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Strategic Treasury Management in Capital-Intensive Industries

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Abstract: Efficient treasury management represents a critical component of financial administration in any organization, directly impacting financial balance, stability, and overall performance. This paper provides a detailed analysis of the treasury operations recorded in the accounting of S.C. COMVEX S.A., a leading company in Romania's port industry. The study highlights the company's strategies for managing operational, investment, and financing cash flows, emphasizing the challenges and risks associated with financial management in a capital-intensive and highly dynamic sector. Key findings reveal that operational activities generate positive cash flows, underscoring the efficiency of the company's core processes. However, significant investments in infrastructure and equipment, along with debt repayments, create liquidity pressures. The dependency on external funding further amplifies financial risks, particularly under volatile economic conditions. This research proposes a series of measures to improve liquidity management, including optimizing the cash conversion cycle, strategically planning investments, creating a dedicated liquidity reserve fund, forecasting cash flows accurately, and implementing stricter debt control policies. The study concludes that strategic treasury management is pivotal not only for ensuring the day-to-day financial stability of the company but also for supporting long-term growth and maintaining competitiveness in the global port logistics sector. These findings provide valuable insights for practitioners and researchers interested in financial management practices within strategic and capital-intensive industries.

Keywords: Cash flow; External financing; Strategic investments; Financial liquidity

JEL Classification: O16, E44, G32

1. Introduction

Treasury management represents a central concept in the financial administration of an organization, ensuring the optimal flow of monetary resources required for current operations, the execution of strategic investments, and the repayment of financial obligations. In a global economic environment characterized by volatility, geopolitical instability, and inflationary pressures, this domain becomes increasingly critical for companies operating in capital-intensive sectors, such as the port industry. Such industries require massive investments in infrastructure and equipment, with returns on invested capital

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often delayed due to the long-life cycles of projects that can be influenced by external factors such as fluctuations in international trade or environmental regulations.

S.C. COMVEX S.A., the largest solid bulk cargo terminal in the Port of Constanța, serves as a compelling example of how a company operating in a strategic sector can be exposed to financial pressures. As a key player in Romania's maritime logistics, the company faces numerous challenges: the continual need to modernize infrastructure and equipment, maintaining regional competitiveness against other Black Sea ports, and adapting to increasingly stringent international environmental regulations. Simultaneously, it must manage its cash flows to finance current operations, meet debt repayments, and secure the liquidity required for long-term investments. Treasury management in such a complex environment is not merely an operational challenge but also a strategic priority.

As suggested by the academic literature, a well-grounded treasury policy can cushion economic shocks, reduce dependency on external financing, and support a company's financial stability. In this context, cash flow becomes the organization's lifeblood, while financial strategy must act as a safety net that sustains business health across economic cycles. This study aims to analyze in detail the cash flow management of S.C. COMVEX S.A., focusing on three fundamental directions: the analysis of operational, investment, and financing cash flows. Each of these components presents both opportunities and risks for financial managers. Beyond assessing past performance, the study proposes practical solutions for treasury optimization, offering a model for adjusting the Cash Conversion Cycle, planning investments, and implementing advanced financial control methodologies to enable rapid responses to market challenges. Integrating modern methodologies into the financial practices of a company operating in strategic infrastructure represents both a challenge and an unprecedented opportunity. Cash flow analysis conducted for S.C. COMVEX S.A. included detailed financial modeling correlated with investment programs in the port sector to evaluate the financial role within the context of operations and long-term strategic decisions. The study underscores the notion that treasury should no longer be treated solely as an accounting function but rather as a decision-making center capable of influencing the foundation of competitiveness. This paper draws upon a combination of empirical studies from the company's financial data, case studies, and current theoretical perspectives from the specialized literature. The analysis highlights the critical role of treasury management in shaping the future of companies in capital-intensive industries and demonstrates how strategic financial management can contribute to strengthening economic resilience and developing sustainable long-term operations. Consequently, strategic treasury management can be viewed not only as a functional necessity for large-scale infrastructure and sectors but also as an essential strategy for safeguarding liquidity, mitigating risks, and fostering economic growth. This paper will thoroughly explore the comprehensive analytical framework and present conclusions that could serve as reference points for similar companies in the industry, as well as for financial practitioners seeking to implement strategic solutions in the context of dynamic economic markets.

2. Specialized Literature

This branch of financial management focuses on the proactive process by which organizations manage cash flows, available funds, and risk exposures in such a way that both short-term stability and long-term strategic objectives are supported. In capital-intensive industries such as the port sector, these principles play a crucial role, as the activities of these organizations require significant investments and a solid financial capacity to sustain dynamic operations. The specialized literature emphasizes that treasury management is an essential discipline for ensuring the financial sustainability of organizations.

Gitman (2003) considers that strategic cash flow management involves a constant balance between available liquidity, current debts, and investment needs. This balance constitutes the foundation for a company's healthy functioning, reducing the risks of a liquidity crisis while simultaneously ensuring opportunities for strategic investments. Gitman's (2003) work, *Principles of Managerial Finance*, highlights the importance of the Cash Conversion Cycle (CCC) as a fundamental element in efficient treasury management. It reflects the significance of managing the time taken for the company to transform its financial inputs into operational revenues. The CCC is one of the most frequently mentioned methods for quantifying the efficiency of treasury management. Ross, Westerfield, and Jordan (2020, p. 549), in their work, explain that in capital-intensive industries such as the port industry, prolonged negative cash flow can put immense financial pressure, particularly in the context of major investment projects. Consequently, Ross et al. (2020) stresses the necessity of reducing the CCC through stricter inventory control policies, speeding up receivables collection, and extending payment terms with suppliers. This concept is essential to understanding how companies like S.C. COMVEX S.A., analyzed in this study, can improve treasury efficiency through strategic coordination of operational and financial cash flows. Thus, reducing the CCC becomes not merely an operational measure but also a financial strategy designed to enhance competitiveness and reduce reliance on external financing. According to Ross, Westerfield and Jordan (2020), the CCC indicates how quickly a firm can transform operational expenditures into revenues collected from customers. Reducing the Cash Conversion Cycle is critical for companies in capital-intensive industries because they are characterized by extended payment terms, substantial investments, and risks associated with unstable cash flows. Damodaran (2019) supports the analysis of cash flows in S.C. COMVEX S.A. by offering a theoretical framework applicable to companies operating in capital-intensive industries. By highlighting the fact that managing cash flows becomes more challenging in these sectors, the work emphasizes the necessity of careful financial planning and the use of dedicated tools to mitigate associated risks. For S.C. COMVEX S.A., significant investments and long capital recovery cycles are common characteristics of the port industry, which amplify exposure to financial volatility. Moreover, the literature underscores that while positive cash flows are fundamental to any business, managing them becomes increasingly complex in capital-intensive sectors. Here, capital is "locked" long-term in the form of infrastructure and equipment, leaving the company vulnerable to fluctuations in revenues generated by current activities. Treasury management in this context requires not only a reactive approach but also a strategic component—anticipating risks and adapting to economic changes. One of the most prominent challenges for treasury management in capital-intensive industries is financing major investments. Armenter and Hnatkovska (2020) argue that, for companies operating with costly infrastructures—such as those in renewable energy, manufacturing, or the port industry—the pressure of financing long-term projects can severely affect the company's liquidity. These firms often rely on external financing, whether through corporate bonds, long-term bank loans, or operational leasing. The issue becomes more acute during periods of economic volatility when financing conditions deteriorate. In such situations, companies may become over-leveraged, increasing financial costs and tightening their competitive position. This creates a dangerous dependency on external financial market cycles, necessitating that treasury management compensates by establishing efficient liquidity management mechanisms. One of the most widely discussed approaches in specialized literature involves optimizing the Cash Conversion Cycle (CCC), a crucial indicator for evaluating financial efficiency. According to studies by Hillier and his collaborators (2020), the CCC comprises three main components: the average duration of accounts receivable collection, the time needed to sell inventory, and the average time for accounts payable to be settled. Although each of these parameters contributes to the smooth functioning of an organization, companies in capital-intensive industries must pay special attention to optimizing supplier relationships and minimizing capital tied up in inventory. For example, in the port industry, operators must manage large

volumes of raw materials and equipment. Any supply chain disruption or payment delay can affect the entire operation, particularly when operational cycles are connected to complex logistical networks. Another frequently discussed topic in the literature is liquidity risk. In capital-intensive industries, where cash flows can be unpredictable, poorly planned treasury management can result in liquidity shortfalls that threaten the financial stability of the company. The International Federation of Accountants (IFAC, 2020) highlights the need for a robust financial forecasting system based on “worst-case” scenario analysis and the creation of a dedicated liquidity reserve fund. Furthermore, the literature underscores the dangerous dependence on external financing. In an unpredictable global economic environment, access to bank loans or bond markets can become uncertain, and borrowing costs may rise. Recent studies (Taylor, 2021) recommend diversifying financing sources and utilizing alternative instruments such as factoring or issuing bonds in international markets, which offer greater financial flexibility. An increasingly discussed theme in contemporary literature is the impact of technology on treasury management. According to ISACA (2022), modern treasury management software enables companies to monitor real-time liquidity, automate payment reconciliation, and simulate financial scenarios for variables such as foreign exchange rates or interest costs. The use of “big data” technologies and artificial intelligence also facilitates the detection and management of risks more effectively than traditional methods. More and more companies in capital-intensive industries are adopting digital solutions to streamline financial operations. In the port sector, for instance, the implementation of automated cash flow forecasting systems allows for the creation of detailed reports that support strategic decisions. Specialized literature provides a robust framework for understanding the complexity of treasury management in capital-intensive industries. Its main conclusions highlight the importance of synchronizing cash flows, optimizing the cash conversion cycle, and utilizing diverse financial instruments to mitigate the risks associated with significant investments. In the context of emerging economic and technological trends, digitalization becomes a necessity for companies aiming to maintain long-term competitiveness. Consequently, the literature makes it clear that strategic treasury management transcends mere accounting administration, evolving into a key tool for supporting organizational growth and financial stability.

3. Research Methodology

Efficient treasury management represents a central element in maintaining the financial stability and economic performance of companies operating in capital-intensive industries. These sectors are characterized by complex financial flows, substantial investments, and heightened sensitivity to the volatility of global markets. In this context, in-depth, structured, and result-oriented research forms the foundation for building viable strategic recommendations. The research methodology employed in the study “Strategic Treasury Management in Capital-Intensive Industries” highlights the importance of combining exploratory and descriptive techniques to analyze treasury management at S.C. COMVEX S.A., a leader in the port industry in Romania. The study proposes an integrated research model based on three essential dimensions: qualitative research, quantitative research, and longitudinal analysis. Each dimension aims to capture a holistic perspective of the factors influencing treasury strategy in a challenging business environment.

Qualitative research facilitated an understanding of the operational mechanisms within a capital-intensive industry by exploring the specific financial context of S.C. COMVEX S.A. This was complemented by descriptive quantitative analysis, which aimed to objectively and numerically evaluate financial flows, liquidity indicators, and the impact of investment decisions on financial stability.

Additionally, a longitudinal analysis of financial data for the 2018–2022 period provided a temporal representation of the effects of strategies and changes applied in the treasury system.

This combined approach offers the advantage of generating complex and well-grounded conclusions. It provides both the strategic framework necessary for sector-wide generalizations and a detailed, close-up view of financial management decisions in a specific case study.

3.1. Objectives of the Research

A clear structuring of research objectives is critical for the success of the study. This paper aims to achieve three primary goals:

1. **Identifying key factors influencing treasury efficiency:** This objective focuses on cash flows, resource allocation, and financial risk management within a capital-intensive company.
2. **Determining financial vulnerabilities:** The study examines the impact of external debt and global economic dynamics on liquidity, highlighting challenges in unstable, demanding environments.
3. **Proposing strategic solutions:** The ultimate goal of the research is to formulate clear and applicable recommendations for optimizing liquidity, reducing risks, and maximizing sustainable long-term profitability.

By addressing these directions, the research finds relevance both in a theoretical framework and practical application, supporting the internal stakeholders (financial department) and external stakeholders (investors, commercial partners) of the company.

3.2. Treasury Management in Capital-Intensive Industries

Treasury management represents a fundamental pillar of financial health in a capital-intensive industry, where cash flows are built upon large financial transactions, substantial investments, and complex operational risks. The complexity of treasury operations is amplified in strategic industries, such as the port sector, where market volatility and the constant need to modernize infrastructure exert pressure on a company's liquidity. With this reality as a starting point, the present study proposes a structured approach to treasury analysis through research designed to identify fundamental factors, analyze functional vulnerabilities, and develop viable strategies for optimizing financial flows.

3.3. Research Process

The research process began with an exploratory phase focused on gathering relevant data to understand how treasury functions within S.C. COMVEX S.A. Primary sources included external and internal financial statements (balance sheets, cash flow statements, investment, and financing data) for the 2018–2022 period. These data were complemented by industry reports on trends in the port sector, as well as accounting regulations and reporting standards (IFRS). An important component of the research involved semi-structured interviews with representatives of the company's financial department. These discussions clarified the decision-making context of treasury processes, highlighting unique challenges related to the seasonality of operations, foreign exchange risk management, and the impact of large investment projects.

A central stage of the research was the analysis of the collected data, which employed diverse methods for evaluating treasury performance:

- **Quantitative:** Financial formulas and indicators were used to analyze financial flows. For instance, the calculation of the Cash Conversion Cycle (CCC) revealed financial mismatches between supplier payments and client collections, identifying opportunities for its reduction.
- **Qualitative:** Operational process analysis and strategic decision-making complemented quantitative analysis by focusing on subjective factors influencing the use of funds.

4. Case Study: S.C. COMVEX S.A.

Treasury management in the context of capital-intensive industries is among the most complex financial processes, with significant implications for financial stability, investment plans, and a company's competitiveness. The case study conducted on S.C. COMVEX S.A., a leader in the port industry in Romania, explores the financial challenges and strategies for treasury optimization within a sector operating at the intersection of high investment requirements and global economic volatility.

S.C. COMVEX S.A. operates in the Port of Constanța, the largest seaport in Romania and one of the most significant logistics hubs in Southeast Europe. Its activities center on handling bulk solid cargo, including iron ore, coal, and fertilizers, with its extensive infrastructure and high-performance equipment enabling large volumes of goods to be processed. However, the nature of port activities makes S.C. COMVEX S.A. a classic example of a capital-intensive company. The costs of acquiring, maintaining, and modernizing port equipment (e.g., heavy-duty cranes or automated conveyors), along with constant investments in terminal infrastructure, place significant pressure on cash flows. Additionally, the company's dependence on global economic cycles and international demand for maritime trade creates significant risks for available liquidity.

S.C. COMVEX S.A. addresses two major financial dimensions:

- **Managing current operations:** Liquidity generated from operational activities must cover a variety of operational costs, including payments to suppliers, equipment maintenance, employee salaries, and fees imposed by port and fiscal authorities.
- **Financing strategic investments:** The development of terminals and modernization of equipment requires significant financial resources, partly funded through operational cash flows and often through bank loans or other external sources.

4.1. Key Challenges Identified

The study highlighted several challenges affecting the company's treasury management:

- **Insufficient liquidity to simultaneously support operations and investments:** Although positive cash flows are generated from operational activities (e.g., cargo handling and port infrastructure usage), these are insufficient to fully cover the liquidity needed for major investments, such as new equipment acquisitions. For example, in 2022, a significant terminal modernization placed pressure on current cash flows.

- **Seasonality of revenues:** The volume of cargo handled fluctuates according to international demand, leading to revenue seasonality and exposing the company to periods of low economic activity.
- **Dependence on external financing:** To address liquidity shortages for investments, the company frequently relies on bank loans or financial leases. While effective in the short term, these instruments significantly increase financial costs.
- **Unfavorable Cash Conversion Cycle (CCC):** The time lag between paying suppliers and collecting receivables from clients reduces available liquidity. The study found that clients benefited from extended payment terms (up to 60 days), while suppliers required payment within 30–45 days, creating a financial mismatch.

In conclusion, the research methodology employed in this study provides a robust foundation for analyzing the challenges and opportunities in treasury management at S.C. COMVEX S.A. The combination of qualitative, quantitative, and longitudinal methods offers a comprehensive understanding of the financial mechanisms in a capital-intensive industry, ensuring that strategic recommendations are both actionable and tailored to the specific needs of the company. All challenges were analyzed through a structured process, using key financial indicators to provide an objective perspective on the treasury situation. The analysis included indicators such as the current liquidity ratio, asset turnover ratio, operational net cash flow analysis, and the cash-to-cash cycle (CCC). The main conclusions were as follows:

- **Current Liquidity Ratio:** During the analyzed period, the current liquidity ratio remained around 1.1, indicating a modest capacity to cover current liabilities using current assets. Within this period, available funds were immediately used to cover mandatory payments, with reserves rarely being accumulated.
- **Negative Investment Cash Flows:** As a result of significant investments in the port terminal, cash flows from investment activities remained negative. For instance, in 2022, the acquisition of port equipment resulted in a net cash outflow of 1.2 million RON without yielding an immediate positive impact on liquidity.
- **Dependence on External Sources:** An 18% increase in interest costs between 2020 and 2022 highlights a continued reliance on financial loans and exposure to the risk of rising interest rates in both external and domestic markets.

4.2. Strategic Solutions

The analysis of financial results and operational processes inspired the formulation of several strategic solutions:

- **Reducing Collection Periods:** By introducing discount policies for early payments, the company can shorten the collection period for receivables from clients, bringing it down from 60 days to 45 days. This change generates a liquidity surplus that can be utilized for short-term activities without resorting to costly loans.
- **Extending Payment Terms to Suppliers:** Negotiating longer payment terms—from 30 days to 45 or 60 days—can balance cash flow mismatches and ensure healthier short-term liquidity.

- **Creating a Reserve Fund:** Gradually establishing a reserve fund equivalent to two months of operational expenses would allow the company to manage financial deficits during challenging periods.
- **Phasing Investments:** Instead of allocating liquidity to a single large-scale project, investments could be scheduled in multiple stages, ensuring that current activities are not financially jeopardized.
- **Optimizing ERP Systems for Financial Forecasting:** By adopting a modern ERP system, S.C. COMVEX S.A. could improve cash flow forecasting, helping prevent financial bottlenecks and ensuring smoother operational planning.

5. Conclusion

The case of S.C. COMVEX S.A. highlights the complexity of treasury management in a capital-intensive industry, where financial challenges intertwine with critical operational demands. This case study demonstrates that, through the implementation of strategic solutions – such as reducing the cash conversion cycle, optimizing supplier relationships, and creating financial reserves – a company can overcome the vulnerabilities of its treasury system and ensure long-term stability. This study provides a solid framework for financial decision-makers in other companies operating in similar industries and underscores the strategic role of treasury management not merely as an administrative function but as a driving force for sustainable growth.

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