes in cash holdings are affected by elements outside of the scope of this research model.

Path Coeffisien

Table 7. Path Coeffisien

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Cash Flow → Cash Holding	0.167	0.153	0.089	1.874	0.062
Capital Expenditure → Cash Holding	0.303	0.257	0.258	1.175	0.241
Cash Conversion Cycle → Cash Holding	-0.14	-0.149	0.057	2.44	0.015
Leverage → Cash Holding	0.455	0.474	0.149	3.048	0.002

Looking at table 6, the analysis of how spending on capital affects the amount of cash held, shown by the CapEx Intensity Ratio, has an initial sample value of 0. 303 and a p-value of 0. 241, which is greater than 0. 05. Therefore, we can say that having positive capital spending does not significantly impact cash holdings. The relationship between cash flow and cash holdings reveals an initial sample value of 0. 167 with a p-value of 0. 062. Since this p-value is also above the significance level of 0. 05, we can conclude that a positive cash flow does not significantly affect cash holdings.

The Time Interest Earned indicator, which is used to gauge leverage testing, yields an original sample value of 0.455 and a p-value of 0.002 0.05. In summary, leverage has a major beneficial impact on cash holdings. The cash conversion cycle variable, which is represented by ICP, PDP, and RCP, has an original sample value of -0.130 and a p-value of 0.015 0.05. It may be concluded that cash holdings are significantly negatively impacted by the cash conversion cycle.

5. Comparison

Capital Expenditure has a significant effect on Cash Holdings

The findings of the study indicate that capital spending does not significantly impact the cash reserves of manufacturing firms in the basic and chemical industries. This supports the notion that decisions regarding capital expenditure do not always have a direct link to a company's available cash. When investing, companies have several financing options, meaning that capital spending does not inherently deplete cash assets.

These findings are in line with earlier studies by (Cindy et al., 2023; Hengsaputri & Bangun, 2020; Kudu & Salim, 2021), all of which concluded that capital expenditure does not have a significant influence on cash holdings. Such consistency suggests that capital spending is not a crucial element in determining how much cash a company maintains. Furthermore, capital expenditure does not necessarily lead to a reduction in available cash, as firms can fund their investments through external means like borrowing or using retained earnings, or even a mix of both.

Cash Flow has a significant effect on Cash Holdings

The findings from this research show that having extra cash flow does not really affect how much cash a company keeps on hand. This means that just because cash flow goes up, it doesn't mean that a company will also increase its cash reserves. In practical terms, many businesses in the study use their operational cash flow to pay for everyday operations, cover working capital needs, invest, and settle debts, so not all of this cash flow ends up sitting unused.

The conclusions of this study are different from earlier research. (Suci & Susilowati, 2021) pointed out that companies with good cash flow often manage to grow their cash reserves, which helps them maintain liquidity. Similarly, (Siregar et al., 2022) discovered that cash flow has a major effect on liquidity in companies that deal with basic goods and chemicals. Research by (Alfira et al., 2021) also suggests that solid cash flow leads companies to keep more cash on hand to lessen the risks of facing liquidity troubles. These variations in results suggest that the differences in industry characteristics, how companies spend their money, and their working capital needs in this study likely drive the use of cash flow for productive purposes and short-term payments instead of retaining a lot of cash. The way companies operate and their financial plans are key factors that set the findings of this study apart from those of earlier studies.

Leverage has a significant effect on Cash Holdings

The findings of the research indicate that leverage significantly positively impacts cash reserves. This suggests that firms with elevated levels of debt generally maintain more cash as a safeguard against default risk. This conclusion aligns with the trade-off theory, which proposes that higher debt levels motivate firms to preserve sufficient cash reserves to guarantee timely payments of interest and principal. When a company's funding structure is predominantly debt-based, it is more inclined to uphold its liquidity to reduce the risk of financial hardship."

In comparison to prior studies, the findings of this one demonstrate discrepancies. According to (Dirvi et al., 2020), debt levels were not a key determinant of firms' cash retention strategies because leverage had no discernible impact on cash holdings. (Kurniawan & Tanusdjaja, 2020) made similar observations, noting that leverage had no impact on cash holdings or other factors. According to research by (Zefanya Elnathan & Susanto, 2020), leverage has little effect on a company's incentive to boost its cash holdings. The findings of this research, however, support the conclusion of (Romel & Ekadjaja, 2023), who demonstrated that businesses with significant leverage really keep more cash in order to mitigate the danger of financial hardship. As a precautionary step against the financial risks associated with high debt levels, these results, which are consistent with some prior research, show that manufacturing firms in the basic and chemical sectors have significant operational liquidity needs and liability loads, causing them to take a cautious approach by raising cash holdings.

Cash Conversion Cycle has a significant effect on Cash Holdings

The findings from the research indicate that the cash conversion cycle has an adverse effect on cash reserves. This suggests that the longer a company retains cash as inventory or accounts receivable, the smaller the amount of cash it can keep on hand. An extended cash conversion cycle suggests poor operational performance. Businesses require additional time to recover the money spent in production and sales, which restricts the cash available for holding.

This conclusion aligns with certain earlier studies. (Faujiah et al., 2021) noted that there was no meaningful impact of the cash conversion cycle on cash reserves, implying that it is not a crucial element in a company's cash management strategy. On the other hand, the outcomes of this study correspond with the findings of (Rosyidah & Santoso, 2018) and (William & Fauzi, 2013), which demonstrated a significant negative relationship. A longer cash conversion cycle leads to an increased amount of cash being engaged in business operations, ultimately diminishing cash reserves. Additionally, research conducted by (Wulandari & Setiawan, 2019) found a meaningful effect, supporting the idea that improving efficiencies in the cash conversion cycle can enhance a company's capacity to hold larger sums of cash.

6. Conclusion

Based on a thorough examination of manufacturing businesses in the basic and chemical sectors from 2022 to 2024, this research has effectively pinpointed the key elements that affect cash reserves. The findings indicate that not all factors greatly affect the policy for holding cash, as internal financial situations, funding types, and how well working capital is managed do play a role in cash reserves. This confirms that how much cash a company decides to keep is part of its strategy for staying financially stable and handling long-term risks.

The results from testing the hypotheses show that spending on capital projects and cash flow do not have a strong effect on cash reserves. Money spent on capital projects is generally directed towards long-term investments, so it doesn't directly influence the amount of cash held. On the other hand, cash flow is mostly used for day-to-day operations and paying off debts, and therefore isn't fully saved as cash. However, it was revealed that leverage has a significant impact on cash reserves, suggesting that companies with higher levels of debt usually hold onto more cash to reduce the risk of failing to meet obligations. Additionally, the cash conversion cycle negatively affects cash reserves significantly, meaning that if cash is tied up longer in inventory and amounts owed by customers, there will be less cash available for savings. Thus, how efficiently working capital is managed is vital for keeping liquidity.

The results of this study carry crucial messages for business leaders. Companies should work on enhancing how they manage their working capital, especially by speeding up the cash conversion cycle. They should also take into account their levels of debt when creating policies for cash retention to lower financial risks.

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