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Educational and Research Institute «Karazin Business School»

Department of Management and Administration


**MASTER'S THESIS**

Title: «Improving the management of financial activities of an enterprise»

Completed by 2<sup>nd</sup> year student,  
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**TASK**

**TO MASTER THESIS**

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2. Analyze financial innovations in the strategic dimension


3. Develop practical recommendations for the introduction of financial innovations in the company's activities

#### 4. Work plan

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2	Preparation of the thesis' first section
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6	Writing of the introduction, conclusions of the thesis. Making references list
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## INTRODUCTION

**Relevance of the study.** As organizations work to become «exponential enterprises», they begin to realize that the ability to change provides an organization's ability to compete and win. This flexibility becomes their competitive and strategic advantage. This requires simplified and standardized processes, a foundation of innovative and stimulating technologies, as well as a highly skilled and technically fluent workforce. Dynamic financial potential develops in order to win, it is always ready and considers every violation as a favorable opportunity.

Dynamic financial potential is necessary to help financial directors and managers of financial organizations better understand the forces of the coming changes and adapt their organizations to these changes and prosperity in their conditions. But along the way, these forces got stronger and began to come from new directions. In order to respond to these new challenges and help CFO's better prepare for what may happen around the corner, we are changing our point of view a bit. Now is always the critical moment. Financiers always need to be ready for change — and there is always time for new opportunities.

**Goal of the research** is to study of modern approaches to the management of financial activities of the enterprise, as well as the improvement of these approaches in a practical context based on an objective analysis of the advantages and disadvantages of existing financial innovations.

**Research objectives:**

- to define the main directions of financial management of the enterprise;
- to describe the financial management system of the enterprise;
- to analyze challenges and benefits of green finance;
- to characterize the main types of financial innovations in the digital dimension;
- to identify dynamic financing methods, their advantages and disadvantages;

- to systematize approaches to improving the quality of financial transactions;
- to develop practical recommendations for the introduction of financial innovations taking into account the requirements of liquidity and solvency of the enterprise.

**The object of the research** is financial management system of the enterprise.

**The subject of the research** is ways to introduce financial innovations as part of the implementation of strategic changes in the enterprise.

**Research methods.** To conduct the research, methods of comparison, generalization and systematization were used on the basis of a literary review on selected topics. The advantages and disadvantages of various financial innovations were determined using qualitative analysis.

**Practical significance.** The study of the positive and negative aspects of various financial innovations in the aspect of the projected trends of 2025 makes it possible to develop practical recommendations for professional activity that can be used by financial managers in the application for various spheres of economic activity.

## SECTION 1

### THEORETICAL APPROACHES TO FINANCIAL MANAGEMENT

#### 1.1. Definition and role of financial management

Financial management of an enterprise involves planning, organizing, directing and controlling the financial activities of an enterprise. This means applying the general principles of managing the financial resources of the enterprise. Financial management is a specialized process of managing funds to achieve business goals. The financial management activities carried out by the top management are aimed at applying management principles to the financial structure of the business.

The scope of financial management includes:

1) Investment decisions - investments in fixed assets and current assets. Investment decisions are aimed at making the most reasonable investments in various assets in order to provide investors with the maximum possible return. Managers should take into account the profit margin, cash flow of the project and investment criteria when making any decision. Decisions can be short-term or long-term and require financial professionals to evaluate investment opportunities to determine the best options:

– Long-term investment decisions (also known as capital investment budgeting decisions): they are related to the management of fixed assets. Since they are often large amounts of investments related to periods from one year to more than 10 years, they are difficult and expensive to cancel, and therefore they require careful evaluation. These investments directly affect the profitability, valuation and profitability of the company, as they affect the size of assets, competitiveness and scale of operations. Examples of long-term investment decisions are: the introduction of a new product line; the opening of a new factory, warehouse, office or store; the takeover of an existing company; investing in machinery and production equipment [26].

– Short-term investment decisions (also known as working capital replenishment decisions): they are related to the day-to-day activities and operations of the business. Effective decisions need to be made in this area, as they help to ensure healthy working capital and affect short-term profits and liquidity. Short-term investment decisions involve aspects such as inventory management, cash management and accounts receivable [32].

Regardless of whether the investment processes are short-term or long-term, they should include the formulation of investment goals, the definition of risk profiles and monitoring of the effectiveness of investments.

2) Financial decisions that involve attracting financing from various resources. Financial decisions include decisions about the type of source, the period of financing, the cost of financing and the return received in this way. Financial decisions involve determining the best ways to attract financing from both short-term and long-term financial sources. Along with calculating the financial risks associated with any options and the cost of capital, these decisions take into account how much financing will be raised from borrowed funds and shareholders' funds. Managers should weigh factors such as: cost – as a rule, the cheapest sources of financing are chosen; risk; placement costs; cash flow situation; fixed operating costs; control considerations; and the state of capital markets [39].

3) The decision to pay dividends - the financial manager must make a decision regarding the distribution of net profit. Decisions on the payment of dividends relate to a balanced distribution of profit shares – dividends – among shareholders, taking into account the amount of profit retained in the business to support future growth. The decision on how to distribute this money is influenced by a number of factors, such as: profit and earnings stability; dividend stability; growth opportunities; cash flow situation; shareholder preferences; tax policy; stock market reaction; access to financial markets; as well as legal and contractual restrictions [43].

Financial management, as a rule, is associated with the purchase, distribution and control of financial resources of the enterprise. The objectives may be:

- regular and adequate receipt of funds to the enterprise;

- ensuring adequate returns to shareholders;
- ensuring optimal use of funds (as soon as funds are received, they should be used as much as possible at the lowest cost);
- ensuring the safety of investments, i.e. funds should be invested in safe enterprises so that an adequate rate of return can be achieved;
- ensuring a rational capital structure - there must be a reasonable and fair capital structure, a balance between debt and equity capital must be maintained [47].

Although ensuring the success and profitability of the business is the main goal of financial management, the key tasks are also:

- compliance with regulatory requirements;
- maximization of profit, income of stakeholders and the total value of the company;
- monitoring of liquidity and cash flows;
- ensuring economic stability;
- providing up-to-date financial statements and providing financial information and data to determine key performance indicators;
- development of financial scenarios to support forecasting;
- support for risk management efforts [52].

In accordance with the goals and objectives , the following functions of financial management are distinguished:

1) Capital needs assessment: The financial manager must make an assessment regarding the company's capital needs. This will depend on expected costs and profits, as well as future programs and policies of interest. Estimates should be made in an adequate way, which increases the profitability of the enterprise.

2) Determining the composition of capital: After the assessment has been made, it is necessary to make a decision on the capital structure. This includes short-term and long-term equity analysis. This will depend on the share of equity owned by the company and the additional funds that must be raised from external parties.

3) Selection of funding sources: To attract additional funds, the company has many options:

- issue of shares and debt obligations;
- loans to be taken from banks and financial institutions;
- government deposits that will be attracted, as well as in the form of bonds.

4) Investment of funds: The financial manager must decide to allocate funds to profitable enterprises in order to ensure the safety of investments and the possibility of regular returns.

5) Disposal of surpluses: The decision on net profit should be made by the financial manager. This can be done in two ways:

- declaration of dividends - it includes the determination of the amount of dividends and other benefits;
- retained earnings - it is necessary to determine the amount that will depend on the company's expansion, innovation, and diversification plans.

6) Cash Management: The financial manager must make decisions regarding cash management [55].

7) Financial control: The financial manager must not only plan, purchase and use funds, but also exercise control over finances. This can be done using many methods, such as coefficient analysis, financial forecasting, cost and profit control [57].

While many organizations have their own financial teams and managers, many also resort to the help of financial institutions and other professionals who help them in financial management.

## **1.2. The main directions of operational financial management of the enterprise**

Financial management of a company is a multifaceted and complex process. The objects of financial management of enterprises are the following:

- 1) Financial resources and their sources, which are such elements as equity, liabilities, income of future periods.
- 2) Financial relations characterizing financial relations between subjects of economic relations.

It should be noted that these concepts are only separate elements of the object of financial management of enterprises and cannot characterize it as a whole.

When managing finances, it is important to take into account that the effectiveness and results of financial management of an enterprise are influenced by many factors, such as the management environment, management functions, as well as socio-psychological factors affecting the management process.

An important stage in financial management, as in any other activity, is the setting of a management goal. The purpose of financial management is largely determined by the time management period, so it is necessary to formulate goals for both long-term and short-term periods.

In the long term, the organization's development strategy and strategic goals should be formulated accordingly. In the long term, an important aspect of the company's activity is to achieve its financial independence, which is ensured by making optimal investment and financial decisions, competent marketing policy and increasing competitiveness.

In the short term, the main aspect is the achievement of tactical goals that determine the tactics of the organization's activities in the field of cost and profit management, which is achieved by finding the optimal ratios of production and sales, fixed and variable costs, cost and profitability, risk and income.

Strategic and tactical goals are interrelated and are aimed at achieving the main goal of the financial management of the enterprise: ensuring the growth of the well-being of business owners, which is reflected in maximizing the market value of the enterprise.

Currently, many scientists talk about the need to manage the financial activities of an enterprise from the point of view of a systematic approach, that is, as a system in

which all elements are interconnected and structured in relation to the overall system [56].

The process of financial management at the enterprise in accordance with the principles of a systematic approach allows them to:

- identify the composition, the value of financial performance indicators for management objects, the dynamics of their changes, their mutual influence, as well as the impact on the efficiency of the enterprise as a whole;
- visually present a complete picture of the financial management system, its content, the relationship between its elements and interaction with the external environment;
- to conduct a comparative analysis of financial performance indicators with the data of the analysis of financial indicators of the studied enterprise for previous periods and planned indicators for the development of timely management decisions;
- to increase the company's resilience to changes in the external environment based on the analysis and monitoring of competitors' activities and comparison of the main indicators of financial activity with the data obtained and industry averages [58].

The problem of managing the financial activities of an enterprise is always associated with a combination of conditions and factors that create a situation affecting the functioning of the enterprise. Currently, scientists distinguish such types of working capital management:

- With a conservative type of working capital management, the organization restrains the growth of its current assets. As a rule, a conservative type of capital management is used either when it is necessary to save certain resources to maintain and strengthen the financial position of the organization, or in conditions of certainty in the capital, production and goods markets.
- With an aggressive type of working capital management, the organization constantly increases the growth of current assets, accumulates stocks of raw materials, consumables and finished products. In this case, working capital mostly consists of short-term loans and credits, which, in turn, increases the costs of the organization due

to the cost of their services. As a rule, an aggressive type of money management is used either with a monopoly position of the organization in the markets, or with a high level of profitability due to the exclusivity of goods or services, or with a low level of inflation [61].

If an enterprise does not put any restrictions on increasing working capital, and the turnover period is long, then this is a sign of an aggressive management policy. The application of an aggressive management policy ensures a low risk of technical insolvency, but cannot ensure an increase in profitability. If an enterprise minimizes current assets and staff turnover is low, this is a sign of a conservative management policy. A conservative working capital management policy ensures high profitability, but does not carry an excessive risk of technical insolvency.

Conservative policy ensures not only full satisfaction of the need for all types of working capital, but also the creation of significant reserves in case of rising costs or interruptions in the supply of raw materials, failures in the production process, slowing down the collection of receivables, increasing demand for finished products. This approach guarantees the minimization of business and financial risks, but negatively affects the turnover and profitability of current assets [68].

However, to date, choosing one type of working capital management is not always the right decision, since in modern economic realities organizations may have characteristics that satisfy the choice of two different types at once. The use of two types of working capital management allows financial managers of organizations to make more informed management decisions.

In addition to the types of working capital management, there are such classical approaches as:

- analysis of the working capital of the enterprise, which allows you to assess the effectiveness of the use of certain resources in the activities of the organization;
- determination of the liquidity of the balance sheet of the organization and where the working capital of the organization is invested during the financial cycle;
- ensuring the necessary level of profitability of the working capital of the

organization for the timely use of temporarily available funds;

– the choice of forms and sources of working capital formation, which allows determining the policy of its financing and optimizing the structure of the relevant sources [77].

Currently, working capital management includes:

- managing cash assets;
- management of accounts receivable;
- inventory management.

Based on this, it is possible to classify modern approaches to managing the working capital of an organization (see Table 1.1).

Table 1.1 - Approaches to working capital management of a modern organization

Approach	Advantages	Restrictions
<b>APPROACHES TO MANAGING CASH ASSETS</b>		
The Baumol model	Mathematical apparatus for calculating the optimal amounts of cash assets balances.	Shortage of current assets does not allow organizations to form the cash balance. Significant fluctuations in the amount of cash receipts. The list of negotiable short-term stock instruments and their low liquidity make it difficult to use indicators related to short-term financial investments in the calculations
The Monte Carlo Method	Allows to build a mathematical model for a project with undefined parameter values.	Relative complexity of calculations.
Budgeting	Allows to coordinate the work of the organization. Analysis of budgets allows for timely corrective changes. Experience in compiling the budgets of past periods. Improving the process of resource allocation. Comparison of achieved and desired results.	Complexity and high cost. Do not have any influence on the results of work, if budgets are not brought to the attention of employees. Employees require high labor productivity.

<b>Approach</b>	<b>Advantages</b>	<b>Restrictions</b>
Overdraft	A simple type of non-purpose short time bank loan.	High timing. Maintaining a certain turnover on the current account. High interest level.
<b>APPROACHES TO MANAGEMENT OF ACCOUNTS RECEIVABLE</b>		
Credit policy	Increase in sales volume due to providing customers with more favorable conditions. Accelerated turnover of accounts receivable. Minimization of lost profit, financial risks and the price of borrowed capital. Alternative sources of borrowing. Timeliness of debt repayment.	A tough type of credit policy negatively affects the growth in the volume of the organization's operational activities and the formation of its sustainable commercial ties, in turn, a mild type of credit policy causes a diversion of financial resources, reduces the level of the organization's solvency, and as a result, the return on working capital.
Management of receivables from the position of the life cycle	Helps to avoid a solvency crisis.	It is necessary to understand the life cycle of the organization at the moment.
Cluster analysis	Allows separate clusters of debtors to allocate and operate.	When processing a large amount of raw data, distortions may appear, as well as loss of individual characteristics of a particular customer.
Factoring	Replenishment of current assets. Acceleration of turnover of current assets. Expansion of the assortment. Provision of preferential terms of payment to buyers. Growth in profit.	High cost. Losses due to the receipt of an incomplete amount of debt. Loss of control over debtors.
Forfeiting	The ability to quickly receive cash by accounting bills. All the risks are assumed by a forfeiter. The ability to split the debt and each part of it with a separate bill. Flexible payment schedule.	High cost.
ABC analysis	Allows to select groups of debtors that have different significance for the organization.	Automation in implementing all relations with debtors is necessary.
<b>APPROACHES TO INVENTORY MANAGEMENT</b>		
Model EOQ	The model is universal and adapted to the various conditions of the flow of logistical processes.	Practical application of the model is limited.

Approach	Advantages	Restrictions
Just-in-Time	This approach is useful when the warehouse space is limited, and the costs of maintaining stocks are large.	In the conditions of business instability, this approach should be used with caution.
Reorder Level System	Minimization of storage costs.	This system is used by specialized trade organizations with a relatively small assortment of goods.

*Source: built by the author based on [2], [4], [7], [15], [20], [21], [25], [33], [40], [45], [60], [65], [72]*

In market conditions, an approach is needed on the application of two types of working capital management. This allows the financial managers of modern enterprises to implement more informed management decisions. It was revealed that an enterprise cannot achieve the maximum effect by managing only receivables, inventories or cash. It is necessary to analyze each of the components of the company's current assets.

### **1.3. Financial management system of the enterprise**

Management decisions in the financial management system are based on a number of interrelated fundamental concepts developed within the framework of finance theory:

1) The concept of the time value of money is that the value of money changes over time depending on the rate of return on the financial market, which is usually the interest rate on loans. Thus, the same amount of money in different periods of time has different values, and the value of money is always higher now than in any future period. This discrepancy is determined by three main factors: inflation, the risk of loss of income in the case of investment and the characteristics of money considered as one of the types of current assets.

2) The concept of accounting for the inflation factor is the need for a real reflection of the value of assets and cash flows and ensuring compensation for the loss of income

caused by inflationary processes in the implementation of long-term financial transactions.

3) The concept of risk factor analysis is to assess its level to ensure the necessary level of profitability of financial and economic operations and to develop measures to minimize the negative financial impact. Profitability is understood as the ratio of income received from a particular asset to the percentage of investments in this asset [74].

Financial management is aimed at controlling the movement of financial resources and financial relations that arise between entities in the process of movement of financial resources. The question of how to skillfully manage these movements and relationships is the content of financial management. Financial management is the process of developing financial management goals and implementing financial impact using methods and levers of the financial mechanism to achieve this goal.

Thus, financial management includes management strategy and tactics. The strategy in this case refers to the general direction and method of using tools to achieve the goal. This method corresponds to a certain set of rules and restrictions for decision-making. The strategy allows you to focus on a solution that does not contradict the adopted strategy, rejecting all other options. After achieving the goal, the strategy as a direction and means of achieving it ceases to exist.

In management theory, including the theory of financial management, the question of what indicator can be defined as the main goal and criterion for the success of a company has long been discussed. In principle, depending on various circumstances, it may be expedient and preferable to focus on one or another criterion, qualitative or quantitative indicator. In the most general case, we are talking about two main approaches focused: (1) on increasing capitalization, (2) on sustainable profit generation [69].

In accordance with the first approach, the content and main purpose of the installation of the company's financial management system is to maximize the welfare of its owners through a rational financial policy. Quantitative confirmation of compliance with the targets is manifested in the growth of the market price of the

company's shares. In other words, the main criterion is the upward trend in the company's stock prices.

Setting priority goals, which involves maximizing the market value of the company and, consequently, the wealth of its owners, is much more common. It is mentioned in almost all classical manuals on financial management.

The increase in the market value of the company is achieved by:

- generating stable current income in an amount sufficient to pay dividends and reinvest to maintain certain production volumes or their capacity;
- minimization of production and financial risks by choosing an economically sound main type of activity, full diversification of activities and optimization of the structure of sources of financing;
- attracting experienced management personnel [66].

To date, there has not been a unified understanding of the subject content of the functions of a financial management specialist. However, two main approaches can be formulated.

The first approach represents a financial manager as a specialist in the interaction of large companies with capital markets. The logic of the approach is as follows. The main source of financing for the company is the capital market. The company's entry into this market means the issuance of its securities and their placement on the market. The financial manager, in a sense, just specialized in this kind of business.

In the second approach, a financial manager is a specialist responsible for important decisions in the field of investment and financing. Since the concepts of investment and financing are not limited only to operations on the stock markets (for example, choosing the structure of current assets, justifying the system of lending to customers, assessing the feasibility of a specific source of financing of current activities), the scope of the financial manager in this sense is much broader. He needs to have an idea not only about the peculiarities of the functioning of financial markets, but also about financial flows within the company and methods of their optimization.

The information included in the financial management system at the enterprise must meet the following basic requirements (see Figure 1.1):

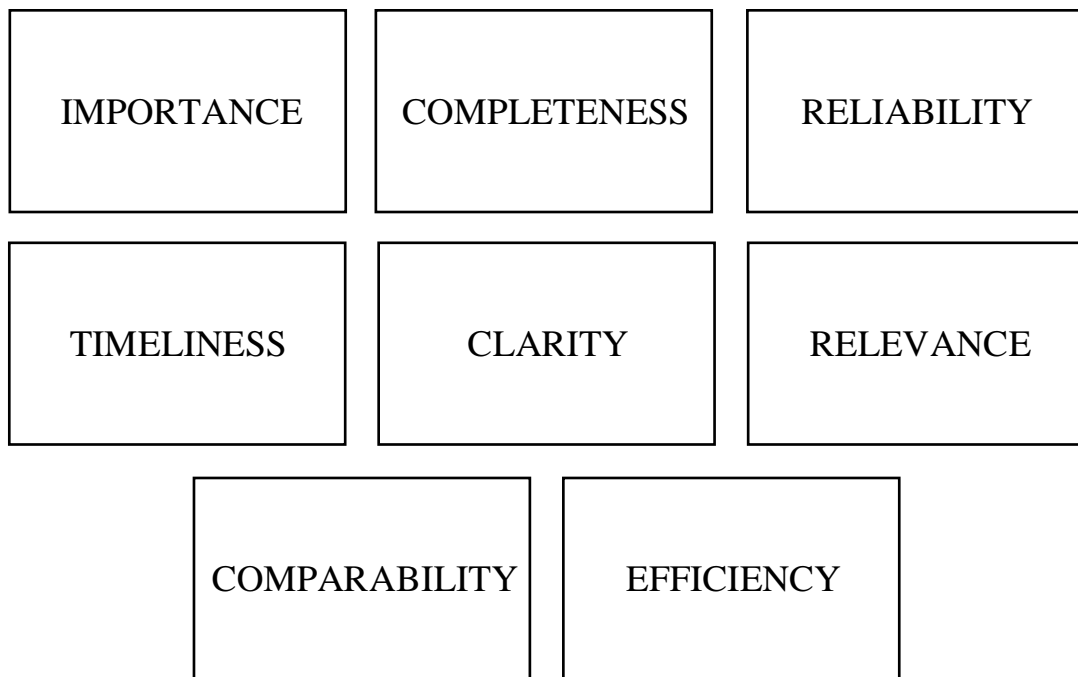


Figure 1.1 – Financial information basic requirements

*Source: built by the author*

- The importance that determines how much the information involved affects the results of financial decisions, first of all, in the process of forming the financial strategy of the enterprise, developing a targeted policy on certain aspects of financial activity, preparing current and operational financial plans.
- Completeness, which characterizes the completeness of the range of informative indicators necessary for the analysis, planning and making operational management decisions on all aspects of financial transactions.
- Reliability, which determines how well the generated information adequately reflects the real state and results of financial activity, truthfully characterizes the external financial environment, is neutral in relation to all categories of potential users and is verified.
- Timeliness, which characterizes the compliance of the generated information with the needs during the period of its use.
- Clarity, which is determined by the simplicity of its construction, compliance with specific standards of presentation and accessibility of understanding (adequacy of its interpretation) by those categories of users for whom it is intended.

– Relevance (or selectivity), which determines the relatively high degree of use of information generated in the process of managing the finances of the enterprise. The overflow of the financial management information system complicates the process of selecting the necessary informative data for the preparation of specific management decisions, leads to the formation of alternative insignificant projects of these solutions, increases the cost of the process of information support for the financial management of the enterprise.

– Comparability, which determines the possibility of a comparative assessment of the value of individual assets and the results of financial activity of the enterprise over time, the possibility of conducting a comparative financial analysis of the enterprise with similar economic entities.

– Efficiency, which in relation to the formation of an information system of financial management means that the costs of attracting certain informative indicators should not exceed the effect obtained as a result of their use in the preparation and implementation of appropriate management decisions [48].

The system of indicators of financial management information support, formed from external sources, is divided into the following groups:

1) Indicators characterizing the economic development of the country. The system of informative indicators of this group serves as the basis for analyzing and forecasting the conditions of the external financial environment of the enterprise's functioning when making strategic decisions in the field of financial activity (strategy for the development of its assets and capital, investment activity, the formation of a system of promising financial management targets). The formation of the system of indicators of this group is carried out on the basis of published state statistics.

2) Indicators characterizing the state of the financial market - the system of informative indicators of this group serves for making managerial decisions in the field of forming a portfolio of long-term financial investments, implementing short-term financial investments, attracting loans, currency transactions and other aspects of financial management. The formation of the system of indicators of this group is based

on the publications of periodical commercial publications, stock and currency exchanges, as well as on relevant electronic sources of information.

3) Indicators characterizing the activities of counterparties and competitors - the system of informative indicators of this group is mainly used for making operational management decisions on certain aspects of the formation and use of financial resources. These indicators are usually formed in the context of the following blocks: «Banks»; «Leasing companies»; «Insurance company»; «Investment companies and funds»; «Suppliers»; «Customers»; «Competitors». The source of the formation of indicators of this group is the publication of reporting materials in the press.

4) Regulatory indicators - The system of these indicators is taken into account when preparing financial decisions related to the specifics of state regulation of financial activities of enterprises. These indicators are usually formed in the context of two blocks: «Normative indicators through various aspects of the financial activity of the enterprise» and «Normative indicators of the effectiveness of the functioning of individual segments of the financial market». The source of the formation of indicators of this group are normative legal acts adopted by various public administration bodies [42].

The system of indicators of financial management information support, formed from internal sources, is divided into the following groups:

1) Financial statements of the company. The system of informative indicators of this group is widely used by both external and internal users. It is used in the process of financial analysis, planning, development of financial strategy and policy on the main aspects of financial activity, gives the most aggregated view of the results of financial activity of the enterprise. The advantage of this group of indicators is their generality; a clear pattern of formation (within the established standard deadlines); a high degree of reliability. At the same time, the information base formed on the basis of financial accounting has certain disadvantages, the main of which are: indicators only for the enterprise as a whole; low frequency of development (usually quarterly, and some forms of reporting only once a year); the use of only cost indicators.

2) Indicators of management accounting of the enterprise. This group of indicators is used for the current and operational management of almost all aspects of financial transactions, to the greatest extent in the process of financial support of operational activities [36].

In comparison with financial management accounting has the following main advantages:

- it reflects not only cost, but also natural values;
- the frequency of presentation of management accounting results fully meets the requirements for information for decision-making;
- can be structured in any context - by responsibility centers, types of financial activities;
- may reflect individual assets adjusted for inflation, the value of money over time.

Management accounting is built individually for each company and should be primarily subordinated to the information task of ensuring operational financial management.

3) Regulatory and planning indicators related to financial development. These indicators are used in the current and operational control over the implementation of financial activities [34]. They are formed directly at the enterprise:

- A system of internal regulations concerning the financial development of the company. The system includes standards for certain types of assets, ratios of certain types of assets and capital structure, norms of specific consumption of financial resources and costs.
- The system of planned indicators of the company's financial development. Part of the indicators of this division includes the entire set of indicators of current financial and operational plans of all types.

## **Conclusions to Section 1**

The scope of financial management includes investment decisions, financial decisions that involve attracting financing from various resources, the decision to pay dividends (the financial manager must decide on the distribution of net profit). In accordance with the goals and objectives, financial management functions such as assessing capital needs, determining the composition of capital, choosing sources of financing, investing funds, disposing of surpluses, and managing cash are allocated.

The objects of financial management of enterprises include financial resources and their sources, which are such elements as equity, liabilities, income of future periods, as well as financial relations that characterize financial relationships between subjects of economic relations.

Management decisions in the financial management system are based on a number of interrelated fundamental concepts developed within the framework of finance theory - the concept of the time value of money, the concept of accounting for the inflation factor, the concept of risk factor analysis.

Financial management is aimed at controlling the movement of financial resources and financial relations that arise between entities in the process of movement of financial resources.

The information included in the financial management system at the enterprise must meet such requirements as importance, completeness, reliability, timeliness, clarity, relevance, comparability. The system of indicators of financial management information support, formed from external sources, includes indicators characterizing the economic development of the country; indicators characterizing the state of the financial market; indicators characterizing the activities of counterparties, regulatory indicators. The system of indicators of financial management information support, formed from internal sources, determines the company's financial statements, indicators of management accounting of the enterprise, indicators of regulation and planning related to financial development.

## SECTION 2

### QUALITATIVE ANALYSIS OF FINANCIAL INNOVATIONS

#### 2.1. Challenges and opportunities for green finance

The term «green finance» is increasingly used internationally, sometimes in a broad sense, and sometimes using very technical terms. From the formulation of standards (usually imposed by the market) to regulatory measures for the development of financing principles (public or private) we are faced with different ways of definition and classification, but also with common elements, depending on the context (economic policy and taxes, regulations, market standards, statistical goals) and the parties involved (national or international financial systems, financial institutions, investors, companies) [11].

Although there is no single definition of «green» financing, definitions and sets of criteria are used at the global, national or institutional levels. These definitions can be used to evaluate and classify financing and financial instruments of this category for regulatory purposes, economic policy determination and statistical purposes. They may relate to eco-friendly products or services offered by financial institutions, climate and environmental risk management, investments in specific sectors or industries, as well as regulatory instruments [30].

First, it is necessary to clarify the differences between terms with similar scope or meaning. Such examples are sustainable financing or financing strictly related to climate goals. Sustainable finance, in general, refers to a broader context that includes both economic, social and environmental elements.

Proponents of sustainable finance believe that the environment and society are inseparable elements that influence each other. Climate finance is linked to environmental issues and is used to reduce emissions of pollutants and support

adaptation to the effects of climate change. Green financing, in principle, is between two other terms (sustainable financing and financing of environmental goals).

Some definitions of «green finance» are related to related activities, while others are technical in nature and relate more to financial terms. While these definitions differ in how they emphasize an element, they include references to the role that finance plays in allocating capital for broader environmental protection and climate change mitigation purposes. It draws attention to risk management or mentions products and services supported by green finance [46].

Thus, we can consider «green financing» of those products, services, processes or financial initiatives that are created to ensure environmental protection and ensure the transition to a low-carbon economy, to support the management of environmental risks and climate change.

The intensification of global actions to mitigate the effects of climate change has also led to an increase in interest in «green finance», both in the economic literature and in practice. The concept is not very clearly defined, but its development and attention to the subject are growing very quickly. The number of scientific papers published in this field has increased significantly since 2015, when the Paris Agreement was signed [59].

Investors are increasingly using a company's ESG rating to determine where they are spending their money. This concerns environmental, social and governance issues. What is considered necessary in these categories is constantly changing as cultures shift their focus. The CFO must pay attention to this changing landscape to ensure that the company is still well positioned to receive investments.

Although it is important to be aware of the latest developments and well informed about trends in the ESG field, it is fundamentally important to remain true to the company's own ethics and culture. Just as the CEO embodies the company's brand and culture, the CFO should be the same. Financial decisions should, first of all, be consistent with the company's own clear and consistent messages. It is not worth compromising with the fundamental values of the company because of the temporary trend of ESG, which can damage your profits in the long run.

Previously, the CFO considered only financial results. Now they must embody the company's values and make financial decisions based not only on short-term profits, but also on the long-term positive impact they want to have on society.

Sustainable financing is undoubtedly the next important achievement in business. The attention paid by professional investors to this topic is obvious: 82% of them around the world intend to increase their investments in ESG, which is a direct result of the will of customers, as stated by 37% of investors. In 2020, the adoption of ESG criteria worldwide was mainly characteristic of banks, 62% of which adhered to a broad policy of responsible investment. However, awareness of the concept of responsible investment itself is still limited, as evidenced by the fact that, for example, 68% of French adults say they have not heard of such tools [38].

Sustainable investments develop under the influence of both regulatory incentives and changes in management thinking. Their focus varies from country to country. One of the most notable regulatory incentives in the development of sustainable financing (understood as investments focused on the positive maintenance of climate, environment, social and employee issues, as well as respect for human rights) is the ambitious package of measures for sustainable financing of the European Union. In this sense, it is expected that by 2022 a unique European set of sustainability reporting standards will be adopted, while the Directive on Non-Financial Reporting already requires large organizations of public interest (listed companies, banks and insurance companies) with more than 500 employees to disclose certain non-financial information related to c meets the ESG criteria [67].

Despite government incentives, the main factor influencing investors' decisions about companies when considering ESG criteria is still the financial performance of companies, as stated in 2017 by 44% of Italian investors, which is consistent with the conclusion of Dortfleiner et al. in the case of small investors. Sustainable strategic management is accepted by goal-oriented companies and is stated as such, even if 40% of organizations that have implemented sustainable development in their business model expect to receive modest or significant benefits in the next five years from specific programs [38].

One of the most noticeable consequences of the high efficiency of ESG are financial factors that are directly related to the desires of shareholders regarding value. Companies applying ESG programs need capital for development, and this financial capital is focused on companies with a strategic vision, a better public image and reduced risks – all possible positive effects of effective ESG programs. Leading ESG companies also have a better chance of raising capital and are more efficient in the distribution process, which implies a lower cost of equity and debt and thus has a positive effect on long-term value for the shareholder. Responsible investing, as a rule, should reduce the risk of stock returns. ESG factor disclosures provide relevant information to (potential) investors and thus have the potential to reduce the cost of capital, and therefore they advocate for broader disclosure regulated by national and/or transnational decision makers – a solution to provide potential investors with up-to-date and reliable information.

The discussion about the relationship between ESG and CFP (corporate financial indicators) has a nearly 50-year history, the vast majority of them report positive results, while opportunities to improve the effectiveness of ESG exist in many areas. Recent studies have shown that there is no statistical difference in the risk-adjusted returns of a portfolio consisting of either high ESG-rated or low ESG-rated firms (Table 2.1).

Table 2.1 - The evaluation of ESG by C-level executives - respondents in the 2019 McKinsey Global Survey on valuing ESG programs

<b>Aspect</b>	<b>% of C-level executives from B2B companies</b>	<b>% of C-level executives from B2C companies</b>	<b>All C-level respondents</b>
Complying with regulations and meeting accepted industry expectations for performance, transparency, and/or accountability	48%	47%	46%
Making long-term strategic investments to address ESG issues that have bearing on the organization	14%	23%	17%

Aspect	% of C-level executives from B2B companies	% of C-level executives from B2C companies	All C-level respondents
Creating new revenue streams by using ESG objectives to identify new products, customers, and/or geographic markets	16%	9%	13%
Changing business processes to incorporate good ESG practices	13%	10%	13%
Contributing to ESG issues important to the larger community	8%	11%	10%

*Source: [67]*

Green finance faces many risks and challenges due to problems related to environmental elements and features specific to the financial system. When it comes to risks to the financial sector due to climate change, reference is made to the categories (see Figure 2.1):

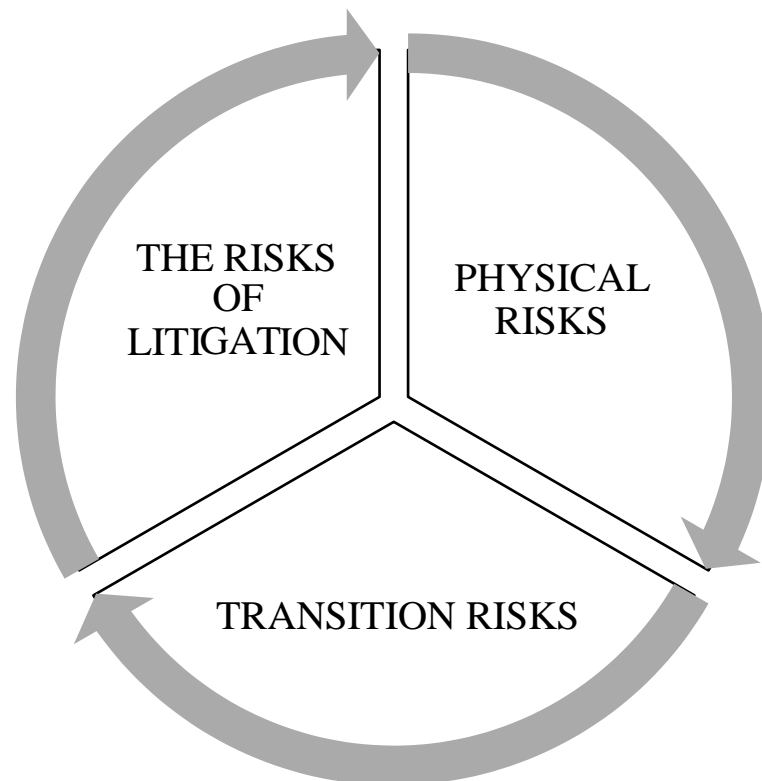


Figure 2.1 – Risks to the financial sector due to climate change

*Source: built by the author*

1) Physical risks arise as a result of the impact of climate risks on people and the natural system (for example, floods, droughts, storms). This usually refers to extreme events that occur more frequently (hurricanes, floods), as well as global warming and sea level rise in the long term. The first category represents acute risks, and the second - chronic risks. The first category causes unforeseen shocks on both the supply and demand sides with short- and long-term economic consequences; the second category affects potential GDP. and growth in the medium and long term.

When they arise, physical risks can affect the value of collateral and assets and significantly affect insurance. According to the estimates of the European Central Bank, the share of disasters caused by weather conditions is growing worldwide, and losses accounted for more than 80% of the total losses caused by disasters reported in insurance for 2018. This year was also the peak in the frequency of occurrence of events leading to weather-related losses [64].

2) Transition risks arise due to the transition to a low-carbon economy (manifested in the loss of economic value due to foreclosure on assets, new regulations, the emergence of breakthrough technologies, changes in investor sentiment and consumer behavior, reputational risks or image). They cause shocks in the economy from the supply and demand side or economic growth with short- and medium-term consequences. The least affected sectors are healthcare, mass media, information technology, services, medium exposure in the banking sector, insurance, aerospace and defense, as well as high risks associated with the chemical industry, utilities, energy and automotive. Despite the fact that these are high-emission sectors, there are large sources of emissions in each sector. Some companies' emissions are associated with high temperatures even in industries for which low emissions are defined, such as healthcare. According to the MSCI report, 57% of companies listed on the stock exchange are not yet ready to maintain global warming well below 2°C, preferably up to 1.5°C, above the pre-industrial level, as stipulated by the Paris Agreement. Another important observation is that companies' carbon dioxide emissions are starting to rise as the global economy begins to recover from the pandemic [75].

As for the risks of the transition period, the results obtained in the literature are ambiguous and emphasize their complex nature. The market assessment of transition risk is a complex stage that will last for a longer period. At the same time, their analysis is hindered by a lack of information; when they exist, they are often impossible to compare due to the lack of generally accepted standards.

3) The risks of litigation arise from parties who have suffered losses due to the effects of climate change.

Returning to the focus on ensuring good results for shareholders, if this is the main concern of companies, then because of the decisions taken, potential damage to the environment may be caused if these issues are not taken into account. This leads to investments in projects that lead to environmental pollution and carbon dioxide emissions or affect a certain area. Profit maximization and orienting solutions in the short term may have a cumulative impact on the environment or may not manifest themselves immediately. Another important aspect is that shareholders do not necessarily feel this influence in most cases.

Another type of problem is the development of «green» or sustainable financing in developing countries, where measures are needed to adapt to climate change or mitigate its consequences. This is often hindered by underdeveloped markets, high capital costs, weak regulation or political instability.

In recent years, companies have been increasingly encouraged to focus on stakeholders, aiming to ensure that the business creates value for all stakeholders: employees, shareholders, customers, suppliers, creditors and the community as a whole. Such an approach, to which we can add concern for future generations, could help protect the environment and reduce the long-term effects of climate change.

Financing the transition to a climate-neutral economy involves attracting a significant amount of funds, much more than those offered by public institutions, which requires the participation of private investors, for whom new opportunities are opening up. Moreover, the demand for «green» financial products is expected to grow. The transition to a low-carbon economy is a promising long-term opportunity for

businesses, as financial institutions are able to support green financing. Therefore, exploring the possibilities and new taxonomies and standards becomes a central task.

Institutions that include «green» financing in their strategy can enjoy numerous advantages:

1) In the face of the growing pressure in recent years to focus on environmental protection and mitigation of climate change, companies can have a better image, which contributes to improving reputation and credibility, as well as improving relations with government or regulatory agencies, partners, customers and investors. This improvement is due to the understanding of environmental risks and their proper management. This can facilitate access to new markets, provide a competitive advantage, or increase resilience to changes in the market due to the perception of the effects of climate change. Adapting to new customer preferences opens up new opportunities, laying the foundation for a suitable medium- and long-term cooperation [67].

2) Diversification of portfolio risks by reducing the share of assets associated with environmental risks. Such weighting can prepare companies and institutions for new regulations (capital requirements based on existing «green» assets, special reporting requirements, stress testing).

3) «Green» financing is an opportunity for new research and analysis. Green finance promotes financial innovation, and even if it brings uncertainty, it also promotes the positive side of innovation.

## **2.2. Financial innovations in the digital dimension**

One of the ways of digital innovations in the field of financial management is the introduction of an automated financial accounting system, including for transactions from external systems, and data consolidation in real time. The system helps organizations to close when they want and make adjustments as needed. Financial

services can consistently coordinate their business practices, including initiating approvals, distributing reports, tasks, integration, and more within a flexible business process structure. Machine learning is embedded in the structure of the core processes to help further automate manual actions, such as submitting an order request by a customer and receiving an invoice by a supplier, while simultaneously identifying anomalies in logs and scheduling operations to reduce risks and support exception management. The key features of automation of financial processes are (see Figure 2.2):

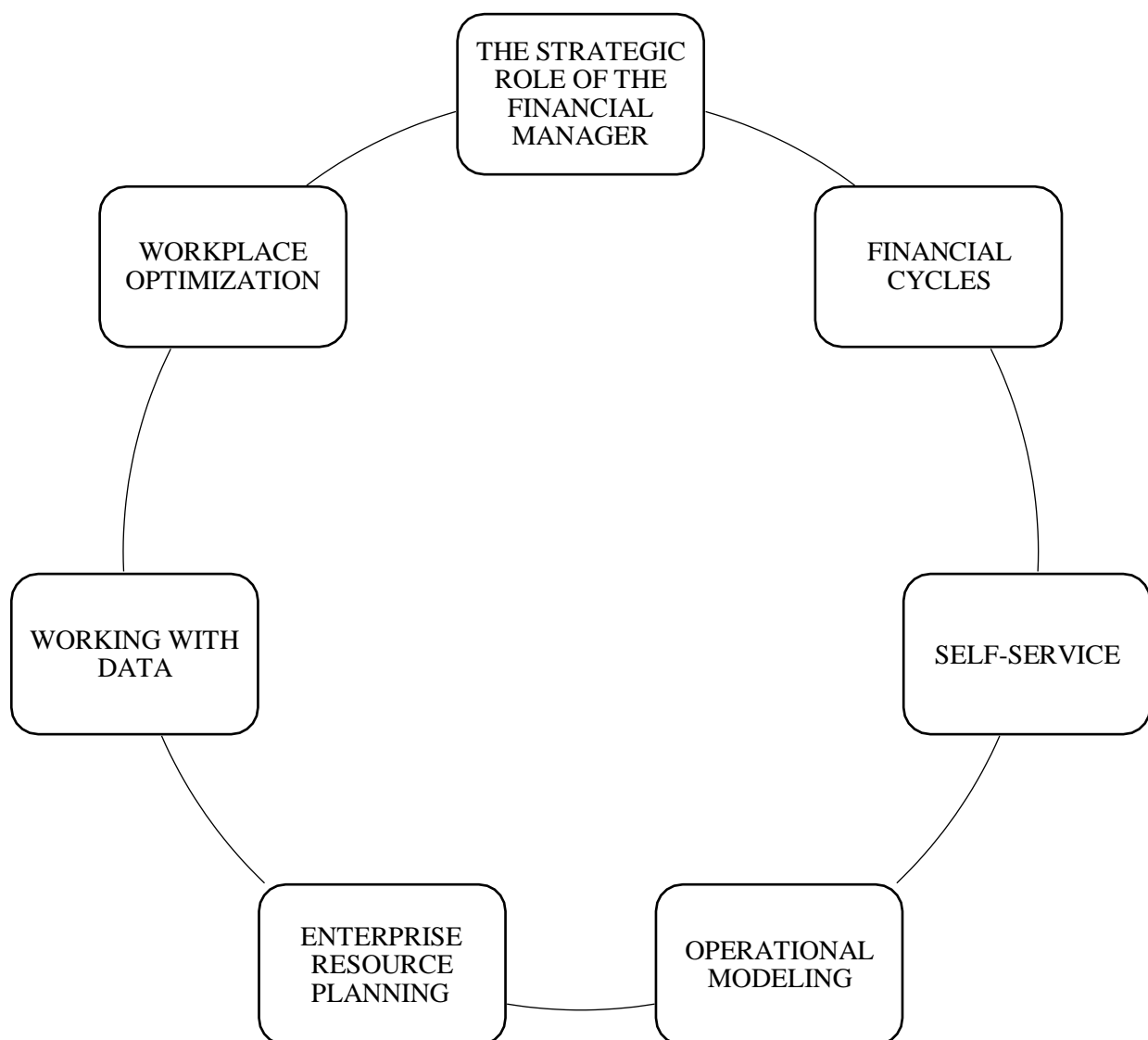


Figure 2.2 – The key features of automation of financial processes

*Source: built by the author*

### 1) The strategic role of the financial manager.

The software accelerates the evolution of the finance department from a transaction operator to a strategic consultant by combining critical financial, human resources and operational data across the enterprise and supporting continuous and collaborative planning across the enterprise. Finance can help businesses understand the «why» behind the «what» with fresh ideas [76].

### 2) Financial cycles.

With the help of the accounting and reporting program, you can create consolidated financial statements in real time, management reports and special analysis. The modeling engine supports rolling forecasts with integrated scenarios, so you can identify problems in real time, investigate the causes and dynamically update the forecast — not only at the end of the period [71].

### 3) Self-service.

Self-service is stimulated taking into account user roles, which provides context and optimizes work, while providing financial confidence and control using a single role-based security model, continuous audit capabilities and visibility of the data chain. For self-analysis, users have access to the reporting and analytics tools that are most suitable for each user's needs, connected and protected using the same data object model, providing everyone with useful information without worrying about data integrity or assembly [70].

### 4) Operational modeling.

The software helps organizations apply a skills-based approach to optimize financial talent in new operating models, applying machine learning and analytics to help them understand what skills they possess and what skills they need, providing tools to support new models and career moves. The software helps financial leaders equip their teams with new financial technologies, identifying areas where new innovations can have the greatest impact, and implementing them into core financial processes as part of regular releases. The new technology is implemented with constant

user experience, providing flexibility and scalability in the face of changes without risk or manual effort using special tools [62].

#### 5) Enterprise resource planning.

The software provides financial, workforce and talent management, collaborative planning and comprehensive reporting within a single cloud architecture linked by the same data object model. As needs evolve, organizations can extend their working hours by developing applications in the same environment with a familiar experience, data source and security model, opening up new opportunities to meet their unique needs and increasing the flexibility of the organization [54].

#### 6) Working with data.

The software is based on an intelligent database that allows organizations to receive, transform and analyze data at any level of detail, combining financial transactions and employee transactions with data on future plans, data from other systems, peer-to-peer tests and publicly available information such as census data. The software provides a single place to manage, protect and distribute the most important business data, allowing financiers to put their data center in order [51].

#### 7) Workplace optimization.

The future of work is more distributed, flexible and transparent, which helps to accelerate decision-making cycles and their execution. The software provides self-service, automated processes, makes data and analytics available to users at critical moments, and also supports large-volume scenario modeling and company-wide planning - all connected and secured in one place. There is more time to confidently manage new changes, while maintaining confidence in the security and quality of data.

Another opportunity for financial innovation in the digital dimension is the use of artificial intelligence (see Table 2.2)

Table 2.2 - Types of AI and its possibilities

<b>Essense of AI</b>	<b>What it can do</b>	<b>What it can't do</b>
<u>The original AI:</u> Artificial intelligence, or AI, is a catch-all term for technologies that allow	AI has been around for years, and some organizations have broadly used it to automate	Fully replace human workers. Answer complex questions that require

<b>Essense of AI</b>	<b>What it can do</b>	<b>What it can't do</b>
machines to mimic human intelligence, perform tasks autonomously, and learn from experience. Traditional AI capabilities include things like robotic process automation (RPA), natural language processing (NLP), and computer vision.	tasks, uncover patterns and correlations, and help their organizations more accurately determine their futures based on past data.	understanding of multiple topics. Handle ambiguity or adapt to dynamic or unforeseen situations.
<u>Machine learning:</u> A data analysis method that uses algorithms and historical data to identify patterns and make predictions; it learns from examples rather than following explicitly programmed rules.	Predictive maintenance. Answer customer questions via a chatbot. Perform tasks done by virtual assistants. Match transactions such as invoice to PO matching or intercompany balancing. Uncover trends based on previous data and user performance.	Reason effectively and understand the reason behind an anomaly. Perform well with substandard data.
<u>Generative AI:</u> A subset of AI in which machines can create new content such as text, code, voices, images, videos, and more. It can mimic human work by creating new content using the data it was trained on, and it can also add contextual awareness and decision-making skills to workflows.	Prepare a budget to actuals variance analysis or write a report on the major drivers of your organization's working capital. Help humans do their jobs better with greater efficiency and effectiveness.	Generative AI shares limitations with traditional AI and ML but may have the potential to transcend those limitations because of its content-generating qualities. Sometimes generative AI produces inaccurate results that seem confidently accurate.

*Source: built by the author based on [6], [10], [13], [18], [19], [24], [49]*

The practical use digital tools mentioned in finance are the following:

1) The original AI:

– Finance process streamlining: Automate repetitive and rule-based tasks in finance, such as invoice processing and account reconciliations.

- Intelligent customer risk assessment and cash forecasting: Analyze patterns and historical data to help better predict when customers will pay and assess the likelihood a customer will not pay or default.

- Document processing: Automate the extraction and analysis of information from financial documents such as invoices, purchase orders, and contracts.

## 2) Machine learning:

- Intelligent supply chain: Help predict (and potentially prevent) supply chain disruptions by making in-the-moment decisions based on historical data and previous patterns.

- Predictive forecasting: Use actual financial results and statistically validated drivers to help predict reliably accurate forward-looking financials.

- Tax compliance: Identify «holes» in data provided by other functions and potentially reduce the human hours needed to reconcile data that the tax department needs for compliance and assessing risk.

## 3) Generative AI:

- Scenario modeling: Generate forward-looking scenarios with multivariate assumptions and narrative generations per your choice.

- Intelligent avatars: Interact and engage in a more dynamic way.

- Regulatory monitoring: Monitor new regulations and provide insights on potential implications and impact.

Based on previous analyses we can point out potential generative AI use cases:

### 1) Strategic Finance

- Assess corporate development deals and run due diligence.

- Research vast data (financial, industry, socio-economic, political) and generate insights for strategy development.

- Generate scenarios, summarize, and draw initial conclusions for capital optimization.

### 2) Financial planning and analysis:

- Produce management reporting analysis, commentary and presentation.

- Produce first version of plan and forecast models of expensive budgets and forecasts.

- Generate performance insights, variance, and/or decision analysis.

### 3) Business unit Finance:

- Produce competitor analysis and insights.

- Produce demand forecast and sizing.

- Produce budgeting, planning, and performance/variation analysis.

- Produce ad hoc/scenario analysis.

- Produce product costing.

### 4) Transactional Finance:

- Process invoices, management payments, billing, and collections.

- Predictive risk modeling.

- Virtual collection assistants.

- Cognitive spend analysis.

### 5) Controllership:

- Automate data entry and reconciliations.

- Prepare internal and external financial reporting, including commentary and insight generation.

- Source-to-target COA mapping.

- Intelligent contract review.

### 6) Internal audit:

- Identify potential risks and detects fraud.

- Generate internal audit reports.

- Monitor compliance with regulations and internal audit reports.

- Monitor compliance with regulations and internal.

### 7) Treasury:

- Automate cash forecasting, cash management, and better visibility into

cash flows.

- Report FX and currency positions, perform counterparty risk, and analysis.

- Advise on optimal mix of investments for liquidity need.

8) Tax:

- Automate tax preparation and reporting.

- Provide insights on new tax laws and provisions.

- Monitor compliance with tax regulation.

9) Investor relations.

- Develop investor report and communication.

- Predict analyst questions and prepare responses.

- Value company for capital markets financing.

- Interpret and advise on disclosure rules and regulations.

### **2.3. Dynamic finance in a strategic dimension**

External factors such as market turmoil, consolidation and convergence of industries, accelerated technology development and new regulatory requirements mean that financial institutions need to react and adapt. The growing need for flexibility, increasingly driven by external factors, has prompted many CFOs to think about how their organizations can be more streamlined, more responsive, and make changes faster.

Dynamic financing is a new way of working. We have identified a set of principles that will help financial managers better understand how to turn finance from a business function into a dynamic potential, while continuing to fulfill their duties as a manager and operator (see Table 2.3).

Table 2.3 - Principles of dynamic finance

<b>PRINCIPLES</b>	<b>ESSENSE</b>	<b>TOOLS</b>
Transformation mindset	Not an event, but a continual evolution	Accept that ambiguity and continuous evolution are here to stay – the pace of business has changed. Have a strong, flexible foundation - core technologies, automated processes, structured data models, and savvy talent - that allows to dynamically support the business in the face of evolving forces.
Workforce of now	Tech-savvy talent and enduring human capabilities	Be intentional about workforce and their experience. Invest in and foster your people - across all levels. Skills development should be a part of business as usual - and should span foundational finance skills as well as tech-savvy and problem - solving skills. Give opportunity and space to grow.
Lights-out processes	Machines first, then people	Reimagine and redesign processes to be performed by systems and automation. Leverage technology upgrade cycles and programs. Make sure human interaction adds and drives value.
Information on demand	All the time	Meet the enterprise’s evolving and growing seek for fast and reliable information. Rethink how information is made available today to fully align to business needs. The speed at which information is consumed has dramatically shifted, and the business has high expectations.
Data for storytelling	Rigid governance for flexible data	Establish strong governance over data for both internal and external consumption. Make sure the organization is well versed in how data is structured, created, maintained, secured, and consumed - allowing the organization to be more responsive and flexible with analysis.
No-regrets tech	Digital and flexible core	Leverage modern, compatible, and continually updating platforms that can transform and scale with the business.

PRINCIPLES	ESSENSE	TOOLS
		Take advantage of platforms that continually evolve to bring new capabilities to finance.
Sense and learn	Detect risks, and prepare the organization for what's next	Develop the capability and capacity to sense, weigh, and mitigate risks. Know and measure the most important risk and performance indicators for the business, and be prepared to respond.

*Source: built by the author based on [16], [28], [29], [35]*

The proposed principles and advantages of their use are presented in more detail below:

1) Transformation mindset - this is not a single event, but a continuous evolution.

Uncertainty and continuous evolution will not go away — the pace of doing business has changed. Having a solid and flexible foundation — experienced talents — allows you to dynamically support your business in the face of changing factors.

Flexible and secure Processes: A built-in cloud platform, built from the very beginning with a customizable business process structure to dynamically support changes with mouse clicks rather than code, can help CFO cope with changes now and in the years to come. The adaptable architecture allows users to easily respond to changes by adding new product lines, legal entities and reorganizations, as well as changing reporting parameters in minutes, not months.

2) Workforce of now - tech-savvy talents and steady human abilities.

You should be attentive to your employees and their experience. Invest in your employees and develop them at all levels. Skill development should be a normal part of business — and should cover basic financial skills as well as technical savvy and problem solving skills.

Modern Experience: Using natural language, personalized experience and mobile accessibility to enable finance departments to access their information instantly and continuously, creating opportunities for corrective action using embedded technologies such as machine learning (ML). Since the technology is updated every six months, all

financial users in the ecosystem have constant opportunities for professional development.

3) Lights-out processes - rethinking and redesigning processes that should be performed by systems and automation. Use cycles and technology modernization programs that will help you achieve these results. Make sure that interacting with people adds value.

Automated and scalable financial processes: An in-memory architecture with ML-based financial processes provides instant accounting results, setting a new standard of efficiency. The software is easily integrated and works with other systems. Continuous innovation through functionality automatically transforms business events into accounting records, providing users with rich, detailed accounting data for faster and more accurate closing and obtaining more detailed information for decision-making.

4) Information on demand - meeting the growing demand of the enterprise for fast and reliable information. It is necessary to rethink how information becomes available today in order to fully meet the needs of the business. The speed at which information is consumed has changed dramatically, and businesses have high hopes for it.

Democratize your data and analytical information: Since data and business processes are intertwined during the working day, reporting is built into the platform without any additional business intelligence tools needed as "off-the-shelf" solutions. As transactions are completed, the reporting is updated in real time. As changes are made, such as the addition of new organizational structures, cost centers, or product lines, reporting is updated in real time. Business users have access to all relevant data using reporting tools configured for their roles, so everyone works from a single source of credibility. This leads to faster analysis and more confident decision-making, which leads to better business results.

5) Data for storytelling - rigid management for flexible data. Establish strict management of your data for both internal and external consumption. Make sure that the financial organization is well versed in how data is structured, created, maintained,

protected and used, which allows the organization to approach analysis more quickly and flexibly.

**Intelligent Data Core:** The software reliably integrates data inside and outside your organization, providing built-in reporting on any data dimension in real time. This means that finance and accounting departments can provide stakeholders with the ability to make better decisions through self-service reports and interactive dashboards, allowing them to instantly jump to transaction details for deeper analysis.

6) No-regrets tech - using modern, compatible and constantly updated platforms that can transform and scale together with the business. Take advantage of platforms that are constantly evolving to bring new opportunities in the field of finance.

**Unique architecture:** An in-memory object architecture and an analytical platform with its own dimension for managing people and finances, helps business leaders understand what is driving profitability.

7) Sense and learn - identify risks and prepare the organization for what will happen next. Develop the ability to sense, weigh and reduce risks. Know and measure the most important risk and performance indicators for your business and be ready to respond.

**Intelligent Automation:** An adaptable architecture embeds ML into its core for processing large amounts of data and detecting errors in the context of business processes. By constantly identifying anomalies and inaccuracies, business users can apply the data obtained to take corrective measures in real time, without waiting for the accounting department to close. As data grows, intelligent automation is likely to become a necessary part of financial risk mitigation strategies.

Finance must quickly adapt to and support the new strategy and strategic plans of the organization. These include:

- A new segment of external reporting, which should be supported by all financial systems, processes and controls.
- New processes of pricing and profitability analysis, order management and revenue recognition.
- New financial planning and forecasting processes with updated

assumptions and models.

- A new investor relations strategy designed to bring the success of the organization to the market.
- Complete assessment and implementation of the management and control system for a new business line.

A dynamic financial specialist should be ready to turn around and support the launch of a new business segment, exceeding investors' expectations regarding the timing of changes. This includes:

1) Core6 and edge7 technologies that are adaptable and modern, with minimal investment required to adapt to new processes and results.

Expected result:

A modern billing application allows you to quickly make changes to processes and is integrated with your latest generation ERP and general ledger. You can easily set up new legal and management objects and hierarchies. Cloud-based financial consolidation tools (SaaS) and an external reporting tool are designed to provide flexibility and are quickly configured to create reports on a new business segment [25].

2) A well-defined data model covering the financial and operational spheres, with strict management provided by agile technology [22].

Expected result:

Centralized access to standardized data using modern cloud-based planning and reporting tools that allow you to quickly and efficiently develop and implement new reports. The team managing your cloud planning tool (SaaS) quickly updates the planning processes for a new business segment.

3) Developed organizational risk assessment methodology with a high degree of automation to support risk reduction efforts [23].

Expected result:

Proactive identification, assessment and mitigation of risks using an inter-functional management program. Control is no longer a financial problem, but a strategic advantage that helps to launch a new business quickly, while limiting the likelihood of costly and public mistakes.

4) Centralized and consistent corporate data processing strategy and tools that provide continuous analytics on demand [27].

Expected result:

Access to data — regardless of the timing associated with monthly or quarterly financial closure — to conduct a comprehensive and accurate assessment of the legacy business. Having access to customizable data and dashboards with accurate financial indicators in real time, you can confidently report to investors and the market, as well as meet the requirements of external audits.

5) A talent attraction and service delivery model that encourages the interdisciplinary development of stable, growing and emerging skills and is designed with business needs in mind [63].

Expected result:

The finance team has organization-wide experience - commerce, supply chain, business operations, information technology - and is empowered to guide changes in financial activities that cross functions and domains to facilitate separation, avoid confusion, and move faster to an updated plan. The staff is inspired by the challenge of alienation and approaches it with enthusiasm.

6) Installed cloud datasets, including FP&A, rec and consolidation tools, as well as rep, which are easily migrated to a new organization [73].

Expected result:

Saving significant investments in resources — from people to capital — thanks to the ability to replicate and transfer the necessary data, processes and technologies to a separate business. Having high-quality data facilitates a smooth divestment process and allows you to reduce the need for Transitional Service Agreements (TSA), allowing you to focus on the remaining core business.

7) Contactless back office with improved end-to-end processes, optimized management and cognitive information generation [53].

Expected result:

Increase the transparency of all transactions with the help of a distributed ledger and are confident in the quality and accuracy of your financial information, which

allows you to quickly assess profitability. Cognitive analytics helps you identify price increases by suppliers in advance, allowing you to make decisions about pricing, supplier decisions, and more.

8) Thoughtful balance sheet management and cash flow management with the help of technical capabilities of liquidity management and forecasting.

Expected result:

Improved visibility and control over cash, which allows you to make decisions more quickly and choose sources of working capital and business financing.

9) Financial capabilities — technical process, talents and data — are programmed to change [53].

Expected result:

The financial company has identified in advance a set of opportunities for strategic cost control in order to compensate for the increase in costs as a result of the market shock. This provides management with many options on how to mitigate the impact. What once seemed like an insurmountable challenge has now become an opportunity for financial prosperity.

Many financial services can work as fast as they need to, especially when they are trying to help their organizations cope with outages. There may be several reasons for this (see Figure 2.3):

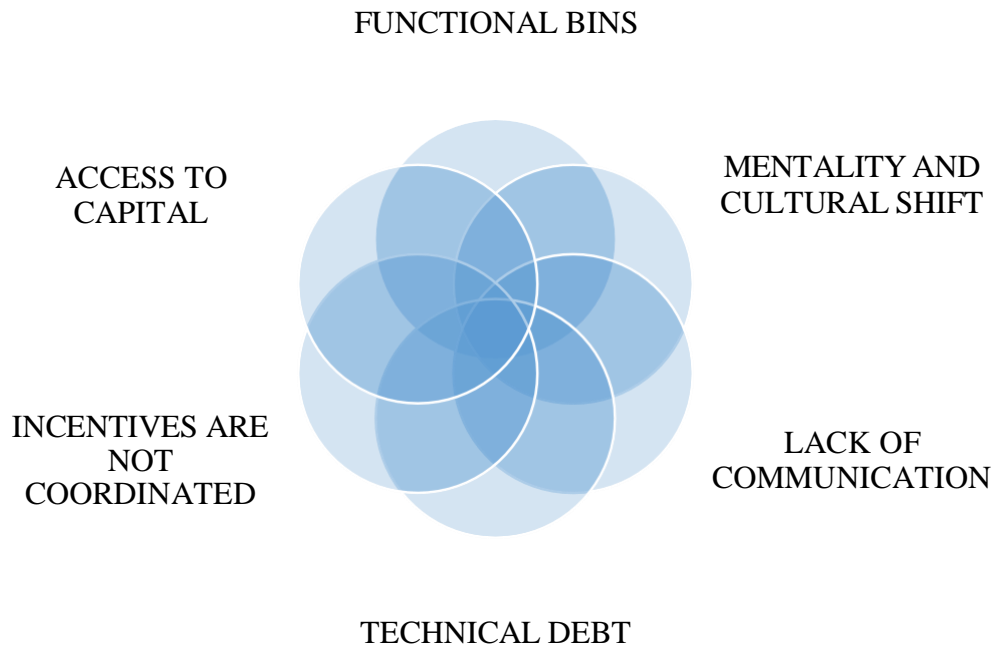


Figure 2.3 – Reasons for failure of financial innovations

*Source: built by the author*

1) Functional bins.

Too much work is done in isolation, when one financial part does not interact with another or with the business in order to understand the subsequent consequences of the decisions made [14].

2) Mentality and cultural shift.

Change is difficult for any function, but it is especially difficult for finance, which has always played an important role in ensuring stability. A change of mindset, according to which flexibility is the key to stability, is necessary for the successful passage of change.

3) Lack of communication.

A lot of things need to happen to transform finance, and they don't always seem interconnected. But without integration, it is impossible to create a binding fabric of dynamic financial potential.

4) Technical debt.

The transformation of technical architecture and platforms can be expensive and difficult to implement. Moreover, system changes alone will not fix the broken processes and underlying data problems [50].

5) Incentives are not coordinated.

The reasons for the transformation of an organization may come from different points of view, but they must be coordinated throughout the business and supported by management. Everyone should know how to answer the question: what is the vision of the organization? [44]

6) Access to capital.

Finance directors compete for capital. Many CFOs rely on traditional ROI and economically sound business cases. Financial directors should consider increasing the value of intangible assets, such as better and more timely information, in order to justify the need for the investments they need.

## **Conclusions to Section 2**

Investors are increasingly using a company's ESG rating to determine where they are spending their money. This concerns environmental, social and governance issues. One of the most noticeable consequences of the high efficiency of ESG are financial factors that are directly related to the desires of shareholders regarding value.

Green finance faces many risks and challenges due to problems related to environmental elements and features specific to the financial system.

As a result of the impact of climate risks on people and the natural system, there are physical risks, risks of transition to a low-carbon economy, risks of litigation from parties who have suffered losses due to the effects of climate change. Institutions that include "green" financing in their strategy can enjoy numerous advantages. Green financing is an opportunity for new research and analysis.

The software accelerates the evolution of the finance department from a transaction operator to a strategic consultant. With the help of the accounting and reporting program, you can create consolidated financial statements in real time, management reports and special analysis. Self-service is stimulated taking into account user roles, which provides context and optimizes work, while providing financial confidence and control using a single security model. The software helps organizations apply a skills-based approach to optimize financial talent in new operating models; provides financial, workforce and talent management, collaborative planning and integrated reporting within a single cloud architecture.

The software is based on an intelligent database that allows organizations to receive, transform and analyze data at any level of detail. The future of work is more distributed, flexible and transparent, which helps to accelerate decision-making cycles and their execution.

Since data and business processes are intertwined during the working day, reporting is built into the platform without any additional business intelligence tools needed as «off-the-shelf» solutions. The software reliably integrates data inside and outside your organization, providing built-in reporting on any data dimension in real time.

The adaptable architecture embeds ML into its core for processing large amounts of data and detecting errors in the context of business processes. Core6 and edge7 technologies are adaptable and modern, with minimal investment required to adapt to new processes and results. A well-defined data model covering the financial and operational spheres, with strict management, provides additional flexibility. The developed organizational methodology of risk assessment with a high degree of automation supports efforts to reduce risks. A centralized and consistent corporate data processing strategy provides continuous analytics on demand.

The talent acquisition and service delivery model encourages the interdisciplinary development of stable, growing and emerging skills and is tailored to business needs. A contactless back office with improved end-to-end processes optimizes the management and generation of cognitive information. At the same time, many financial

services can work as fast as they need due to the presence of functional bunkers, a certain mentality and cultural shift, lack of communication, technical debt, limited access to capital.

## SECTION 3

### DIRECTIONS FOR IMPROVING THE EFFICIENCY OF THE FINANCIAL ACTIVITY OF THE ENTERPRISE

#### 3.1. Approaches to improving the quality of financial transactions

Factors other than effort and investment affect managers' ability to improve the quality of income generation. Achieving the stable, profitable and scalable growth that markets demand is a complex, interdisciplinary, technology-based sport in which the team that connects the largest number of points wins. Factors such as teamwork, information exchange, profitability of commercial assets and coordination of people, processes and operations play a much bigger role in the growth formula than most managers realize. Revenue operations is a systematic approach to coordinating a complex set of commercial systems, operations and processes that support the revenue cycle in your business to accelerate growth and maximize the value of the company. Private firms are increasingly resorting to income-generating operations, as this can potentially provide greater growth and value at the expense of existing resources and assets (see Figure 3.1) [8].

1) Automation and optimization of the cycle from withdrawal of funds to receipt of cash.

According to an analysis conducted by the Institute for Revenue Promotion, from 1 to 5% of EBITDA is quietly leaking from companies due to 11 failures in the product-cash cycle. Automation and optimization of the «from order to cash receipt» cycle can increase revenue by 5%, reduce sales costs by 5%, increase forecast accuracy by 34%, reduce the number of billing errors and disputes on orders by 35% and reduce the time required to receive cash by more than 10%., according to a Salesforce study.

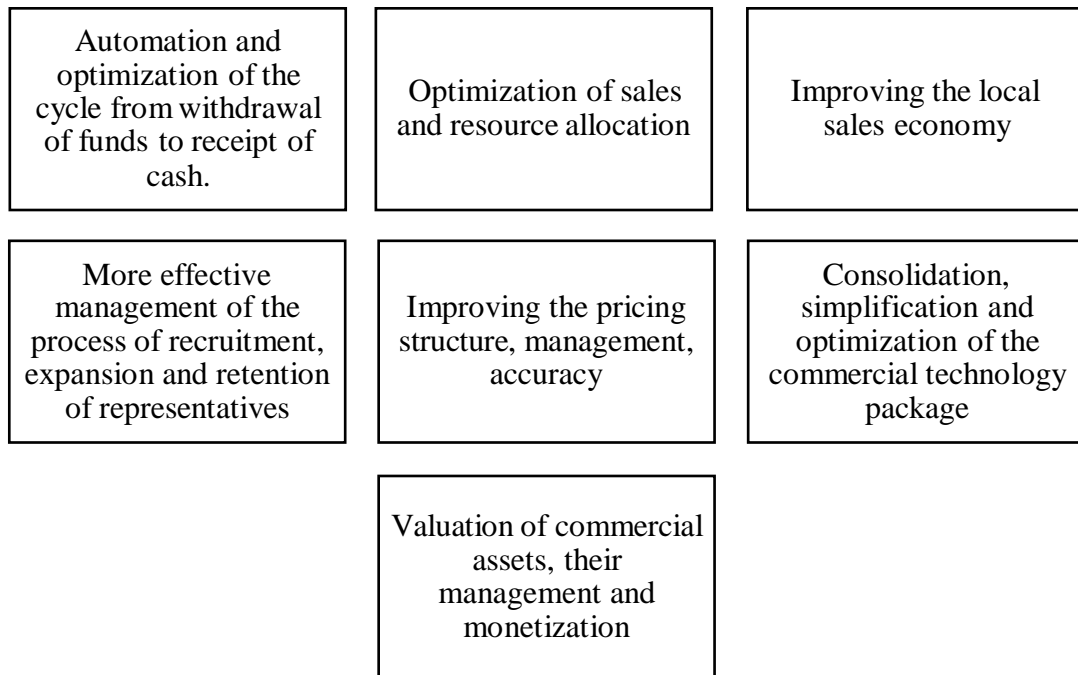


Figure 3.1 – Income-generating operations

*Source: built by the author*

## 2) Optimization of sales and resource allocation.

Customizing your commercial architecture – the structure of the sales department and their key incentives, quotas and roles, rules of engagement and engagement within in– to take advantage of digital technology more effectively can double the speed, engagement and productivity of your salespeople at the forefront, according to a study in revenue accounting operations. A properly designed and optimized commercial architecture can contribute five or more points to profit, since sales systems can generate completely different results in terms of rapid revenue growth and increased profit share without adding resources and costs, depending on variables such as a set of channels, types of customer service, coverage ratios, sales efforts, and the emphasis is placed on the product. For example, according to a study conducted by Professor Leonard Lodish of Wharton, a pharmaceutical company was able to increase margin sales by \$25 million – an increase of 8% – by changing the size, deployment and focus on the product of its sales department [3].

## 3) Improving the local sales economy.

Transition to a more digital, data-driven, distributed and diverse sales model («4D») can increase sales productivity by more than 50% while reducing costs by 10% compared to traditional field sales.

4) More effective management of the process of recruitment, expansion and retention of representatives.

An increase in the number of sales representatives by 5% can increase sales costs by 4-6% and reduce overall revenue by 2-3%. Salesforce's ten points of attrition could nullify revenue and margin plans if no one takes advantage of the weakness by increasing the cost of sales by more than 20% and achieving revenue by 8%, according to an analysis conducted by the Revenue Incentive Institute [5].

5) Improving the pricing structure, management, accuracy.

According to an analysis by Wharton Business School, more disciplined and optimized pricing can increase margins by 3-10% with existing resources and multiply profits with limited investments. Data-driven pricing can lead to even greater profit margins through personalized pricing and innovation [9].

6) Consolidation, simplification and optimization of the commercial technology package.

94% of B2B sales organizations are actively consolidating and simplifying their commercial technology portfolio, as these investments begin to exceed \$10,000 per sales representative per year. Measuring, optimizing and connecting a stack of commercial technologies to simplify a merchant's workflow and increase its value can lead to a 50% increase in productivity and return on assets, according to the Tuning the Growth Engine report [1].

7) Valuation of commercial assets, their management and monetization.

An important and often overlooked factor hindering managers' ability to assess and manage growth is that the commercial assets that generate growth are difficult to measure, manage and report on, as they are largely treated as «intangible assets» – just like research and development, «know-how of processes» and brand capital. Thus, they are not displayed either in the balance sheet or in the management report.

The financial reality is that a large part of the value of modern business lies in the form of intangible assets of growth, such as fairness in customer relations, brand preferences, data and analytical information, process know-how and digital channel infrastructure. A number of commercial and academic studies have documented that, with proper valuation and accounting, these intangible assets account for more than 80% of the business value. The ability of revenue departments to use these assets to increase future revenue and profits by increasing customer preferences, conversions, loyalty and usage while increasing price allowances is a major factor in the value of the firm [12].

Preventing adverse business transactions, especially those in which the other party is reluctant to follow an agreed payment schedule, is critical to the health and sustainability of the company. Here's how to avoid such situations (see Figure 3.2) [31]:

1) Due Diligence: Before entering into any business relationship, study a potential client or partner. Look for reviews, past deals and any available financial information to assess their reliability. If there is no such information, ask. You need to be sure that the bills will be paid.

2) Clear contracts: Always make a written agreement. Clearly indicate the terms of payment, amounts, payment terms and provisions on penalties for late payment. Both parties must sign.

3) Advance payments: If you offer something that requires significant time or resources, ask for an advance payment or a deposit. This tests the commitment of the other party.

4) Payment stages: For longer projects, set the payment stages. This ensures that you will receive payments at different stages of the project, and not just at the end.

5) Penalties for late payment: this can keep customers from delaying payments. It is important to specify these penalties in the contract. However, this is not the best system if you don't want to hire a lawyer to confirm them.

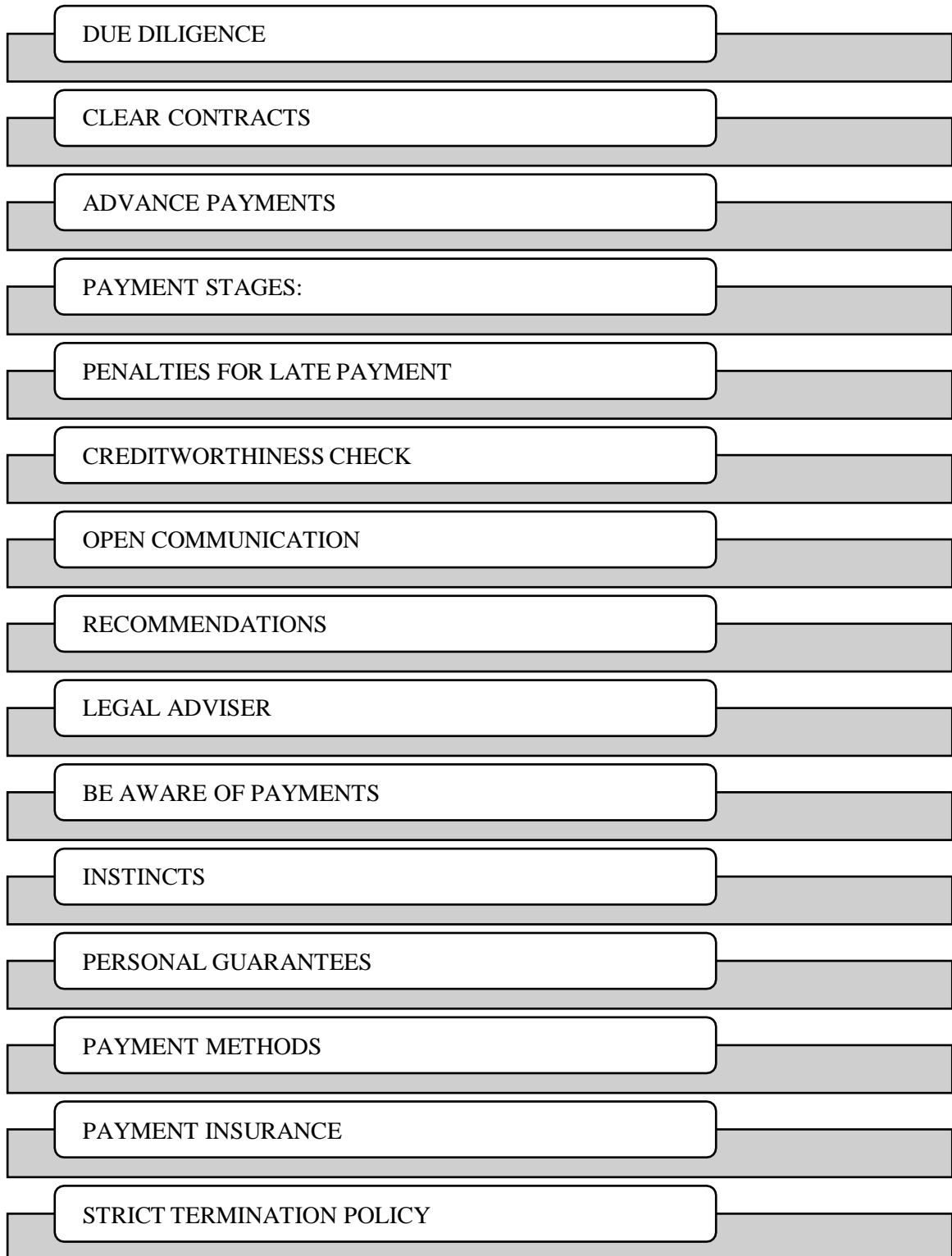


Figure 3.2 – Tools to keep agreed payment schedule

*Source: built by the author*

6) Creditworthiness check: When making significant transactions, check the creditworthiness of a company or an individual. This can show their financial stability and payment history.

7) Open communication: Sometimes a simple conversation can give you an idea of the problems that a customer may have about payment

8) Recommendations: Request financial recommendations and ask about the experience of partners. Company owners should feel comfortable having recommendations as part of a review of their customers.

9) Legal adviser: It may be useful for a lawyer to review contracts or work for remuneration. They can advise on the enforcement of contracts and what to do in case of violations.

10) Be aware of payments: implement a system in which you can regularly track payments and monitor their implementation, and also make sure that your financial team is accountable. They should warn you in advance and often if they see something unusual. If the payment deadline is approaching the due date, the financial team will send a reminder, and they should have an established relationship with their colleagues.

11) Instincts: If you don't like something about a deal or a person, it's okay to leave. It's better to avoid a potential bad deal than to try to fix it later.

12) Personal guarantees: For a new business or a business without a proven track record, consider obtaining a written personal guarantee from business owners or major parties.

13) Payment methods: Make it easier for customers to pay by accepting various payment methods, including credit cards, bank transfers and online payment platforms.

14) Payment insurance: For large transactions, consider payment insurance or trade credit. This can protect the company from defaults or payment delays.

15) Strict termination policy: Make sure that customers know that you will stop working if payments are delayed, and specify this in the contract. This can have a significant negative impact on the business of a potential client, and this is not what you would like to do. Stopping work is the only way to get paid without involving lawyers.

Several financial management strategies that will help you overcome the stress associated with money [37]:

1) Careful financial planning:

The first step to relieving financial stress is knowing how much your business is worth and where the money comes from. To make the right financial plan, start by organizing your finances. The easiest way to do this is to create a business financial plan. When the plan is ready, you can regularly check your progress in accordance with this plan and make adjustments as necessary. You need to be well versed in your finances and understand your sales cycles and business expenses. This information will help you plan profits, future growth and anticipate changes in cash flow. Control over your finances and proper management of them will lead to an increase in money.

2) Fulfillment of tax obligations.

One of the most common things business owners worry about is taxes. Unfortunately, when it comes to taxes, ignorance is not bliss. It is necessary to know and comply with the tax rules. Failure to comply with this requirement can lead to large fines and even lawsuits.

It's not always possible to predict exactly how much taxes you'll end up paying, but it's possible to do some tax planning that will help you avoid the dreaded unexpected tax bill. By making tax planning a permanent part of your cash management strategy, you can stay ahead of taxes and be ready for any tax season. Paying taxes doesn't have to be a source of stress or headache.

3) Focus on creating multiple sources of income.

Creating multiple sources of income is one of the most effective ways to reduce the risks associated with running a business. Diversification of income sources can help ensure that your business is not overly dependent on a single customer or product, which can lead to disaster in an unpredictable market.

By exploring new revenue opportunities and developing a range of products or services, the flexibility needed to weather any storm is provided. Accounting for multiple sources of income is a smart and proactive way to build a more sustainable business regardless of your industry or niche.

For example, while one-time sales can be profitable, adding a subscription model to your product line can provide a stable source of steady income. By offering a subscription service, you can forecast your monthly income and plan for the future with a greater degree of confidence.

The bottom line is that financial stressors in business are equated with fewer resources to invest in the growth of the company. Ultimately, it can overwhelm you, lead to frustration and burnout. To reduce your financial stress, the main strategy is to start managing your finances at an early stage, seeking professional help when needed.

### **3.2. Conceptual basis of financial management of liquidity and solvency of enterprise**

The conceptual scheme defines aspects of the company's activities and uses three levels of integration:

- 1) The external level represents management in general: finance, production and human resources management, marketing, strategic planning.
- 2) The middle level is an operational process, such as: product/process, production planning and production control.
- 3) The middle/third level are: management of information resources and communications.

The central idea is that an attempt is being made to move away from the traditional view of liquidity and solvency towards full integration within the enterprise. The circle emphasizes the totality of integration. However, there is still room for improvement and development to meet current and future challenges, since integration will take place not only within one enterprise, but also between enterprises. Obviously, there are no external links between the business and its suppliers, subcontractors and/or customers. This circle also includes indicators of the effectiveness of the financial and economic activities of the enterprise.

Failure of any of the elements of the circle of performance indicators can threaten the natural growth and increase in profits, which should happen every time a company circumvents this circle. Thus, the goal of the enterprise should be to meet all the main criteria on which success depends (see Figure 3.3).

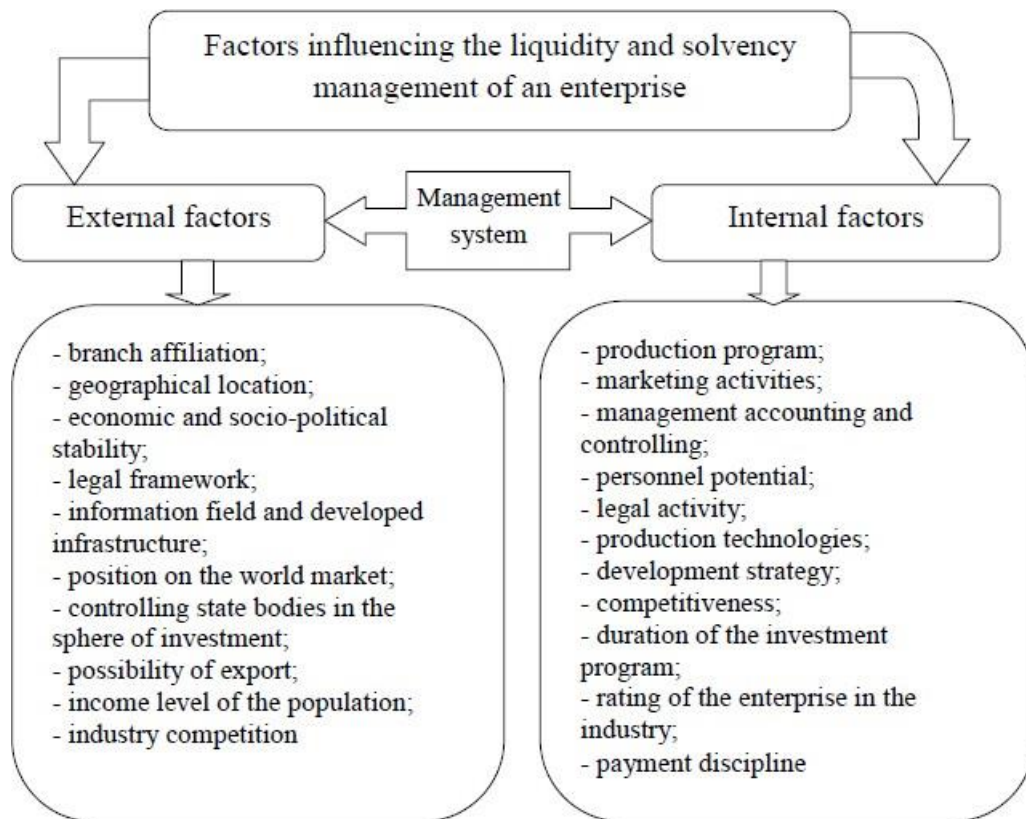


Figure 3.3 – Factors of influence on liquidity and solvency management of the enterprise

*Source: [41]*

There are a number of measurements of the financial solvency and liquidity of enterprises, which are used for frequent analysis of the efficiency of the enterprise and include the analysis of coefficients. From the point of view of coefficient analysis, two main groups of financial coefficients are described: those that relate to profitability, liquidity and solvency.

Return on equity (ROCE) and return on equity (ROSF) are two factors that reflect the profitability of a business. Liquidity ratios are ratios that reflect the potential

solvency of an enterprise in the short term, while the turnover ratio is an indicator that reflects the potential solvency of an enterprise in the long term.

Turnover or total sales are used to measure the gross revenue or sales volume of an enterprise for the year. Integrated indicators are a well-known system of multidimensional analysis that is used to assess the overall financial condition of an enterprise and the probability of insolvency.

Analysis of financial ratios is a systematic assessment of the coefficients of both internal and external financial statements in order to summarize key relationships and results for the evaluation of financial indicators. Coefficient analysis as a practical tool for monitoring and improving productivity is significantly expanded when:

- Relationships are analyzed on a regular and ongoing basis so that trends can be identified, trends identified and investigated;
- The coefficients prepared for an individual enterprise can be compared with other enterprises in the same industry. This process is greatly facilitated when the company has free access to comparative coefficients prepared in a standardized manner.

So profit is obviously the key outcome in an unstable environment. And profitability is the reason that most enterprises carry out financial and economic activities. Enterprises strive to increase profitability and reduce risks. Profitability coefficients measure revenue and help control it. The main relationships in this area are return on equity (ROCE) and capital turnover (ROSF). Of the two types of ROCE coefficients listed above, it is more appropriate to evaluate the efficiency coefficient in the formation of profitability. ROSF is more useful when assessing the ratio of net profit to equity [3].

The analysis of solvency (or potential insolvency) has some limitations. The analysis of coefficients is necessary on the basis of ordinary financial statements (balance sheets, operating reports, profit and loss statements) so that any prepared coefficients relate to past conditions, while solvency is applicable to current ones. Conditions may change dramatically compared to the last reporting date, and the company, which at that time was solvent, is experiencing difficulties, possibly due to

the withdrawal of the loan. Accordingly, any solvency coefficients should be treated with caution and adjustments should be made taking into account more up-to-date information.

It should be noted that liquidity ratios (or solvency ratios) measure the amount of cash available to cover both current and long-term expenses. These coefficients are especially important for business support. Non-payment of bills due to lack of cash is the fastest way to get out of business. This argument is supported by research, according to which liquidity refers to the ability of an enterprise to meet its short-term financial obligations as they are repaid.

Solvency coefficients can be grouped into two categories: those that relate to short-term factors, and those that are related to the long-term ability of the enterprise to fulfill all financial obligations, including those that are not currently payable. Some coefficients of short-term solvency, such as the ratio of current to fast, are considered important when assessing the financial stability of an enterprise, in particular for financial analysts, investors, bankers and creditors. Two groups of coefficients were recognized as valuable: those that relate to current assets and current liabilities, and those that indicate the rate at which short-term assets are converted into cash (see Figure 3.4).

Assessment of the effectiveness of solvency and liquidity management is carried out in accordance with the following system of criteria:

- the change in the most important indicators of financial and economic activity and the financial condition of the enterprise during the management period has been achieved;
- the rate of obtaining positive changes per unit of time, that is, an increase in generalized economic indicators obtained in one time interval (week, month, quarter);
- economic efficiency of obtaining a positive effect;
- sufficiency of changes to restore the viability of the enterprise [41].

Thus, the management of the solvency and liquidity of the enterprise is based on a thorough analysis of the financial and economic condition of the enterprise and the

development of measures to increase liquidity and solvency, which allows the enterprise to anticipate and avoid negative situations, as well as improve the efficiency of its activities due to reliable information obtained. The source of such information may be economic expertise as a resource for identifying economically justified causes of insolvency.

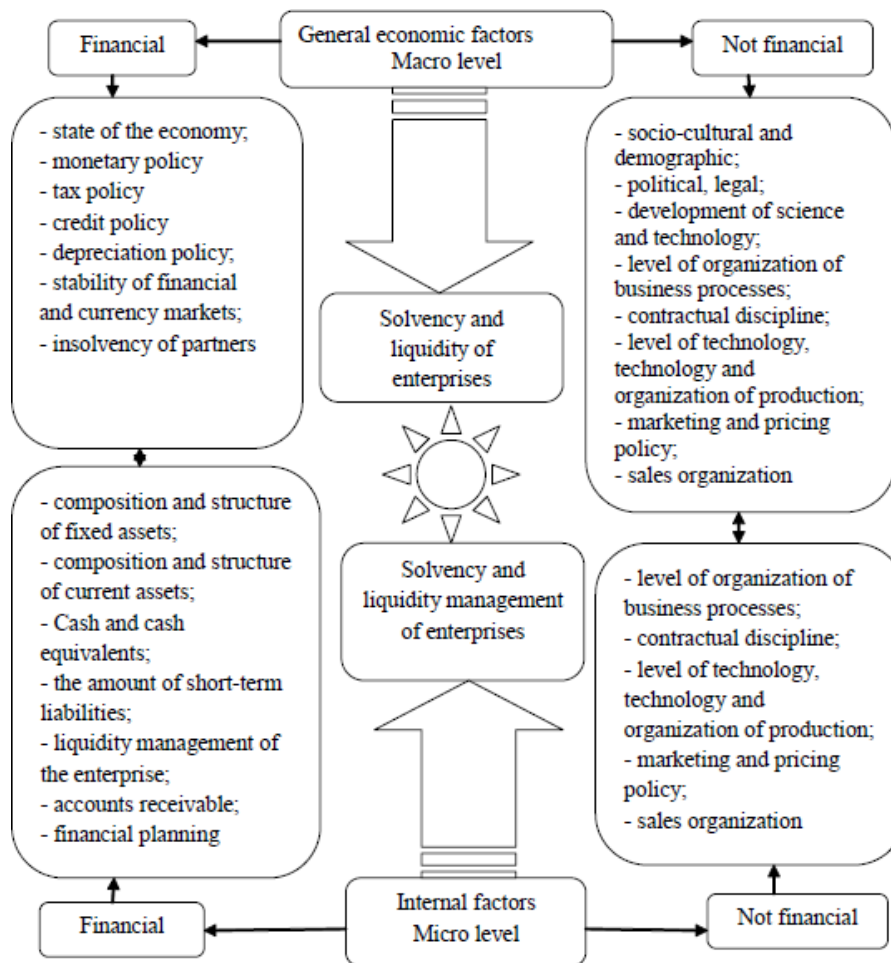


Figure 3.4 – Structural and logical scheme of factors influencing the management of solvency

Source: [41]

The role of the solvency and liquidity management of the enterprise in ensuring the effective development of the enterprise is, in particular, that it allows the implementation of:

- 1) drawing attention to strategically significant cost objects and calculating their cost in strategic planning and analysis;
- 2) assessment and control of management decisions affecting financial and economic activities;
- 3) information support for the analysis of the value chain, identifying opportunities for optimizing the company's activities;
- 4) formation of cost targets and assessment of their achievement;
- 5) identification of cost carriers and regulation of cost factors;
- 6) assessment of the efficiency of business processes in terms of resource intensity and value creation, as well as value for the consumer;
- 7) comparison of costs and benefits (profit, consumer value, competitive advantage, etc.);
- 8) calculation of the cost of the product at all stages of the life cycle;
- 9) evaluation of the effectiveness of individual segments, etc [7].

It should be borne in mind that solvency and liquidity management is carried out both at a purely functional level, within the framework of specialized management services, and at the level of specific places of their occurrence. In accordance with the vision of the goals of the enterprise, solvency and liquidity management determines the tasks that are solved within the framework of the enterprise management system as a whole and its individual functions, ensures their compliance with the goals of the enterprise and mutual consistency.

### **3.3. Key aspects of the introduction of financial innovations in the enterprise**

The introduction of various financial innovations affects operational activities, professional relationships and the work of personnel. In this regard, the main types of financial innovations are considered below in the context of changes in work, labor

force and workplace. Recommendations for the effective implementation of the described innovations are also proposed (see Figure 3.1).

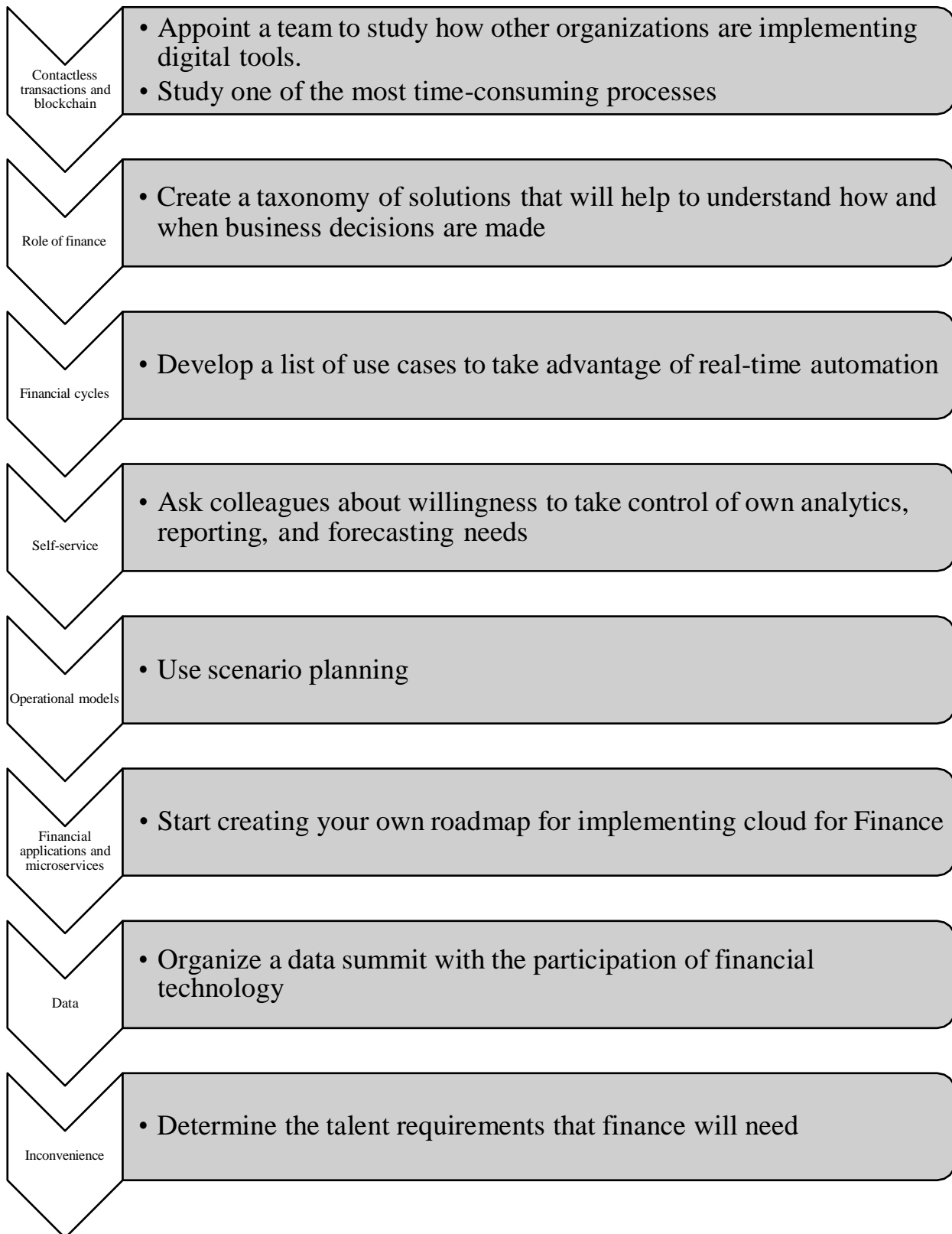


Figure 3.5 – Implementation of the financial innovations

*Source: built by the author*

1) Transactions will become contactless as automation and blockchain penetrate deeper into financial transactions [13].

Operational changes:

Traditional processes — and the disparate structures around them — will disappear as the focus of funding shifts to system design, configuration, and maintenance. Finance will succeed in transforming business practices and management models into automated processes. Indicators and real-time monitoring will be indispensable.

Personnel changes:

As the workforce is replenished with robots and cognitive agents, finance will need people who are able to create and connect systems that interact with other systems. Some of them will be traditional employees, while others may be contractors or freelancers.

In any case, preference will be given to talents versed in technology and business. There are already not enough such specialists. The transition to a hybrid workforce, including new combinations of full-time and off-balance sheet workers, will grow.

Workplace changes:

The financial workforce will change; its influence on business will expand. Leading organizations will introduce financial management centers, where small groups of professionals will be able to monitor the entire range of processes using intelligent dashboards. Chatbots and voice integration will become mainstream, providing stakeholders with the benefits of smooth, intuitive interaction with technology and data. One of the results will be a new level of flexibility, especially with the support of mergers and acquisitions and asset sales.

Practical recommendations:

- Appoint a team to study how other financial organizations are implementing digital tools and automating processes.
- To study one of the most time-consuming processes and imagine how to improve it with the help of automation and cognitive tools. How will such changes

affect the organization and staffing needs?

2) The role of finance.

Since operations are largely automated, finance doubles the cost of business intelligence and maintenance. Success is not guaranteed. The skills needed by finance professionals are likely to change dramatically as new combinations of technology and workforce enter the workplace [15].

Operational changes:

The business partnership will move from budgeting and reporting to scenario planning, advanced forecasting and better visualization.

Teams of business partners will come together to focus on the most complex commercial solutions, moving around the business as needed. The information needed for decision-making will appear «just in time», fully integrated into the overall management processes. The usual predictions will be processed by algorithms that are constantly evaluated by small groups of resources, including data scientists, storytellers and cognitive psychologists. Finance will have a greater impact on how decisions are made throughout the enterprise.

Personnel changes:

Computers will process routine requests from business leaders, which will give financiers the opportunity to act more proactively. People will spend less time preparing data for analysis and more time asking «What does this tell me about business?» and «How can a business address gaps in performance expectations?» The answers to these questions require an understanding of financing and capital, as well as the ability to make recommendations on the allocation of resources. This is a big shift compared to how many in the field of business finance work today.

Workplace changes:

Flexibility will become a valuable quality, as financial organizations have to provide differentiated levels of service to different business units. For highly efficient divisions, a financial business partner can find a joint job and join the company's management team. Ineffective performers can also receive practical support, but in

order to correct the situation. The combination of people and technology will become the link that connects the teams.

Practical recommendations:

- Identify your best business partners and clone them. Ask them to help train less experienced people and give them as examples of what you are looking for.
- Imagine the role of a CFO with decision-making rights. Create a taxonomy of solutions that will help your organization understand how and when business decisions are made.

### 3) Financial cycles.

Financing is carried out in real time. Periodic reporting will no longer define operations and decisions — if it ever was [18].

Operational changes:

The expectations of stakeholders regarding information and insights will increase dramatically. Constant tracking of sales, cash flow, inventory, and more will become the norm. The quality of information will be monitored by people controlling the machines that do this work.

Personnel changes:

Finance will place big bets on data processing and design specialists who can develop automated reports, forecasting and end-to-end processes. The combination of talents will challenge the leaders of the old school. These new employees will work side by side with traditional business analysts, providing financial clients with real-time information.

Augmented with artificial intelligence, they will provide deep learning and pattern recognition that expand the capabilities of only humans.

Workplace changes:

Financial organizations will become more compact and distributed, and flexible teams will enjoy the benefits of instant and easy access to data, regardless of where and how it is generated. Batch processing will become a term that evokes nostalgia for a bygone era. The systems will transmit streaming data without delay. Seamless, contactless, integrated information platforms make all this possible.

Practical recommendations:

- Rethink how and whether these decisions can be made in a real-time operating environment.

- Develop a list of use cases to take advantage of real-time automation.

4) Self-service.

Operational changes:

Accountants using spreadsheets will be replaced by technology that does 90% of the work without human intervention. Working with higher returns requires cross-functional collaboration between businessmen, technology teams and financial strategists.

Personnel changes:

It will be impossible to buy all the talents needed to answer all the routine questions that arise from business leaders. Companies that want to thrive in a brave new world will develop the skills needed for a self-service culture. Make sure that you attract and develop people who understand the importance of quality customer service.

Workplace changes:

Security is always important, but in the world of self-service it takes on a new urgency. Data warehouses that are funded abroad will be available to completely new groups of business users. Chatbots will become the main mechanism by which people interact with technology and data [19].

Practical recommendations:

- Observe how you use self-service tools in your personal life as a consumer. What would it look like if you could implement these tools into your professional life?

- Ask your business colleagues about their willingness to take control of their own analytics, reporting, and forecasting needs.

5) Operational models.

New service delivery models will emerge as robots and algorithms join a more diverse financial workforce. Companies will appreciate the benefits of automation compared to onshore and offshore operations [22].

### Operational changes:

People will do more human work, including actions based on exceptions and insights - work that is exploratory in nature — as organizations realize the potential of automation and blockchain. Gone are the days when special values were copied and pasted from a contract, invoice or other document into an ERP system. Leading financial organizations are developing automation tools to do this work.

### Personnel changes:

Financial transactions will depend on the growing cooperation between finance, information technology and business. Many organizations will turn to innovation centers to promote mutual understanding and communication between disciplines. The teams will include experts in the field of robotics, blockchain and cognitive technologies, with a variety of talent models that use the portfolio of freelancers, giants and crowdsourcers. They will move from project to project, implementing capabilities throughout the enterprise, providing greater integration and eliminating fragmentation. Those who are open to learning and development will see the most opportunities for professional and personal growth.

### Workplace changes:

Members of cross-functional teams will grow by learning from each other. New models of leadership and team building, focused on an intensive level of cooperation, will develop. They will solve problems that are too complex to be solved by any person or group with the same skill set. The finance unit will have to ensure and facilitate collaboration between a wide range of interdisciplinary teams. Easy-to-use collaboration technology is crucial.

### Practical recommendations:

- Meet with your outsourcing service providers. Ask them to share their strategies in the field of automation, cognitive technologies and blockchain for the next seven years. Determine how the performance improvements will be distributed. Insist on being included in the game with the advantage of automation.
- Use scenario planning to figure out how technology will affect the choice of what work should be done, where and by whom.

6) Financial applications and microservices for enterprise resource planning challenge traditional ERP [27].

Operational changes:

As more and more companies move to a cloud-based ERP system, they prefer to become more standardized — their systems work like smartphones that download updates overnight. Instead of creating customized systems, companies will buy what they need from the growing market of applications and microservices. The work of the finance department will be aimed at understanding how these new services interact with each other in order to optimize processes and provide analytical information.

Personnel changes:

The days of «human middleware» are coming to an end. Technologies are getting smarter — they are integrated into ERP platforms without human intervention. Instead of «being an app,» your employees will focus on «using the app» to provide business leaders with the information they need to make smarter and faster decisions.

Workplace changes:

Companies that have invested heavily in user applications will face an increasingly high cost of complexity. Complexity not only necessitates continuous training and development, but also requires specialized talents.

Practical recommendations:

- Due to the recent transition to cloud technologies, ERP system vendors are constantly adding new features and services to their product portfolios. Ask your IT team to give a briefing on what is already possible with your ERP system provider, as well as what is expected in the near future.

- If you haven't done this yet, start creating your own roadmap for implementing cloud for Finance.

7) Data.

The proliferation of APIs will lead to data standardization, but this will not be enough. It will still be difficult for companies to clean up their data [29].

Operational changes:

Data management is a bit like flossing. We know it's important, but we're not doing it enough. This helps explain why data quality is an ongoing problem for financial institutions. However, over the next few years, it would be wise to add the position of Data Processing director to your job description. The work itself is in the process of completion, but you should know that it is being carried out.

Personnel changes:

Every financial institution needs at least one data processing specialist, a person with influence to continuously improve data. Start by building resilient protocols, and then get down to the hard work of getting your data warehouse in order.

Workplace changes:

Data is a technology problem, but it's also a cultural problem. If you don't have leaders who value data quality, your organization will struggle with data-related issues that prevent people from doing their job in the best possible way. Instead of providing information and services to businesses, these organizations are constantly engaged in re-filling, distracted by issues of data integrity and completeness.

Practical recommendations:

- Organize a data summit with the participation of your financial technology team and those responsible for managing the core data. Ask to analyze the quality of the data needed for critical business analysis.

- Identify areas where there is an urgent need for improvement. Maybe you don't really care right now, but when you eventually do care.

8) The workforce and workplaces of employees will perform new tasks in a new way, some of which will cause financial directors inconvenience [35].

Operational changes:

Since rule-based work is largely automated, the focus is shifting to business analysis and exception-based investigations. More time will be spent on active support. Tools such as predictive modeling, self-service reports, and digital assistants empower employees to provide more guidance on strategic activities.

Personnel changes:

The workforce of the future will be replete with cross-functional teams and ongoing collaboration. Financial institutions will need their employees to be more flexible and open than ever. Data scientists will work side by side with business analysts to solve problems that no one person could solve alone.

Everyone will need more technical literacy, just as everyone will need customer service-oriented thinking.

Workplace changes:

As the financial sector develops towards expanding self-service capabilities, expect the emergence of digital assistants in the places where analysts used to work. This technology will provide both financial clients and employees of the financial sector with new tools that will facilitate the receipt of information and its comprehension. This shift will increase the importance of visualization, as well as tools for maintaining good connections between people. The future may require more physical proximity for teams, especially in the early stages of projects and work planning.

Practical recommendations:

- Determine the talent requirements that you think finance will need. Identify the people in the organization, as well as new employees, who are an example of the talent you aspire to.
- If you want people to become more compatible or technologically savvy, make sure you rate them by these parameters.
- Feel comfortable when it's inconvenient for you to lead people with a skill set that you don't fully understand.

### **Conclusions to Section 3**

Private firms are increasingly resorting to income-generating operations, as this can potentially provide greater growth and value at the expense of existing resources

and assets, in particular: (1) automation and optimization of the cycle from withdrawal of funds to cash receipt; (2) optimization of sales and resource allocation; (3) improving the local sales economy; (4) more effective management of the process of recruitment, expansion and retention of representatives; (5) improving pricing structure, management, accuracy; (6) consolidation, simplification and optimization of the commercial technology package; (7) valuation, management and monetization of commercial assets.

Adverse business transactions, especially those in which the other party reluctantly follows an agreed payment schedule, can be avoided through due diligence, clear contracts, advance payments, phased payments, late payment penalties, credit checks, open communication, requesting financial recommendations, personal guarantees, payment insurance, strict termination policy.

Coefficient analysis as a practical tool for monitoring and improving productivity is significantly expanded when the relationships are analyzed on a regular and ongoing basis, as well as if the coefficients prepared for an individual enterprise can be compared with other enterprises in the same industry.

The introduction of various financial innovations affects operational activities, professional relationships and the work of personnel. In this regard, such activities are proposed as: (1) studying the most time-consuming processes and improving them with automation and cognitive tools; (2) creating a taxonomy of solutions that will help understand how and when business decisions are made; (3) sharing strategies in the field of automation and cognitive technologies with outsourcing service providers and blockchain for the next seven years; (4) using scenario planning to figure out how the technology will affect the choice of what work should be done, where and by whom; (5) creating a roadmap for the implementation of cloud for Finance; (6) determining key requirements and parameters regarding financial personnel.

## CONCLUSIONS

Financial management involves the adoption of investment, financial decisions, decisions on the payment of dividends. The key functions of financial management are the assessment of capital needs, determination of the composition of capital, selection of sources of financing, investment of funds, cash management. The objects of financial activity within the enterprise are financial resources and their sources (equity, liabilities, income of future periods), as well as financial relations between subjects of economic relations. The basic concepts of the financial activity of the enterprise are the concept of the time value of money, the concept of accounting for the inflation factor, the concept of risk factor analysis.

Financial information should be important, complete, reliable, timely, understandable, relevant, comparable. The system of external indicators of financial management includes indicators characterizing the economic development of the country, the state of the financial market, the activities of counterparties, as well as regulatory indicators. The system of internal indicators of financial management includes the financial statements of the company, indicators of management accounting of the enterprise, indicators of regulation and planning.

To make investment decisions, investors are increasingly using the company's ESG rating, which characterizes environmental, social and management issues. One of the most noticeable consequences of the high efficiency of ESG are financial factors that are directly related to the desires of shareholders regarding value.

Green finance faces many risks such as physical risks, risks of transition to a low-carbon economy, risks of litigation from parties who have suffered losses due to the effects of climate change. Institutions that include «green» financing in their strategy get the opportunity for new research and analysis.

The introduction of digital financial innovations provides the following advantages:

- accelerates the evolution of the finance department from a transaction

operator to a strategic consultant;

- creates consolidated financial statements in real time, management reports and special analysis;
- encourages self-service based on user roles, which provides context and optimizes work while providing financial certainty and control through a unified security model;
- helps organizations apply a skills-based approach to optimize financial talent in new operating models;
- provides financial, workforce and talent management, collaborative planning and comprehensive reporting within a single cloud architecture;
- allows organizations to receive, transform and analyze data at any level of detail;
- integrates data inside and outside the organization, providing built-in reporting on any data dimension in real time;
- identifies errors in the context of business processes and supports risk mitigation efforts;
- provides continuous analytics on demand.

At the same time, financial services may have problems in adapting financial innovations due to the presence of a certain mentality and the need for a cultural shift, lack of communication, technical debt, limited access to capital.

Ways to counteract unfavorable business transactions when the counterparty reluctantly follows an agreed payment schedule are due diligence, clear contracts, advance payments, phased payment, late payment penalties, credit check, open communication, request for financial recommendations, personal guarantees, payment insurance, strict termination policies.

To monitor and increase productivity significantly, it is necessary to use coefficients in which the relationships are analyzed on a regular and ongoing basis, and also if the coefficients prepared for an individual enterprise can be compared with other enterprises in the same industry.

The key measures for the introduction of various financial innovations are: (1) the study of labor-intensive processes and their improvement with the help of automation and cognitive tools; (2) the creation of a taxonomy of business solutions; (3) the exchange with outsourcing service providers strategies in the field of automation, cognitive technologies and blockchain; (4) the use of scenario planning; (5) creating a roadmap for the implementation of cloud finance; (6) identification of key requirements and parameters regarding financial personnel.

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