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Transformation of financial management of agricultural enterprises in conditions of contemporary challenges

Scientific problem. The activity of agricultural enterprises depends primarily on their finances, making it necessary to address the problems of the financial management of an enterprise. Provision of a sustainable enterprise development, stability of results of its operations, reaching the goals that interest the owners and society as a whole are impossible without the development and conduct of an independent financial strategy of the entity which in the modern economy depends on the availability of an effective financial management system. The growth of pace of business is increasing the dependence of an enterprise on external sources of financing and a possible loss of autonomy in decision-making. Even with the high profit of business, an insufficient attention to the problems of its financial management of the enterprise leads to negative external effects or a takeover. Therefore, the effective activities of an enterprise depend on the quality of management of its finances. This necessitates the development and improvement of applied aspects of financial management. An important area of improvement of financial management while solving practical problems is the implementation of business models.

Analysis of recent researches and publications. The problems of financial management of agricultural enterprises and the possibility of introducing business modeling of financial processes were studied by A.Arapetian [2], O. Hutz [4], V. Markin [5], A. Poddyerohin [6], P. Stetsiuk [8] and others. However, despite the thorough investigation, some questions remain insufficiently illuminated like specifying directions of improvement of financial management of agricultural enterprises through business modeling.

The objective of the article is an analysis of the business process in the management system of financial management and development of proposals for improving the formation of the business model of domestic agricultural enterprises.

Statement of the main results of the study. Financial management widely operates with concepts of "business modeling", as one of the key elements of strategic planning is the business model. Business modeling allows financial managers to not only justify the need for the development of a project, but to have the possibility of its realization in contemporary challenges.

Business modeling organizes and coordinates the financial management system of the company, ensures the development program of

actions from thier start to finish. No matter what business processes are implemented, business modeling is a systematic methodology for the success of any type of business operations while maintaining an acceptable level of financial risk.

The main causes of the need for developing a business model for effective financial management of an agricultural enterprise should include [11]:

- creating conditions in which ideas are communicated to financial managers and others with the provision of an effective attraction of financial resources;
- bringing the financial management of an enterprise to success in business resulting from the use of methodologies of business modeling and monitoring;
- providing objective evaluation of the business, taking into account the medium and long term goals of financial management.

For the purpose of an effective business management, a business model is designed, which is one of the main tools of financial management. In terms of contemporary challenges an enterprise must be able to quickly and adequately respond to the changes occurring in the external and internal environment.

The financial model in business modeling is an exact description of an enterprise in terms of source and structure formation of revenues and expenses with a specific allocation of responsibilities [2]. Before proceeding to the collection, processing and evaluation of information management, it is important to clearly define which units will provide the necessary data. The financial structure of an enterprise is creared with such a purpose, which is a set of functional units connected with the only business process for the purpose of financial management, accounting and reporting - centers of financial responsibility [3].

We can distinguish the following variants of application of a business model in financial management for agricultural enterprises [9]:

- evaluation and analysis of business performance compared with other similar enterprises;
- assessment of potential and investment attractiveness of business of an enterprise in future;
- optimization of business enterprises in terms of strategy and maximization as well as retaining the value that an enterprise creates for customers and other interested persons in its business.

Consequently, business modeling helps financial management solve a number of problems [7, 10]:

- evaluation of the viability and sustainability of the enterprise, reducing the risk of business;
- specification of development prospects of an enterprise in the form of quantitative and qualitative indicators;
- provision of conditions for attracting potential investors;
- determination of the specific direction of an enterprise activity, target markets and places on these markets;
- the formulation of long-term and short-term goals of an enterprise, strategy and tactics to achieve them;
- the assessment of the costs of an enterprise;
- the assessment of an enterprise staff appropriateness and motivation conditions of their work as to the requirements to achieve the goals;
- determination of marketing activities of the enterprise such as market research, organization of advertising, sales promotion, pricing, distribution channels;
- achievement of profit maximization;
- evaluation of material and financial situation of an enterprise.

Current realities show that despite the attractiveness and perspectives of the field agricultural enterprises have to constantly solve a number of challenges that affect the level of efficiency of their financial activities. The decision in this situation is the use of modern technologies of financial management, especially information ones.

Business modeling is a comprehensive solution that covers all management processes of an agricultural enterprise, namely:

- planning tools that take into account such critical agricultural aspects as land bank management, labor and the movement of materials, technology, market volume;
- management in crop production (from the fields of planning, crop rotation and choice of

optimum agricultural cultivation technology to harvest);

- management of livestock (from planning to feeding livestock and to meat processing and production of semi-finished products);
- processing of agricultural products and their supply;
- motion control of agricultural machinery (requirements definition of the machinery, movement control of the machinery on fields, maintenance and decommissioning of old machinery);
- management of agricultural sales (demand forecasting, contracting, client payments enrollment and shipment of products);
- HR (determining staffing needs, training and retraining of staff);
- financial management (budgeting and monitoring the budget implementation);
- formation of the expanded reporting system including interactive control panels;
- costs management;
- profitability management;
- business productivity and profitability increase through analysis of time series, identifying deviations from the plan, analyzing the causes and making informed decisions.

For the enterprise "Mriya-2014", a business model was developed and introduced in the first year, which consists of the following units: sales plan, crop, cultivation, collection, farm accounting, production, sales, debt control. These business processes directly or indirectly affect the state of financial management in an agricultural enterprise.

Assessing the business model data for the agricultural enterprise "Mriya-2014" by the results of the first year, we can notice that this business model makes it possible to solve several problems at the enterprise, including:

1. strategic planning of the structure of sown areas;
2. application of modern farming practices;
3. cost optimization;
4. control of all business transactions in the enterprise;
5. qualified personnel;
6. automated production;
7. application of modern agricultural machinery.

Also, the designed business model for the agricultural enterprise "Mriya-2014", is oriented to the consumer.

Table 1

Business model oriented to the consumer [5]

Innovations stimulated by consumers	Joint procurement and suppliers management	Perfect plant	Brand management
-Constant innovations in the area of products and services -Advanced product development -The system ensuring compliance of the product with the established requirements	- Selection and qualification of a supplier - Contract analysis - Purchasing - Accounts payable - Goods management	- Effective production operations - Planning and implementation of production - Optimization of corporate assets	- Dialogue with consumers - Marketing optimization - Optimization of accounting and sales promotion
Staff	Basic personnel management and calculation of the salary	Time and attendance management	Planning and staff analysis
Finance and risk	Financial performance management	Financial management and financial risk management	Corporate risk management

We can therefore say that the use of the business model of this type allows to plan a full cycle of an enterprise - from the establishment of a base line and selection of optimal growing technology to the management of individual production units.

Industry solutions which are part of a business model contain the knowledge base of modern agricultural technologies due to which agricultural enterprises management has the ability to quickly select the most appropriate technology in crop or livestock production. The chosen technology sets limits on the use of seeds, plant protection, machinery, etc., deadlines for conducting the field work, qualification of the personnel necessary to carry out the field work. Within these limits each structural unit which is part of an enterprise, defines the

operational work plan with specific of a field, existing equipment and personnel.

Due to the functions of control implemented in a business model, quality of the field work and the state of cultivation, an agricultural enterprise is able to significantly reduce the risks of failure of business plans.

The process of implementing a business model is characterized by the following four maturity levels [12]:

A base line of maturity includes:

- minimum automation of business processes;
- lack of centralized management;
- lack of development of crisis management;
- high cost of software management;
- high vulnerability to security threats.

A standardized maturity level:

- basic standards;
- availability of a database for software and hardware;
- license management;
- automation of manual operations.

A rationalized maturity level:

- a control of infrastructure;
- availability of developed policies and processes for preemptive response;
- expenses for managing PCs and servers are reduced to zero;
- the application of preventive measures on safety at an enterprise.

A dynamic maturity level:

- understanding of the strategic value of the infrastructure;
- an effective collaboration between employees and the departments;
- support for mobile workers;
- business processes are fully automated.

Through the process of a business model implementation - a financial manager of an agricultural enterprise is able to:

- select the most efficient agricultural technologies in terms of profitability, productivity and subject to budget constraints expenses;
- determine the rotation based on the analysis of the history of precursors and monitor its compliance;
- quickly analyze deviations from the plan of works on selected technologies;
- respond quickly to changing of crop forecast due to various factors, including weather ones.

Let's look at the economic feasibility of a given business model in the agricultural enterprise "Mriya-2014" (Table 2). It should be noted that these figures are conditional, as it is impossible to be assess the business model and its impact on the financial management of an agricultural enterprise only during the first year of its operation.

Table 2

Economic feasibility of the business model in the agricultural enterprise "Mriya-2014" for financial management

Business goals	Strategic success factors	Business model influence
Increased capitalization	Increased revenues	50%
	Lower costs	100%
	Efficient use of working capital	75%
Continuous increase of activity efficiency	Improving the management system	50%
	Optimization of business processes	75%

Source: result of own researches.

Thus, the use of a business model enhances the strategic success factors and allows: increase revenue (increasing the market share, increase of production); reduce costs (reduction of production costs, reducing operational costs); efficient use of working capital ((increase of turnover, optimization of operating cash flow); improve the management system (optimization of the ownership structure, increase transparency, provide timely the accurate information); optimize business processes (identification of business processes with high potential for the development of best practices, automation of business processes).

A business model serves as a potential generator of cash flows affecting the market value of an enterprise. Meanwhile, the cost of the enterprise is defined by some internal factors of the model, the result of which is measured by return on equity (ROE). Therefore, using this indicator we can analyze and evaluate the busi-

ness model of the enterprise. Return on equity is represented as a three-factor Du Pont model.

This assessment of economic feasibility is achieved mainly with the impact on the basic units of the agricultural enterprise "Mriya-2014" (Table 3).

Table 3

Value of business models in the financial management of the agricultural enterprise is "Mriya-2014"

Financial management	Collection and processing of financial data
	Registry of accounts in a single system
	Unified payment system
	Unified records of business transactions
Sales / purchases	Methodology for calculating the cost of production
	Orders management
	Possibility of grouping of suppliers by type
	Accounting for livestock in two measurement units: livestock and kilograms of live weight
	Accounting for livestock on farms by class of livestock
Technical maintenance	Inspection planning and equipment repair tool
	Tool for fixing the results of calibration equipment
	Need for the formation of the order for planning / emergency repairs and maintenance of equipment

Source: result of own researches.

The implementation of the process of monitoring, recording and analysis at any stage allows to create a unified system of control over all financial resources and financial transactions.

That is, the application of the current business model in the agricultural enterprise "Mriya-2014" is accompanied by the following effect:

- costs are identified and controlled in their places of origin;
- reduction of inventory and expenses for materials, chemicals, fuel and services;
- reducing equipment maintenance costs;
- improving productivity and the level of profitability.

The return on sales of net profit, turnover of assets, the ratio of financial dependence characterize simultaneously three types of activity: operating, investing and financing activities. Therefore, analysis of these indicators allows to objectively evaluate the business model of the enterprise. The results of 12 factors decomposition of the ROE of "Mriya-2014" and "Vektor" are presented in Table 4.

Table 4

Assessment of the business model of the financial and economic performance of enterprises "Vector" and "Niva-2014"

Indicator	Mriya-2014	Vektor	Mriya to Vektor +/-
Gross margin, %	48	50	-2
Effect from business and management expenses	0,44	0,40	+0,04
Effect from financing activities	0,93	0,92	+0,01
Tax effect	0,77	0,75	+0,02
Cash management, days	50,1	47,33	+2,77
Receivables management, days	83,26	67,63	15,56
Inventory control, days	70,99	110,40	-39,41
Management of other current assets, days	19,82	18,86	+0,96
Management of fixed assets, days	18,82	18,91	-0,09
Management of other non-current assets, days	9,14	10,47	-1,33
Debt	0,07	0,19	-0,12

Source: result of own researches.

According to Table 4 indicators that characterize the level of profits in respect of both enterprises are the same. In its turn, as it is shown in Table 4, in "Mriya-2014" enterprise resources are traded in an average of 70.99 during the day, which is 35.7% less than in the organi-

zation "Vektor" (110.4 days). Also the enterprise "Mriya-2014" effectively controls the other non-current assets: the reversibility of other non-current assets amounted to 9.14 days, which is 12.7% faster than the turnover of the enterprise "Vektor". However, the enterprise "Vektor" showed the time of cash turnover less than 6% and amounted to 47.33 days. Also "Vektor" manages receivables more effectively: receivables are repaid at an average of 67.63 for the day, which is 19% faster than in the enterprise "Mriya-2014".

Conclusions. Financial management widely uses the concept of "business modeling" which allows financial managers to solve a number of important issues related to: assess of the degree of viability and sustainability of the enterprise, creating the basis for attracting investors, determining the specific direction of the enterprise, target markets and local businesses in these markets, achieving profit maximization under specific conditions, assessment of material and financial situation of the enterprise.

Despite the fact that the era of business models has begun recently, it has already shown significant results. Firstly, it affected the growth of value of an enterprise. Secondly, there are a number of samples for future planning of business models that can be learnt, imitated, modified and improved. Thirdly, many established provisions have been doubted, including the belief that some business models will always be viable. In the era of business models, the success depends on the speed and the ability of competitors to understand their nature and improve or adapt them to the needs of specific customers.

In conditions of contemporary challenges, enterprises seeking to improve their competitiveness and occupy a leading position in the market, must make the continued reform of the system of business process management, based on a detailed study of existing business processes, a thorough analysis of efficiency in accordance with the financial goals of enterprise and development measures for their improvement.

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