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## FORMATION AND DEVELOPMENT OF THE CASH FLOW MANAGEMENT SYSTEM OF THE AGRICULTURAL ENTERPRISE IN CONDITIONS OF FINANCIAL INSTABILITY

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### ФОРМУВАННЯ ТА РОЗВИТОК СИСТЕМИ УПРАВЛІННЯ ГРОШОВИМИ ПОТОКАМИ СІЛЬСЬКОГОСПОДАРСЬКОГО ПІДПРИЄМСТВА В УМОВАХ ФІНАНСОВОЇ НЕСТАБІЛЬНОСТІ

This article examines the agricultural enterprise cash flow management system, the modeling of efficiency, and the diagnostics of the operations optimization and risk management system. The purpose of improving the cash flow management system was to provide effective solutions to business problems of Ukrainian agricultural enterprises. The cash flow management system is still in formation. In fact, there is no methodology for estimating the risks associated with cash flow management, and there is a need for scientific justification for optimizing cash flows. It is also necessary to improve the methodological support of the coordination mechanism of cash flows and use of investment and financial-credit resources of the agricultural enterprise. Seasonality of agricultural production, which influences the formation of cash flows of the economy, requires the creation of insurance stocks of funds and their equivalents, profitable their temporary investment in various financial instruments, the choice of the most effective ways of financing economic activity in the absence of own funds. A set of guidelines to increase the success rate of the agricultural enterprise cash flow management system is substantiated. A number of optimization strategies for increasing the profitability of an agricultural enterprise have been studied, and the economic benefits of them have been proposed. These scenarios were based on modeling performance in specific circumstances, increasing the reliability of the study. Finally, a number of risk management strategies aimed at improving the cash flow of an agricultural enterprise are reviewed. It is concluded that the use of advanced technical and economic tools can have a positive impact on how the manager manages the agricultural assets of the agricultural enterprise through the implementation of practically proven optimization and risk management strategy. The results showed that the key factors required for an agricultural enterprise to ensure a successful cash flow management system are: management and people; improving the structure of working capital; stakeholder support; a functioning market; marketing system; business development; the use of innovation and access to technology.

Стаття представляє вивчення системи управління грошовими потоками сільськогосподарського підприємства, моделювання ефективності та діагностики системи оптимізації операцій та управління ризиками. Мета удоскона-

лення системи управління грошовими потоками полягала в тому, щоб забезпечити ефективні рішення бізнес-проблем сільськогосподарських підприємств України. Система управління грошовими потоками знаходиться ще у стані формування. Так, фактично відсутня методика проведення оцінки ризиків, пов'язаних з управлінням грошовими потоками, потребує наукового обґрунтування оптимізації грошових потоків. Необхідним також є вдосконалення методичного забезпечення механізму координації грошових потоків і використання інвестиційних та фінансово-кредитних ресурсів сільськогосподарського підприємства. Сезонність сільськогосподарського виробництва, що впливає на формування грошових потоків господарства, вимагає створення у господарстві страхових запасів коштів і їхніх еквівалентів, вигідного їхнього тимчасового вкладення в різні фінансові інструменти, вибору найбільш ефективних способів фінансування господарської діяльності у разі нестачі власних коштів. Обґрунтовано набір керівних принципів, спрямованих на підвищення рівня успішності діагностики системи управління грошовими потоками сільськогосподарського підприємства. Вивчено низку стратегій оптимізації для підвищення рентабельності сільськогосподарського підприємства, запропоновано виділити економічну вигоду від них. Ці сценарії базувалися на моделюванні продуктивності діяльності в конкретних умовах, збільшуючи надійність дослідження. Нарешті, розглянуто ряд стратегій управління ризиками, спрямованих на удосконалення управління грошовими потоками сільськогосподарського підприємства. Зроблено висновок, що використання передових техніко-економічних інструментів може позитивно впливати на те, як менеджер управляє грошовими активами сільськогосподарського підприємства через впровадження практично перевіреної оптимізації та стратегії управління ризиками. Отримані результати показали, що ключові фактори необхідні сільськогосподарському підприємству для забезпечення успішної системи управління грошовими потоками: керівництво та люди; поліпшення структури оборотних коштів; підтримка зацікавлених сторін; функціонуючий ринок; система маркетингу; розвиток бізнесу; використання інновацій та доступ до технологій.

*Key words: cash, liquidity, financial and economic activity, financing, factors.*

*Ключові слова: грошові кошти, ліквідність, фінансово-господарська діяльність, фінансування, фактори.*

## INTRODUCTION

The urgency of the topic is determined by the urgent need to optimize the cash flows of agricultural enterprises in modern conditions. The consequence of inefficient financial and economic activity was also the destruction of financial and credit relations in agriculture, which in turn caused a decrease in the effectiveness of cash flow management and is now one of the reasons for the financial instability of agricultural enterprises.

Problems of improving cash flow management in agriculture have always been the focus of scholars such as: V.M. Alekseychuk, V.Ya. Ambrosov, M.Ya. Demyanenko, M.I. Lukinov, P.Y. Malik, P.T. Sabluk and others.

The cash flow management system is still in formation. In fact, there is no methodology for estimating the risks associated with cash flow management, and there is a need for scientific justification for optimizing cash flows. It is also necessary to improve the methodological support of the mechanism of coordination of cash flows and use of investment and financial-credit resources of the agricultural enterprise. There are no specialized agrarian and credit institutions; they do not reflect their peculiarities in the functioning of the newly established agrarian credit institutions in the Ukrainian legislation.

Solving these problems will help improve the financing and management of cash flow in agribusiness enterprises. The urgency of the problem, its practical importance and lack of

theoretical elaboration led to the choice of the article topic.

The aim is to investigate cash flow management issues and develop proposals for improving cash flow management at agricultural enterprises.

## PRESENTING MAIN MATERIAL

Seasonality of agricultural production, which influences the formation of cash flows of the economy, requires the creation of insurance stocks of funds and their equivalents, profitable their temporary investment in various financial instruments, the choice of the most effective ways of financing economic activity in the absence of own funds. In order to better understand the nature of cash flows in agricultural enterprises, as well as to choose appropriate methods of managing them, a thorough study of the cash flow of an agricultural enterprise is required. In Fig. 1 it is shown the dynamics of cash from agricultural enterprises of Ukraine.

Effective cash flow management reduces the enterprise's borrowing needs. The financial stability of an enterprise is largely determined by the extent to which different types of cash flows are synchronized with each other in terms of volume and time. The high level of such synchronization ensures the financial equilibrium of an agricultural enterprise in the course of its strategic development. This is facilitated by the reduction in the duration of production and financial cycles, which is achieved in the process

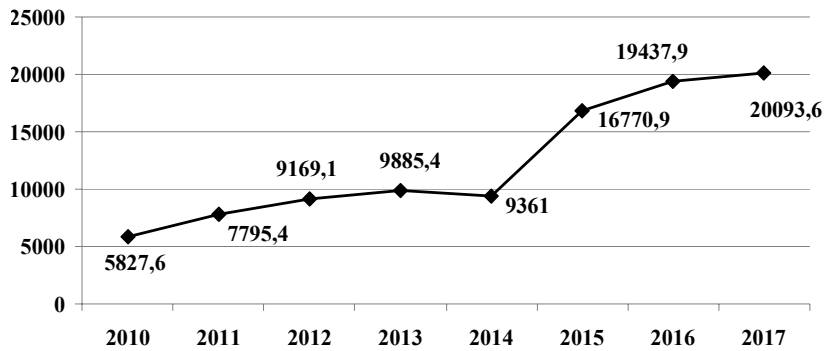


Fig. 1. Dynamics of cash of agricultural enterprises of Ukraine, mln. UAH

of effective cash flow management, as well as reducing the need for capital that serves the economic activity of the enterprise. By accelerating the flow of capital through efficient cash flow management, the company provides growth in the amount of time generated profit. Effective use of temporary free balances of current assets allows the company to make additional profit.

In Fig. 2 it is considered the share of cash in the general structure of current assets of agricultural enterprises.

The high level of synchronization in terms of volume and time of receipts and disbursements allows to reduce the real need of the enterprise for current and insurance balances of funds servicing the operating process, as well as the reserve of investment resources formed in the process of making real investments. Thus, transparent

accounting of cash flows, effective management of cash flows of an agricultural enterprise contributes to the formation of additional resources for making financial investments, which is one of the sources of profit.

It is proposed to organize a balanced system of accounting and control of cash flows as a tool for forming accounting and control support for strategic management decisions. In this aspect, cash flows are not only a resource specific to an agricultural enterprise and are a universal indicator that allows it to be characterized in accordance with its strategic objectives. At all stages of the reproduction process of production, control ensures the accuracy of information for the purpose of decision-making, organization and methodology of structural economic formation. Control is a type of enterprise management

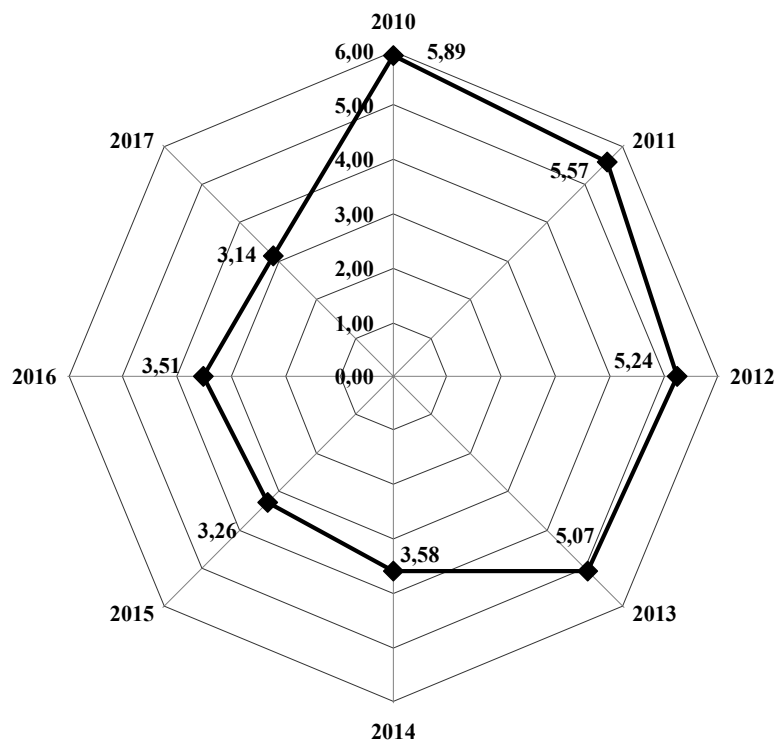
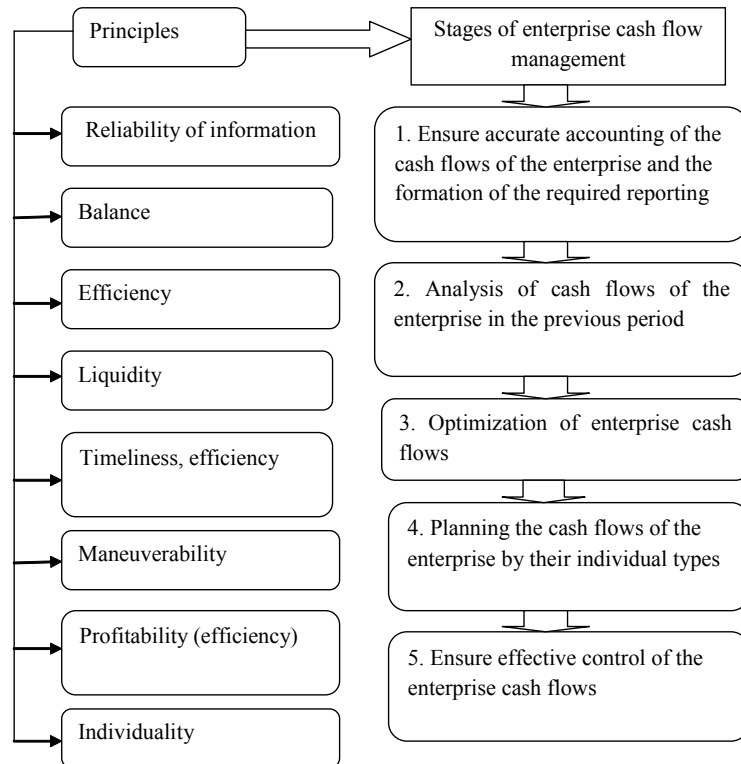


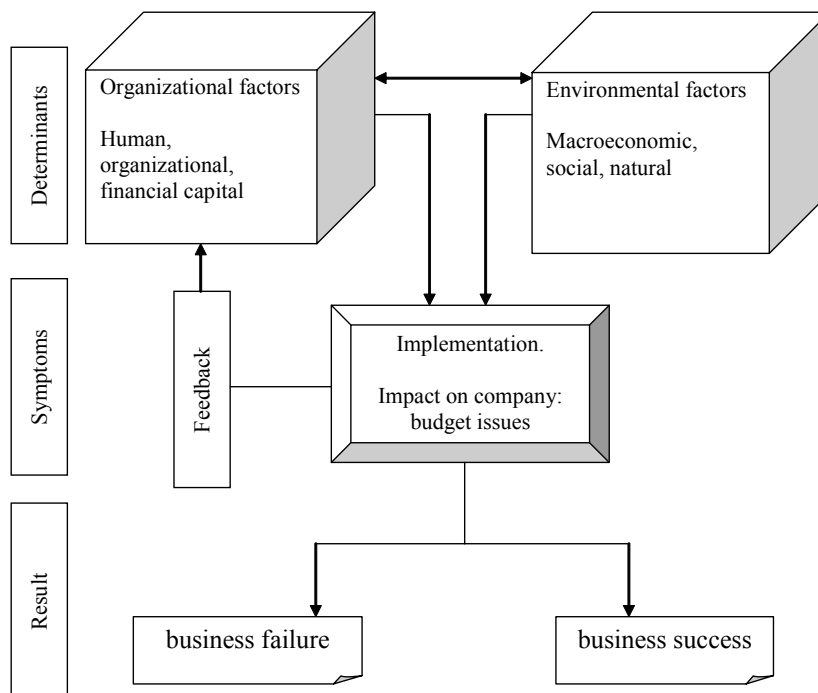
Fig. 2. Share of cash in the total structure of current assets of agricultural enterprises, %



**Fig. 3. Principles and stages of the cash flow management system of an agricultural enterprise**

activity that allows for timely identification of problems, development and implementation of measures aimed at adjusting the course and content of work in the organization until such time as the crisis signs. The purpose of control is to facilitate

the convergence of actual and desired results of operations, that is, to ensure the achievement of the objectives of the enterprise. One of the most important tasks of control of cash flows at agricultural enterprises is to check compliance



**Fig. 4. The input and output frameworks (I/O model) for agricultural enterprise development / survival in Ukraine**

**Table 1. Determinants of agricultural enterprise performance decline in order of importance**

Determinants	
ORGANIZATIONAL FACTORS	ENVIRONMENTAL FACTORS
Human, organizational and financial capital	Macroeconomic, social and natural factors
1. Incompetence / management experience	1. The weakness of the industry a). Poor growth prospects b). Shrinkage of agricultural demand
2. Insufficient amount of capital / Shortage of financial resources	2. Catastrophes
3. Lack of business knowledge	3. High interest rate
4. Fraud	4. Economic fluctuations
5. Lack of organizational knowledge	5. Sudden death of the manager or key employees of the enterprise
6. Ineffective client / government relations	6. Changes in policy
7. Weak technical and technological capabilities	7. Changes in legislation
8. Weak investment decisions	8. Social class
9. Wrong level of diversification	
10. Family problems of employees	
11. Poor project cost estimate	
12. Inefficient financial management	
13. Lack of experience in linear control	
14. Lack of commitment	
15. Lack of necessary professional skills	
16. Poor analysis of the corporate value chain	
17. Weak strategic planning	
18. Poor human resources management	
19. Poor quality management and control	
20. Inefficient organization of resources	
21. Weak project risk management and claims management	

with the legislation of Ukraine and the orders, instructions and other local regulations issued by the management of the enterprise.

In the proposed input and output model there are presented organizational and environmental factors as determinants of business failure or success. These determinants are further classified under the categories "Human, organizational and financial capital" and "Macroeconomic, social and natural factors".

Based on an extensive literature review, a list of 52 factors has been compiled as an exhaustive list of factors that cause business failure in agricultural enterprises. The categories are: budgetary issues covering aspects of agricultural enterprise financial management; human and organizational capital issues that cover some aspects of the agricultural enterprise's tangible and intangible resources; issues of adaptation to market conditions, sales, competitiveness, diversification and expansion; business and macroeconomic issues covering industry and national economy issues.

It is added a category that fits the social causes of business failure. After the factors were outlined and classified, the I/O model was used to identify the causal effects.

In terms of theoretical systems, the input and output factors of an agricultural enterprise are constantly being transformed. This model shows that organizational factors as well as external factors are the main determinants of business failure in agriculture, which then affects the effectiveness of the activity. You can identify 33 determinants, mostly related to the probability of failures that fall under the "value chain", "resources", "decisions" and "factors", which are the same as organizational and external factors. The effects of these determinants of the company's activity will then be symptoms. These symptoms may indicate stagnation of growth (survival) or failure (results). For example, lack of business knowledge and inadequate management experience can increase operational costs, create conflicts within the organization, create poor company image for clients, which will damage the competitiveness of the company and, consequently, lead to inadequate sales of goods and services, which in turn may influence the profit and cash flows of an agricultural enterprise. Having symptoms does not automatically mean business failure, if the profitability of the company is greater than the minimum acceptable obstacle rate. As a consequence, the company can still pay



**Table 2. Symptoms / Indicators of business failure in order of importance**

SYMPTOMS	
Budget issues	Business issues and market adaptation
1. Insufficient profit	1. Insufficient sales
2. High operating costs	2. Bad company image
3. Requirements for debt from the client	3. Business conflicts
4. Burdensome institutional debt	4. Not competitive

creditors and stakeholders, but cannot cut costs. As a matter of fact, the I/O model clearly indicates the area managers needing improvement.

This model can be called feedback cycle. Taking a turn to improve company performance can save the company. "Bad company image" can be considered as an intangible resource and as a defining one. However, this study claims that a bad company image is an indicator of performance, a symptom of failure. A "bad company image" can be the result of insufficient capital for the company to advertise itself or because of its poor technical and technological capacity, and therefore cannot maintain the required level of performance in the market in which it operates. Or, it may be the result of poor relationships with clients, supervisors, and the government based on managerial incompetence. It is the result of, or a combination of, any of the foregoing. Therefore, these were placed below symptoms or performance measures.

Table 1 shows the determinants of business disruption in agricultural enterprises. The factors were grouped and presented using input and output models for human, organizational and financial capital, macroeconomic, social and natural factors as input. As well as budgetary, business and market adaptation issues as a result.

Table 1 shows that "Human, organizational and financial capital" and "Macroeconomic, social and natural factors" are the determinants of business failure. These are factors unique to the enterprise. They relate to the resources of the enterprise (tangible and intangible) and to the management of them, that is, every decision made to allocate these resources.

Factors related to intangible resources include lack of organizational knowledge and experience, poor customer / government relations, and poor leadership with poor technical and technological capacity. And insufficient capital and scarcity of financial resources are associated with material resources. From an organizational management standpoint, they can be divided into corporate and project management. At the corporate level, the determinants responsible for business failure are more related to management incompetence; fraud, poor financial management, poor value chain

analysis, poor human resource management, poor communication, poor strategic planning, poor environmental scanning, lack of investment, poor diversification, poor restructuring / reorganization. At the project level, the determinants of business failure are: incorrect project selection and poor project cost estimation, lack of line management experience, poor planning and analysis, poor resource management, poor monitoring and control, poor project risk management, poor claims management, poor selection, and management of suppliers and subcontractors, and poor quality of management and control.

Macroeconomic trends affect the agricultural sector. Poor growth prospects can result from over-competition. This can lead to lower prices in order to secure contracts or tenders for contracts that go beyond the specialty of the company. Some external factors are purely incidental and may not result in company failure if they occur. However, in the case of small and medium-sized firms, they can be decisive.

In the Input and Output model, the symptoms are presented in Table 2. These factors indicate the "effect" of the determinants in Table 1. They are performance indicators also known as the success or failure symptoms of the company. They are classified under "Budgetary Issues" and "Business and Market Adaptation Issues".

The most important symptom of budgetary issues is "Insufficient Profit". When agriculture business fails, the reason for this is almost always poor cash flow. He points out that an agricultural enterprise is experiencing poor cash flow when it: insufficiently charges for its work, does not use resources efficiently, does not use or misuses legal contracts, allocates too many employees to perform some work, accepts inappropriate payment schedules contracts and / or does not make profitable sales. Budgetary issues may be the result of any combination of the determinants of Table 1.

For example, poor investment decisions or a wrong project choice can lead to high operating costs, which can lead to increased borrowing (debt) and, in turn, lead to inefficient operations (insufficient profit). Ineffective projects can also lead to problems in obtaining funds, and this will

**Table 3. Ranking the success factors of an agricultural enterprise**

Ranking factors		
1 Strategic organization, planning and goal setting	20 Security	39 Qualified technical staff
2 Honesty and reliability	21 Risk management	40 Problem solving / ingenuity
3 Capitalization and financial management	22 Achieving above average income growth	41 New technologies
4 Good profit margins	23 Long-term partnership with competitors	42 Political Relations / Network
5 Company Image / Reputation	24 Level of competition	43 General communication skills
6 Competitive Prices / Product Availability	25 Effective management	44 Distribution to New Countries
7 Company experience in the market	26 Using high quality materials	45 Identifying community needs
8 Knowledge / experience of leadership in agriculture	27 Good suppliers / product availability	46 Diversification / product diversity
9 Skilled workers	28 Effective Sales and Marketing	47 Low interest rates
10 Optimal organizational culture	29 Learning and Development	48 Professionalism
11 Customer Relationships	30 Availability / Location	49 Company image / reputation
12 Quality of production	31 Low overhead	50 Level of education
13 Customer Service	32 Timely payment of bills	51 Other sources of income
14 Customer Satisfaction	33 Budgeting and Cash Flow	52 Good weather
15 Good Subcontractor Relationships	34 Fair pricing / value	53 Email Marketing
16 Controlling costs and cash flows	35 Flexibility	53 Cost control
17 Innovative products	36 Good Advertising	54 Quality control
18 Economic conditions of the country	37 Ability to obtain financing	55 Effective Records Management
19 Teamwork	38 Qualified consultants	56 Product Design Orientation

certainly affect the growth and profit of the company. In addition, determinants of type; economic downturn, insufficient capital, weakness in the industry (reduction in demand) plus the competitive nature of the industry can affect the productivity and therefore the profitability of the agricultural enterprise.

As with budgetary issues, business and market adaptation are also a direct effect of the determining factors. Table 3 identifies the following factors for business and market adaptability; Insufficient Sales, Bad Company Image, Business Conflicts, and Not Competitive Determinants such as: management incompetence and / or economic fluctuations can lead to inadequate sales, which in turn will result in company profits.

It is argued that in times of rapid change, dynamic changes in productivity, technology, brand, image and reputation of the company need to be maintained to maintain competitive advantage. Due to the fragmentation and competitive nature of the agricultural sector, there are conflicts. Business conflicts can be the result of poor investment decisions, low cost of project appraisal, poor leadership, lack of work experience, etc. Conflicts have the potential to destroy both qualitative and technical indicators and this can affect profits. As soon as the company's activities are hampered by conflict, prompt dispute resolution is recommended.

The feedback loop in the input and output model informs the farm management about the productivity and efficiency of the activity so that they can take action. Contractors need to act quickly when the cash flow of an agricultural enterprise begins to decline. Cash flow deficits, declining profits, falling asset values, excessive borrowing, or even tensions, are obvious signs of a

company's financial difficulties, but are often not noticed by management. When a company recognizes its situation, then the first thing to do is to try to bring it back. If this is not possible, the next step will be to try to save the project either by removing a meager return or by limiting and managing losses and losses. During the turn, management could decide to adopt a number of strategies. These include: negotiating with existing creditors, attracting new equity, disposing of assets, introducing new management and informal agreement with creditors. If not, or a combination of these strategies is effective, management should begin to file for bankruptcy. However, no contractor wants to reach the point of insolvency. It is always hoped that the recovery has been successful. From the symptoms

Input and output models, managers must return to the board, evaluate and quickly determine the determinants of symptom and return effectiveness to ensure success.

Now it is necessary to discuss the downside of business failure, that is, business success and what can make an agricultural business successful. Further questions may be: what is the plan for success and how can it be supported? The answer to the second question is critical and should not be ignored. The reason is that companies that are now unprofitable, were once successful companies. But something went wrong. Effective financial and economic activities include such project objectives as; planning and low overhead that go hand in hand with organizational goals to achieve overall corporate success.

Survival and resilience implies the formation of a sustainable heritage and leadership of generations. It has the element of branding, reputation, innovation, value creation and continuity

of leadership. The profit and wealth factor emphasizes the need to maximize profits and create wealth for the owner and his employees. This is because the agricultural industry is heavily dependent on cash flow and without that the business is failing.

Success factors in an agricultural enterprise. Table 2 summarizes the factors that combine to ensure corporate success in agricultural enterprises. A list of 42 factors has been compiled into business management factors, financial condition factors, owner and manager characteristics, quality of work, sales and marketing, market choice and technology. Contractors classify such financial factors as: availability of capital, contractual rates and financial strength of the company as the most important factors for the success of agricultural enterprises.

### CONCLUSIONS AND PROSPECTS FOR FURTHER RESEARCH

The identification of cash flows contributes to the management decisions of business entities regarding the degree of operational entrepreneurial risk associated with their implementation, which should be minimal. At the same time, the widespread business environment is focusing on the problem of scarcity of funds, as the main dominant for holding back the economic development of agricultural enterprises. In today's volatile market conditions, those flows that seemed insignificant can now be decisive in the process of shaping the financial performance of an agricultural enterprise. It should be noted that at the legislative level, the distribution of cash flows by type of activity (operating, investment and financial) is the only classification recognized by the accounting system. In practice, however, current activity is often supported by financial and investment activities that ensure the survival of many businesses in an unstable economic environment (no funds are allocated for capital investments, innovative programs and dividend payments to shareholders). Therefore, the development of any other activity should not contradict the development of the operating activity, but only support it. Accordingly, cash flows from investment, financial and other activities should not impair the formation of cash flows from operating activities.

The system-forming mechanism of each of the constituent elements of an enterprise's financial management, and therefore of the financial management model as a whole, is cash flows as a financial expression of an entity's entrepreneurial activity in a market economy. In this case, cash

flows are considered as the basis of the entity's self-financing — covering the enterprise's capital needs at the expense of internal sources. Therefore, cash flows can be defined as the material basis of financial management, and the effectiveness and realism of an entity's financial management model will directly depend on the performance of the entity's cash flow management model.

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