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METHODOLOGY OF CHANGE MANAGEMENT IN THE IMPLEMENTATION OF AUTOMATED TREASURY SYSTEMS

МЕТОДОЛОГІЯ УПРАВЛІННЯ ЗМІНАМИ ПРИ ВПРОВАДЖЕННІ АВТОМАТИЗОВАНИХ СИСТЕМ КАЗНАЧЕЙСТВА

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The relevance of the chosen topic arises from the growing need to explore the automation of treasury systems in enterprises, given the rapidly changing external and internal environments of companies. This study investigates both the theoretical and practical aspects of automation, focusing on how new systems can adapt flexibly to these dynamic conditions. The research is rooted in a detailed examination of methodologies for change management during the implementation of automated treasury systems, ensuring that such transitions align with broader business strategies. The study's methodology includes a thorough analysis of existing theoretical frameworks in the field of cash flow system automation, particularly in treasury management. Additionally, it draws on practical experiences from companies such as Severstal, JSC USC, and SMART-HOLDING, which have implemented systems like 1C, Finance 360°, and the integrated "Treasury" project. These cases provide valuable insights into the challenges and effective solutions for developing efficient cash flow management systems. The findings demonstrate that automated treasury systems are crucial for companies to manage their cash flows effectively. They enable firms to maintain control over key economic indicators while providing the flexibility needed to respond to fluctuating external and internal factors. Through the use of sophisticated methodological tools, these systems support strategic financial management and help companies stay competitive in a fast-paced environment. The conclusions of this study are highly relevant for students and professionals engaged in the study or practice of cash flow management and treasury operations in various organizational settings. The insights offered emphasize the importance of a well-implemented treasury automation system in ensuring financial stability and achieving long-term business success. Furthermore, the study presents practical recommendations for effectively implementing and adapting these systems to meet the evolving demands of the global business landscape.

Keywords: cash flows, holdings, corporations, automatization, budgeting, treasury, strategic planning, management, sustainable development, management decisions, strategies, business activities.

Актуальність обраної теми зумовлена зростаючою необхідністю дослідження автоматизації казначейських систем на підприємствах в умовах швидкозмінюваного зовнішнього та внутрішнього середовища компаній. Це дослідження охоплює як теоретичні, так і практичні аспекти автоматизації, зосереджуючись на тому, як нові системи можуть гнучко адаптуватися до цих динамічних умов. Дослідження базується на детальному аналізі методологій управління змінами під час впровадження автоматизованих казначейських систем, забезпечуючи відповідність цих переходів ширшим бізнес-стратегіям. Методологія дослідження включає ретельний аналіз існуючих теоретичних підходів у сфері автоматизації систем управління грошовими потоками, зокрема у казначейському управлінні. Крім того, воно ґрунтується на практичному досвіді компаній, таких як «Северсталь», ПАТ «ОСК» та «СМАРТ-ХОЛДІНГ», які впровадили системи, такі як 1C, Finance 360° та інтегрований проєкт «Казначейство». Ці кейси надають цінні інсайти щодо викликів і ефективних рішень для розробки ефективних систем управління грошовими потоками. Результати дослідження демонструють, що автоматизовані казначейські системи є ключовими для ефективного управління грошовими потоками компаній. Вони

дозволяють бізнесу зберігати контроль над основними економічними показниками, забезпечуючи при цьому необхідну гнучкість для реагування на коливання зовнішніх і внутрішніх факторів. Завдяки використанню складних методологічних інструментів ці системи підтримують стратегічне фінансове управління і допомагають компаніям залишатися конкурентоспроможними в умовах швидкоплинного середовища. Висновки цього дослідження мають високу актуальність для студентів та професіоналів, які займаються вивченням або практикою управління грошовими потоками та казначейськими операціями у різних організаційних умовах. Надавані інсайти підкреслюють важливість добре впровадженої системи автоматизації казначейства для забезпечення фінансової стабільності та досягнення довгострокового успіху в бізнесі. Крім того, дослідження пропонує практичні рекомендації щодо ефективного впровадження та адаптації цих систем для задоволення змінних вимог глобального бізнес-середовища.

Ключові слова: грошові потоки, холдинги, корпорації, автоматизація, бюджетування, казначейство, стратегічне планування, управління, сталий розвиток, управлінські рішення, стратегії, бізнес-діяльність.

Introduction. The system of effective cash flow management in companies generally comprises three main elements: budgeting, treasury, and the financial responsibility center (FRC).

The budgeting system organizes multi-level budgets, constructs time regulations, and designates cost centers and financial responsibility centers (FRC). The treasury, on the other hand, manages actual cash flows: it approves and executes payments, monitors future balances in money storage locations, and determines the source of payment. Its main goal is to optimize cash flow movement, effectively distribute it over time periods (days/weeks), and manage and control overspending and the absence of cash gaps.

The integration of budgeting and treasury systems occurs through the functionality of limiting. When forming the plan, indicators from the budgeting system are automatically transferred to the treasury system. When forming the actuals, indicators from the treasury system are automatically transferred to the budgeting system [4].

The treasury system is an important tool for effective financial management of the organization and control over cash flow. It includes the cash flow budget (CFB) and a financial structure that allocates financial responsibility among employees.

There are several stages in forming a treasury system:

1. Analysis of current cash flow processes: This stage involves describing the processes that reflect the cash flow in the company.

2. Description of new treasury processes: Based on the analysis of existing business processes, organizational structure, and company goals, new optimal treasury processes need to be established.

3. Definition of FRC: Based on the formed treasury processes and the organizational

structure of the enterprise, a financial structure should be developed, assigning responsibility for each stage of the process among employees.

Additionally, for effective financial management of the organization, it is important to remember the significance of budgeting and regular monitoring of cash flows [1].

The methodology of automating the treasury system under changing structure conditions involves the following steps:

1. Study and determination of the necessary composition and interrelation of operational cash management processes (see Figure 1).

2. Identification of process participants and their functions in the process implementation.

3. Definition of the process management procedure and those responsible for its implementation.

4. Schematic description of the management process [6].

Automating the treasury system offers several advantages, including:

- Elimination of operational errors due to the automation of manual operations;

- Reduction in the time required to generate reports;

- Increased speed of managerial decision-making related to the distribution of financial flows;

- Security of operations – the entire process chain is implemented within the accounting system, eliminating the influence of external and internal factors;

- Quick implementation of adjustments in the treasury system when necessary.

Thus, treasury automation can enhance work efficiency, reduce the risk of errors, and accelerate managerial decision-making. However, special attention should be given to implementing various treasury tools, which may have limitations, to anticipate potential development scenarios.

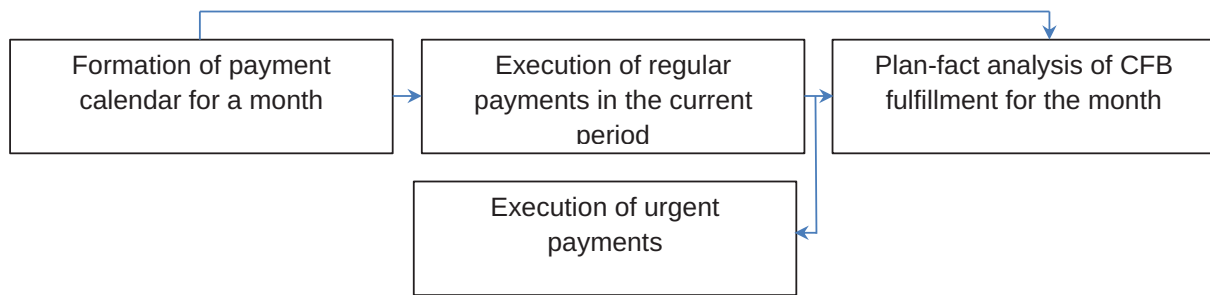


Figure 1. Composition and sequence of operational level processes [6]

1. It is important to understand that the cost of implementing and executing a treasury automation project can be quite high, as well as the cost of adjustments. Many factors influence how complex the upcoming adjustments will be, how much time they will take, and the extent to which human resources will be involved.

Additionally, it is possible to engage company resources in work that requires internal resources. For example, if the company needs to create a system that will automatically process bank statements, it is not always necessary to involve external developers for this task. If resources are available, the company can use them to write a macro. This can save on automation costs and enhance the quality of the company's internal expertise in robotics.

2. After automating transaction processes in the treasury, employees may begin to rely solely on the data provided by the system. To prevent such reliance from undermining expertise and data quality control, additional control procedures can be introduced to create snapshots of data automatically entered into the accounting system. This way, the responsible employee will not lose their analytical skills and can quickly identify any issues arising in calculations if needed.

3. It is essential to consider information security in case of system failure, the risk of archive loss, and the risk of external or internal fraud. To protect against such scenarios, you can periodically back up the database or provide an alternative method for signing and sending bank documents to the client bank. Additionally, to prevent external fraud, employees can be trained to recognize phishing emails [2].

An automated cash flow management system (CFMS) includes two widely recognized approaches to budgeting: incremental budgeting and zero-based budgeting. The optimal solution within a corporate structure is their

combined use, based on an analysis of previous periods and taking into account changes in the external and internal environment. For this purpose, an information base is necessary, which includes consolidated or combined reporting, depending on the type of corporate structure. It is also important to analyze activities and the potential for changing the existing situation, justifying significant changes in costs and sales compared to actual results. The construction of a budgeting system for a corporate structure should be based on principles of comprehensiveness, dynamism, and informational support. Current market conditions – globalization, speed, and efficiency – affect all aspects of activity and demand new, stricter requirements for planning and resource management. It can be asserted that it is currently very difficult to achieve a competitive advantage without a unified, well-coordinated, and hierarchical budgeting system [9].

Additionally, the automation of CFMS monitors and optimizes the management of cash balances within the corporate structure. The volume of flows in large companies and holdings changes daily. Therefore, optimizing the volume of cash at any given moment plays a crucial role in the automation of CFMS.

Methods and tools for managing cash volumes in a changing external and internal environment within a corporate structure can be divided into two major groups:

1. Methods and tools for increasing cash volumes:

- Borrowed capital;
- Issuing shares or increasing their value for external beneficiaries of the company;
- Increasing current liabilities to companies outside the group (counterparties);
- Reducing inventories or accounts receivable (by selling on a partial or full prepayment basis);

– Reducing non-current assets (accelerated depreciation or sale of assets to counterparties outside the group of companies).

2. Methods and tools for decreasing cash volumes:

- Repaying loans, advances, and credits;
- Increasing employee salaries and paying bonuses;
- Buying back shares of the company's own stock;
- Purchasing non-current assets (NCA) by group members;
- Purchasing materials, tools, raw materials, and inventories (i.e., into the company's current assets).

Materials and Methods. The article is based on theoretical knowledge in the field of cash flow management and specifically the automation of treasury systems [1; 5–8].

The practical aspects are demonstrated through the results of implementing automated treasury systems, drawing on the experiences of Severstal [2] and JSC "OSK" [4], as well as the outcomes of treasury and budgeting automation using the Finance 360° product integrated with the 1C: Trade Management accounting system [3].

Additionally, the article presents the author's developments and results in collaboration with the consulting firm Ernst & Young in the development and implementation of the automated financial process management system "Treasury" for one of Ukraine's largest investment holdings, SMART-HOLDING.

This holding operates in various sectors including metallurgy, agribusiness, shipbuilding, development, and energy.

Results and Discussion. Based on the theoretical and practical foundations, a comprehensive financial process automation system called "Treasury" was developed and implemented for the investment holding SMART-HOLDING. This system ensures the connection between medium-term and short-term planning levels (see Figure 2).

Employees of the Financial Responsibility Center (FRC) plan payments for the week using budget reservations and for the day using payment requests. The treasurer approves and places documents in liquidity management and the payment register, as well as transfers reserves between weeks and days to maintain the companies' liquidity. Afterward, the initiator and FRC managers are notified of changes in payment schedules.

This system allows the creation of actual records of all operations, ensuring up-to-date and highly detailed operational management reporting on all financial operations of SMART-HOLDING.

Examples of decisions based on operational reports are shown in Figure 3.

The changes introduced into the cash flow management system through the implementation of the comprehensive "Treasury" analysis and processing approach enable the Financial Department to effectively plan the Holding's payments, maintaining key economic indicators

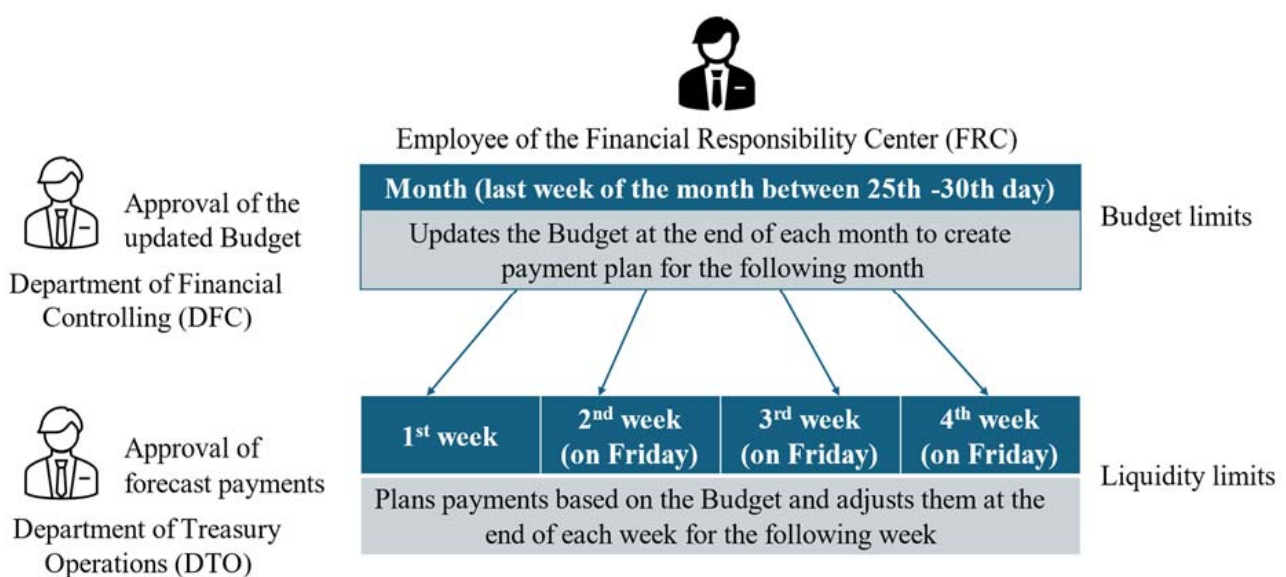


Figure 2. Interaction of the Financial Responsibility Centers (FRC) and the Finance Department when planning payments

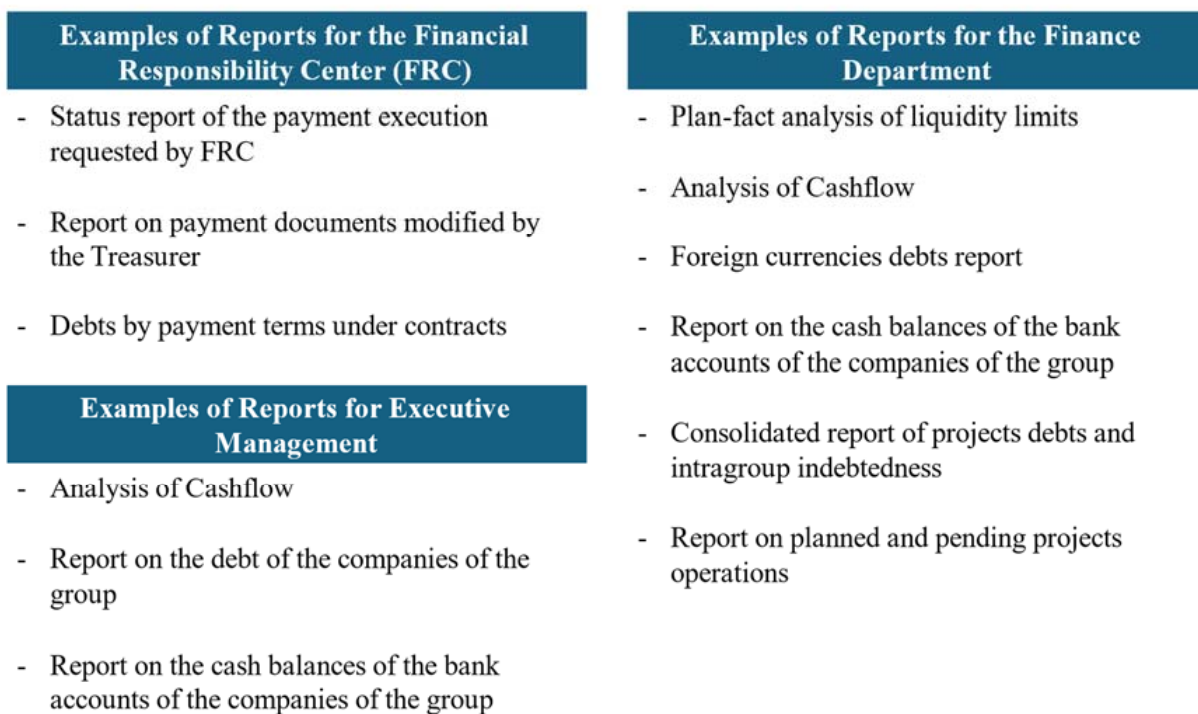


Figure 3. Management decisions based on operational reporting

Table 1

Centralized management of liquidity and debt of the Group's companies by the Financial Department

Advantages	Tools	Users
Managing company payments on a monthly, weekly, and daily basis to maintain the group's liquidity	Liquidity management, Daily payment planning (payment register)	FRC, Financial Director
Daily payment planning based on cash balances in company accounts	Daily payment planning (report on account balances)	FRC, Financial Director
Planning operations for transferring securities, debt, and funds between group companies	Project operations	Corporate Management, Department of Financial Services, FRC

ФІНАНСИ, БАНКІВСЬКА СПРАВА ТА СТРАХУВАННЯ

such as liquidity or debt. Additionally, it allows flexible control over securities transactions using project operations planning tools (see Table 1).

As a result of the implementation of the "Treasury" system, it is also possible to control budget limits. A budget limit is the maximum amount of funds that can be used for a specific item within a particular month. Realistic budget planning allows the FRC to make payments without undergoing procedures for reallocating budgets between items or over budget (see Figure 4).

Budget limits are checked at all stages of payment period update. In case of insufficient

free limits, redistribution or initiation of over budget can be performed.

Thus, budget control can be carried out in terms of the time periods, FRC, cost centers, cash flow items, and currency. The time periods allow for accurate planning for both the month and the specific day.

Primary documents, which are the basis for payments, are considered the foundation for planning.

Conclusion. The automation of the treasury system optimizes cash management and helps create a more efficient system for managing company cash flows.

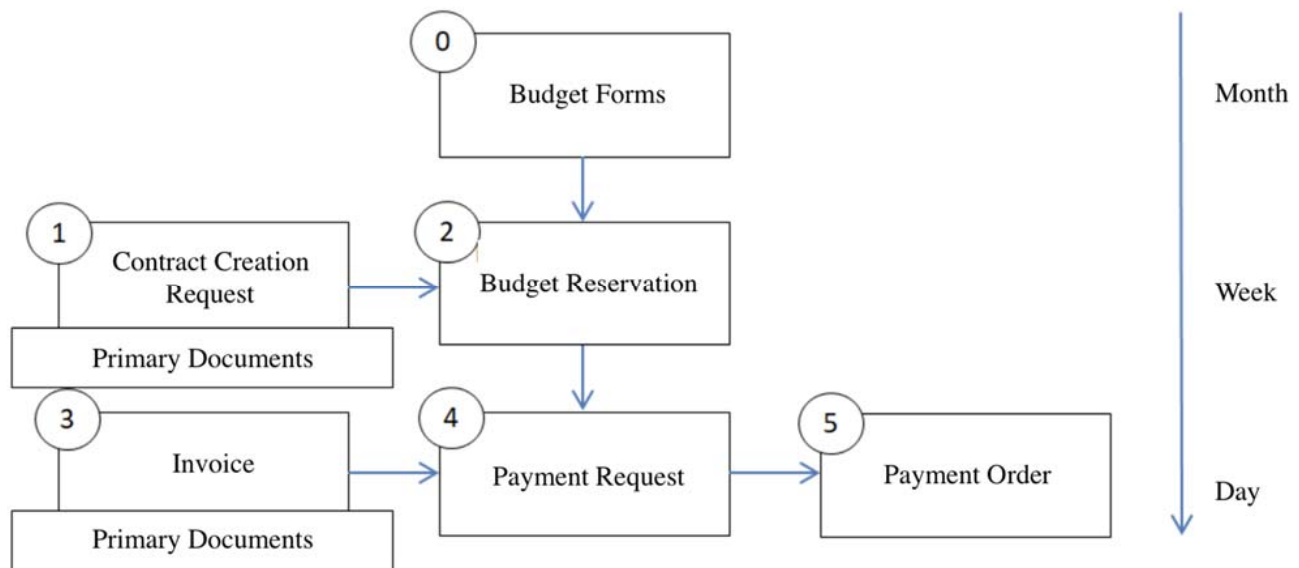


Figure 4. Payment planning documents and control of budget limits

From examples of integrating the Finance 360° system, as well as the automated cash flow management system "Treasury," it is evident that the company's accounting department can significantly reduce its labor costs. Reducing manual entry of cash expenditure requests can cut costs by up to 50%.

Additionally, automation can enhance financial discipline by minimizing unplanned payments and eliminating "double" payments on the same invoices. Automating the approval process and routing based on selection criteria accelerates the approval process and payment efficiency, significantly reducing the risk of penalties from suppliers.

A reduction in labor costs for cash flow distribution by up to 65% is achieved through the informativeness of the Payment Calendar, which allows customers to see complete information about the current status and payments. The interactivity of the calendar also helps eliminate cash gaps.

Labor costs for accountants in forming payment orders are completely eliminated thanks to full automation.

Furthermore, the automation of cash flow management (CFM) improves the efficiency of the cash flow management business process and standardizes budget forms and models. Minimizing the risk of errors and information loss during planning and collecting actual data is possible by transferring from

Excel to the selected automation system. The system also provides convenient collaborative work with data in a single system, reducing labor costs for collecting and processing planned data by 60%. The speed of approving planned data and setting spending limits increases by 85% thanks to the configuration of approval routes.

Finally, automating cash flow management processes allows for the generation of internal reports in real-time, ensuring accurate and rapid information for management about the actual state of the group of companies.

A specific example of implementing the automated "Treasury" system enabled the practical achievement of:

- The full cycle of financial planning within the budget year, controlling budget execution in operational, financial, and investment activities of SMART-HOLDING;
- Control of all transactions of the group of companies linked to budget limits;
- Integration of payments with client-bank systems;
- Automatic loading and reconciliation of statements across all banks and accounts of the group of companies.

The flexibility of the system allows it to easily adapt to changing business conditions, legislative requirements, and internal processes, ensuring long-term efficiency and sustainability of operations.

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