

Current trends in treasury management: A systematic review

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ABSTRACT

Treasury management is a determining function within organizations because financial performance depends on the adequate optimization of the resources available. A systematic review was developed with the objective of identifying the main trends in current treasury management. In this process, the PRISMA methodology was used to carry out a rigorous search for relevant documents, of which 18 articles obtained mainly from Scopus and Scielo were selected. Finally, the importance of treasury management for the execution of other company activities was highlighted, as well as new trends that make use of computer tools, show interest in sustainability, calculate risks through automated processes and use models of simulation.

Keywords: Treasury management, trends, liquidity, cash flow.

INTRODUCTION

Treasury management is developed from an administrative approach aimed at generating liquidity immediately, that is, having money in a timely manner for any company need (Delfin & Rodríguez, 2022). It emphasizes efficiency of cash management within the company, which is possible with computer systems and detailed reports that provide valuable information to prevent market risks (Parra & Ferrer, 2020). Such adverse situations can be addressed with efficient treasury management in conjunction with management to prioritize compliance with the payment chain and the relationship with stakeholders or interest groups involved (Rivera & Erazo, 2021).

This type of management requires support of information systems, which is why workers depend on computer technology tools. Automated financial markets prioritize both the collection of external and internal data, information is transferred from the bank's storage to the company and vice versa (Earl & Ong, 1987; Bhaskar & Stamper, 1991). Likewise, treasury management is affected by fiscal policies regarding financial flows and corporate structure (Stewart, 2005), for which a diagnosis of environment must also be considered. The profitability factor is difficult to determine, but it is key to take into account which restrictions would be obstacles to external financing; this aspect takes on greater relevance in young companies use new technologies (Decamps & Villeneuve, 2022).

Among the characteristics of this management, they focus on bank accounts, the ability to forecast cash flows, financing resources and investment capacity of reserves; organizations with financial restrictions and high coverage needs require liquidity. One of the main challenges is the fragmented structure that makes it difficult to coordinate between debts and maintain liquidity (Coskun & Segundo, 2021; Kirch & Terra, 2020). Therefore, there is an assessment of the solvency or non-solvency of companies in the future, which is why they require risk management according to their characteristics (Rodríguez & López, 2020).

The treasury department is vital since it relates to other subsystems so that they can perform correctly and carry out projects that require financing. In the Latin American public sector, for example, there is great influence from the government model and its external obligations (Mavila et al., 2021). In the private sector, treasury

management is vital for procedures with other companies and banking entities, which allows the organization to meet standards and achieve its objectives through its resources (Haz & Fiallo, 2022). In times of crisis, as happened with the pandemic, this department faced illiquidity due to situations that required immediate intervention (He et al., 2022), an episode that can be repeated with severe changes in the global environment.

Financial information from the treasury area is key to any strategic decision, as it assesses the solvency and performance of the company in terms of profitability, in addition to supporting debt repayment (Noury et al., 2020) and allowing investors to assess credit risks based on it depending on volatility of cash flow (Shaker & Elnahass, 2024). These processes rely on computer technology to have real data and to present it in a simple way for analysis (Carreño et al., 2021). However, recent studies suggest that during market tensions these funds should have fewer outflows, maintaining additional liquidity as protection from a possible withdrawal of investors (Witmer, 2019) and regulatory compliance with regulations in a transparent and auditable manner.

The state of the art shows there is special attention in treasury management to demarcate different functions of the company based on available resources, especially in cash flow metrics, as a reliable predictor of solvency or probability of bankruptcy of the company (Lambreton, 2023). On the other hand, Cook, Kieschnick and Moussawi (2021) propose an aspect of this management focused on volatility and future obligations regarding cash holdings, while Gupta and Krishnamurti (2023) focus on relationship between corporate governance practices and organization's cash holdings.

Currently, treasury management is a strategic and crucial area for cash management in companies, but it is also complemented by financial technology and is adapting to complexity of the financial market (Yao & Luo, 2022). The importance of this study is that it provides a comprehensive review of treasury management in today's corporate world and how it influences other crucial aspects of companies. In addition, an exploration of current trends that benefit the financial flow available to allocate resources to different company obligations and investments was carried out, and the main challenges in this field were highlighted.

METHODOLOGY

The systematic review was conducted under the guidelines of the PRISMA methodology, a transparent documentation tool that is presented through a visual flow that exposes relevant and updated evidence related to the topic of study (Page et al., 2021). On the other hand, the literature review carried out was characterized by its synthesis of information, which was result of a rigorous, objective and reproducible search in future research (Clarke, 2011).

The search was carried out in recognized databases such as Scopus, Scielo and Google Scholar. As part of inclusion criteria, peer-reviewed academic articles were considered, with a publication range of no more than five years old, written in Spanish and English and relevant to the research. As for exclusion criteria, records with information not applicable in the business environment, that exceed the period of age or were not peer-reviewed were left aside.

The search terms used included keywords such as “Treasury management”, “Cash Flow trends”, “Cash flow management” and “Liquidity”.

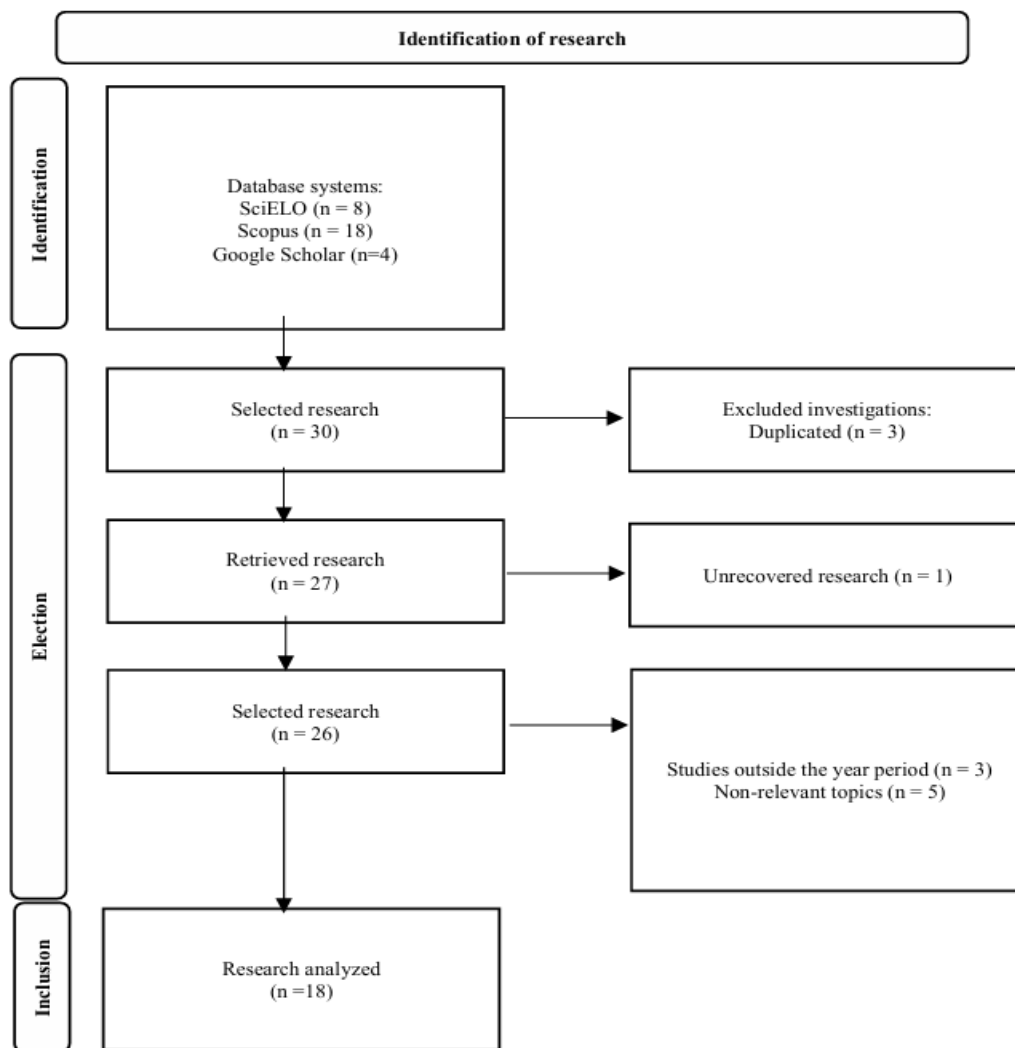


Figure 1. Selection flowchart

Table 1. Previous research

Cod	Author	Country	Title	Summary	Database
1	Akhtar, T., Chen, L. y Ali Tareq, M. (2024)	Malasia	Blockchain technology enterprises' ownership structure and cash holdings.	Blockchain technology facilitates transparent transactions and automation of financial processes.	Scopus
2	Badakhshan, E., Ball, P. y Badakhshan, A. (2022)	Iran	Using digital twins for inventory and cash management in supply chains.	The impact of disruptions in the financial and physical flow of the company's performance is examined.	Scopus
3	Bark, J. y Kyung, P. (2024)	Corea del Sur	Stewardship code adoption and firms' decisions on treasury shares: Evidence from South Korea.	The adoption of the administration code to make decisions related to treasury actions is addressed.	Scopus
4	Carreño, D., Salazar, H. y Mesa, J. (2021)	Colombia	Approach to the behavior of cash flow with Systems Dynamics.	Cash flow, an aspect of treasury management, plays a transcendental role in decision making, since it is known if there	SciELO

				are more losses or gains.	
5	Castañeda, K., Sánchez, O., y Porras, H. (2021)	Colombia	Cash flow planning of construction projects based on BIM and system dynamics.	The decisive activities that ensure the financial resources of an activity are based on planning within treasury management.	SciELO
6	Coskun, S. y Segundo, L. (2021)	Estados Unidos	Cash management: how do countries perform sound practices?	The main challenges faced by treasury management are summarized in a fragmented structure between payments and liquidity.	SciELO
7	Decamps, J. y Villeneuve, S. (2022)	Francia	Learning about profitability and dynamic cash management.	The challenge of profitability and cash holding is highlighted more depending on the life cycle of the company.	Scopus
8	Delfín, Y., y Rodríguez, E. (2022).	Perú	Gestión de tesorería y liquidez en las empresas de seguros en Perú.	Treasury management positively influences the company's liquidity in terms of managing income and expenses in a sustainable way.	SciELO
9	He, Z., Nagel, S., y Song, Z. (2022)	Estados Unidos	Treasury inconvenience yields during the COVID-19 crisis.	The article presents the main drawbacks of treasury management during crisis situations. Proper treasury management serves as a business hedge to boost business investment and prevent risks.	Scopus
10	Jakensgard, H. y Moursli, R. (2020)	Suecia	Derivative cash flows and corporate investment.	There is an interdependence of financial decisions that are influenced by the company's restrictions and how they are managed by treasury management.	Scopus
11	Kirch, G. y Terra, P. (2020)	Brasil	Financial constraints and the interdependence of corporate financial decisions.	Climate risks can influence the treasury management of companies, which is why sustainable practices are recommended.	SciELO
12	Lee, C., Wang, C. y Think, B. (2023)	China	Green development, climate risks, and cash flow: International evidence.	Treasury management predicts liquidity and allows predicting future cash flows for operations.	Scopus
13	Noury, B. et al. (2020)	Francia	The prediction of future cash flows based on operating cash flows, earnings and accruals in the French context.	The benefits of incorporating artificial intelligence into treasury management processes are	Scopus

				highlighted.	
14	Polak, P. et al. (2020)	Estados Unidos	“Intelligent” finance and treasury management: what we can expect.	Automated procedures based on BIM contribute to treasury management through better prediction of risk factors.	Scopus
15	Ranjbar, A. et al. (2021)	Australia	Developing a novel cash flow risk analysis framework for construction projects based on 5D BIM.	Operating cash flow can be a predictor of a company's solvency or failure, which is why treasury management must be accompanied by risk management.	Scopus
16	Rodríguez, N. y López, J. (2020)	Brasil	The Usefulness of Operating Cash Flow for Predicting Business Bankruptcy in Medium-Sized Firms.	Regarding treasury management, cash flow influences the perception of a company's profitability.	SciELO
17	Shaker, M. y Elnahass. M. (2024)	Emiratos Árabes	Being famous matters: Evidence from cash flow volatility.	The article explains the challenges and opportunities of treasury management with the advent of the digital age.	Scopus
18	Wang, Y, y Ding, D. (2024)	China	Deep Learning Algorithm Research and Performance Optimization of Financial Treasury Big Data Monitoring Platform.	Blockchain technology facilitates transparent transactions and automation of financial processes.	Ebsco

RESULTS

In this research, a record of 18 articles was made from a total of 30 publications found in databases Scopus (18), Scielo (8) and Google Scholar (4). The content of these articles covers complete information on treasury management in terms of definition, implications, relationship with other company activities and current trends. These data strengthen positioning of this management as a key for decision making regarding financial actions of the organization.

Regarding the results of the systematic review, the contribution of treasury management to having available cash flow in any situation or obligation of the company is highlighted. Some difficulties that it faces are also mentioned and, above all, the modalities that it has been taking to adapt to new situations, embracing technological tools, a sustainable approach and automated processes.

DISCUSSION

Treasury teams use their knowledge to make decisions and analyze situations such as environmental considerations like exchange rates or GDP, internal stories like trends or growth needs, and corporate-level impacts like structure or liquidity. To refine and manage this data more accurately and quickly, AI can be used in treasury management because it can provide more accurate risk predictions, diagnostics, quality control, financial data mining, and financial information quality control (Polak et al., 2020). Similarly, big data monitoring platforms are used that process images of financial documents, language, and create recommendation systems (Wang & Ding, 2024).

Among other trends, many companies choose to adopt a management code that improves performance through the active actions of shareholders to increase the value of organization (Bark & Kyung, 2024). On the other hand, risk management must be taken into account to complement the treasury department for the continuity of value creation (Jankensgard & Mourski, 2020), in this way cash flows can be specified based on payment patterns and attributes related to the contract. This is possible, for example, with automated procedures such as Building Information Modeling (BIM) that allows estimating costs, quantities and scheduling (Ranjbar et al., 2021).

There are companies that opt for simulation models to integrate variables within treasury management, as well as to make changes that have an effect on financial flow, that is, different income and expense scenarios are

presented that can affect liquidity (Carreño et al., 2021; Badakhshan et al., 2022). Depending on their projects, organizations can have an automated planning scheme that provides a work breakdown structure, estimated costs, simulation, flow analysis, and implementation alternatives strengthen decision-making (Castañeda et al., 2021).

Likewise, blockchain technology is part of treasury management trends due to its guarantee of transparent and secure financial processes; this collaborative adjustment is functional to face interruptions (Akhtar et al., 2024). Likewise, many studies emphasize conditions of the environmental environment to ensure sustainable management, since there is a positive influence on cash flow depending on sustainability of the company's initiatives (Lee et al., 2023).

CONCLUSIONS

Treasury management has been transformed by changes in the financial market and the adoption of new technologies, becoming not only the axis of cash and resource management, but also of strategic planning and meeting expectations. To this end, new trends emerge that contribute to the efficiency of this department while adapting to the dynamic economic environment.

The adoption of artificial intelligence and big data to process financial information more quickly and accurately, complementing the work of the treasury team to improve risk predictions, cost estimates and, therefore, decision-making.

It is necessary to use simulation models and monitoring platforms to visualize different scenarios that allow the adjustment of strategies in real time. Likewise, having risk management to manage exposures to adverse situations.

Many companies implement blockchain technology to ensure financial activities are safe and transparent. Likewise, the importance of sustainability in this field has been evidenced when environmental setting is taken into account, which contributes to optimization of cash flows.

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