

Problems and prospects of management accounting improvement for innovation and investment activities in agricultural enterprises

Problemas y perspectivas de mejora de la contabilidad de gestión para actividades de innovación e inversión en empresas agrícolas

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Abstract

The modern Russian agro-industrial facility, including its key manufacturing industry - agriculture, is characterized by a steady transition from a reproductive type of development to an innovative one aimed at labor productivity increase, an effective implementation of import substitution and exports increase state policy in respect of agro-industrial products. The competitive development of agricultural production, the need to solve a complex set of tasks immediately concerning a multiple increase of domestic agricultural product manufacture, primarily through the use of new biological assets, presupposes an exclusively innovative development of agriculture. It is clear that this situation is associated with the need to find new sources of investment, and to intensify the innovative activity of agricultural enterprises. In these conditions, it is extremely important to consider investment and innovation as a single, integral system, the success of which depends on the level of agricultural production competitiveness and sustainability. Of course, the organization of research work in this aspect requires an adequate understanding of innovations and innovative product content and role, the mechanism of innovation use during their creation. In the market model of the economy, business entities are forced to use various methods of strategic planning, which makes it possible to take into account a set of unforeseen changes in the economic environment, including investment, which requires completely different



methods and means of management. Thus, the importance and role of accounting increases, because the objective need increases concerning the provision of complete and up-to-date information, sufficient for conducting current, operational and prospective analysis, diagnostics and controlling. We are talking about strengthening the role of the accounting and analytical system, the emergence of a new stage in the development of investment accounting.

Keywords: economic crisis, pandemic, sanctions, competition, import substitution policy, agriculture and agro-industrial complex, innovative development, investments, management accounting, information base, situational management.

Resumen

La moderna instalación agroindustrial rusa, incluida su industria manufacturera clave, la agricultura, se caracteriza por una transición constante de un tipo de desarrollo reproductivo a uno innovador destinado al aumento de la productividad laboral, una implementación efectiva de la sustitución de importaciones y el aumento de las exportaciones. respeto de los productos agroindustriales. El desarrollo competitivo de la producción agrícola, la necesidad de resolver de inmediato un conjunto complejo de tareas relacionadas con un aumento múltiple de la fabricación de productos agrícolas nacionales, principalmente mediante el uso de nuevos activos biológicos, presupone un desarrollo exclusivamente innovador de la agricultura. Es evidente que esta situación está asociada a la necesidad de encontrar nuevas fuentes de inversión e intensificar la actividad innovadora de las empresas agrícolas. En estas condiciones, es de suma importancia considerar la inversión y la innovación como un sistema único e integral, cuyo éxito depende del nivel de competitividad y sostenibilidad de la producción agrícola. Por supuesto, la organización del trabajo de investigación en este aspecto requiere una comprensión adecuada de las innovaciones y el contenido y el papel del producto innovador, el mecanismo de uso de la innovación durante su creación. En el modelo de mercado de la economía, las entidades comerciales se ven obligadas a utilizar varios métodos de planificación estratégica, lo que permite tener en cuenta un conjunto de cambios imprevistos en el entorno económico, incluida la inversión, que requiere métodos y medios de gestión completamente diferentes. . Así, aumenta la importancia y el rol de la contabilidad, porque aumenta la necesidad objetiva en cuanto a la provisión de información completa y actualizada, suficiente para realizar análisis, diagnósticos y controles actuales, operativos y prospectivos. Estamos hablando de fortalecer el papel del sistema contable y analítico, el surgimiento de una nueva etapa en el desarrollo de la contabilidad de inversiones.

Palabras clave: crisis económica, pandemia, sanciones, competencia, política de sustitución de importaciones, agricultura y complejo agroindustrial, desarrollo innovador, inversiones, contabilidad de gestión, base de información, gestión situacional.

Introduction

In the context of globalization, increasing competition and the integration of economic relations, only a proper activation of investment activities can ensure a dynamic, balanced, competitive development of the national economy.

Radical changes in production and information and communication technologies, the formation and development of an innovative economy led to the need to expand the investment paradigm with the allocation of a separate trend in them - innovative investment.

The analysis and generalization of special scientific literature on the issues under consideration allows us to assert that investment in agriculture is a complex of long-term investments that allow to generate the value of long-term fixed capital in material, financial, informational and intellectual

forms (Ushachev, 2007; Polterovich, 2009; Misakov et al., 2016).

In the course of our research, we studied the scientific works of the most famous scholars in the field of theoretical and methodological provision development regarding investments and innovations (S.N. Abramov, V.M. Bautin, S.Yu. Glazyev, N.D. Kondratyev, I.S. Sandu, I.G. Ushachev, V.N. Yasenev and others), in the field of disclosing the mechanism of accounting and analytical support for investment and innovation management (V.I. Baralenko, M.A. Vakhrushina, V.G. Getman, I.N. Zabrodin, N.A. Kazakova, V.E. Kerimov, V.V. Kovalev, V.S. Misakov, M.L. Pyatov, V.P. Suits, Ya.V. Sokolov, A.D. Sheremet, V.G. Shirobokov and others).

The above and other researchers have made a significant contribution to the development of accounting and analysis management theory. At the



same time, it must be admitted that many more questions regarding the problems of management accounting development for investments concerning the development of innovative products in the agricultural sector have been little studied and require further research.

Study Methodology

The theoretical and methodological basis of our study was the works of the most famous Russian and foreign scholars and practitioners on the problems of investment and innovation activities organization and development, legislative and regulatory acts on the regulation of investments and their accounting, monographs and scientific articles on various problems of accounting and accounting management for investments concerning the development of innovative products, intellectual assets, etc.

A detailed analysis of such scientific works allowed us to substantiate and develop our own position on some issues within the framework of the studied scientific and practical problems and offer a number of practical recommendations for their improvement.

In the course of the study, we used general scientific and special methods of cognition: deduction and induction, synthesis and analysis, grouping and generalization, systematization and various methods of obtained data interpretation, which made it possible to determine patterns and identify contradictions and problem points of the topic under study, and to generalize the results of the study.

The information and empirical base of the study was the official information of the website of the RF Ministry of Finance, the RF Ministry of Agriculture, the statistics of the RF Federal State Statistics Service, the RF Federal Tax Service, as well as a number of methodological and informational and analytical materials of well-known periodicals on the development of accounting and accounting management of investments for the development of innovative products.

Study Results

The former - Soviet - accounting system implemented absolutely the socialist model of the national economy functioning, based on centralized planning and management and absolute domination of state property. The key task of the Soviet system was to ensure proper control over the

implementation of the state plan and the safety of state and collective farm property.

The transition to market relations radically changed the position of economic entities - they became independent in everything and fully responsible for their activities and the results achieved. Thus, the form and content of the accounting and analytical system has changed radically ...

Today, in the conditions of an innovative economy development, we witness the emergence of the next (new) stage in the development of accounting - namely, management accounting for investments. This is certainly fraught with many difficulties. So, for example, there is still no concept of "investment property" in Russian accounting (PBU 15/08 "Accounting for expenses on loans and credits" only refers to an investment asset), moreover, the term "investment" is not used in any way in the context of accounting ...

All this, in our opinion, allows us to assert that the current Russian accounting system is unavailable and inconsistent, including accounting for investments, to function in full accordance with the requirements of market relations. (Note that 2 standards are assigned to the problems of accounting for investments in IFRS: IFRS-16 "Fixed assets" and IFRS-40 "Investment property"). Moreover, if in Russian accounting investments are examined in the form of processes of a long-term asset development (this is acquisition, construction, creation, etc.), then in IFRS they are positioned in the form of finished objects as investment property (Volkova & Denisov, 1999; Misakov & Betrozov, 2012; Kerimov, 2014).

The account 08 "Investments in non-current assets" reflects the so-called real investments. This account is a pricing account.

In accordance with the provisions of the current system of domestic accounting, we will single out the characteristic objects of investment in fixed assets:

1. Fixed assets
2. Profitable investments in tangible assets (income from rent or from capital gains)
3. Intangible assets
4. Innovative products, innovative projects, etc.

It should be noted that the quality of the information generated in the accounting and analytical system depends to a greater extent on the accuracy and completeness of investment classification, which, of course, provides ample opportunities for targeted and effective impact on the object of management and for an optimal accounting tool selection, taking into account its



features. It is clear that an innovative spirit must be inherent in investment policy.

Innovative investments in agriculture (taking into account its characteristics) can be in the form of:

- investments in breeding and genetic innovations;
- investments in technical, technological and production innovations;
- investments in organizational, managerial and economic innovations.

The transition of the national economy to an innovative path of development forces to revise a number of provisions of Russian accounting science in the context under consideration, to adapt the concept of its organization to active transformations in the domestic economy. In these conditions, the traditional reflection of the facts that have taken place is extremely insufficient already. Modern accounting should be turned to the future, be sufficiently accurate and prompt, which will allow us to respond quickly and adequately to the identified deviations and develop effective management decisions (Makhmudov, 2019; Shabalin, 2008; Govdya et al., 2016).

In (Avilkina, 2011), it is proposed to understand expenses in accounting as “the reduction of economic benefits after the disposal of assets or the emergence of new liabilities”. The author proceeds from the assumption that costs are converted into finished goods, semi-finished products, work in progress, or costs.

At the same time, in our opinion, it is difficult to recognize the statement that costs are non-current assets as fair - after all, investments are not costs a priori. Hence, it must be assumed that the costs act as a cost estimate of all the resources used and the costs, which are transformed either into assets (circulating), or into the expenses of main and other activities.

Hence, the use of specific types of resources for the development of innovative products is the investment in innovation. At the same time, they can act as an asset (non-current) with a positive result, or as a loss with the opposite result. It is appropriate to add here that the current Russian statistical reporting does not provide for recognition (determination of costs) on an accrual or on a cash basis. (In accounting, costs are calculated on an accrual basis).

Another problem is the need to distinguish between an asset that has a material form, attributed to the production and technological process, and special rights that do not have material forms, physical value, and a section in which this object is reflected. To be fair, it should be noted that the RF Ministry of Finance regularly explains the specifics

of constructing and disclosing information about innovations and modernization of production, taking into account the new requirements of accounting regulations, with recommendations on the need to provide additional information in explanatory notes, taking into account their significance.

At the same time, there is an inadequate level of implementation and application of the new management accounting system in modern realities, due to the lack of experts in the field of management accounting. In the course of our research of a number of farms in the agro-industrial complex of the North Caucasian republics, we were convinced that the majority of accounting employees are extremely poorly versed in management accounting, are not able to group information on the subject of external financial reporting, what needs to be kept secret from outsiders, etc.

The information generated in agricultural organizations concerning the management accounting system in the context of their investment and innovation activities must comply with the basic provisions, i.e. to be relevant, complete, reliable and allow you to keep a separate record of investments and current costs, both in everyday financial and economic activities and in the field of innovation.

Of course, together with generally accepted principles, agricultural organizations have the right to develop and use their own rules and regulations by their accounting and analytical services during the construction, processing and provision of information in the system of management accounting organization for investment and innovation activities (Shabalin, 2008; Shirobokov, 2012; Sycheva et al., 2019).

Conducting a systematic analysis of investment and innovation activity development on the basis of the existing accounting and analytical system using an integrated approach makes it possible to form an integral information environment in a single space and thereby combine all its elements and blocks into one whole (Gauzhaev et al., 2013; Zubareva, 2009; Horuzhy, 2011).

Foreign specialized scientific literature has many models for the implementation of an innovative project. In our opinion, the model of the stage-by-stage development of the innovative project “Stage-Cate” proposed by R. Cooper is interesting and useful (Makhmudov, 2019).

In accordance with the provisions of the “Stage-Cate” model implementation, the entire cycle of an



innovative project (origin, concept formation, launch) is divided into a number of successive stages. The entry point to each subsequent stage is the point of making management decisions (Cate).

R&D project is the most difficult, costly and time-consuming stage in the development of an innovative project. A feature of the model under consideration is the ability to manage and, therefore, control the investment flow and the project itself directly for the development of an innovative product in the context of its implementation stages.

After the completion of the next stage, the next point for making investment management decisions is determined.

Another feature of the model under consideration is the ability to search for ways and means to reduce the implementation time of an innovative project and innovative costs for its implementation, through the use of a cost accounting system in the context of the relevant stages of the project life cycle and its control elements. Indeed, from the moment when the innovation process "fired" the idea of a certain innovative product development, an enterprise faces many issues, incl. a project selection, necessary resources, and sources, etc. It is clear that at the appropriate stages and points of making investment management decisions, various tasks arise before management accounting, which requires a separate management accounting methodology.

The point is that the analytical accounting itself should act as a supplier of the necessary information in the context of the enlarged stages of an innovative project with detailing and adjusting the cost parameters by items and elements.

It seems to us expedient to move away from the boiler process accounting method to a step-by-step-oriented approach, since it more adequately covers and reflects the features of innovation processes. It is also appropriate to use the ABC method. This symbiosis will make it possible to distribute effectively the costs of a specific period by type of activity (processes, functions) (Belov, 2013; Sokolov, 2000; Govdya et al., 2017).

To account for the formation and mobilization of funds in the form of investment financing as the part of management accounts, it is advisable to use a group of transit accounts (36 "Investment and innovation fund", 37 "Use of funds from the investment and innovation fund"). At the same time, the credit of account 36 will reflect the formation of reserves from its own sources and funding from management sources, and on debit -

the use of these funds when they implement investments for an innovative product development.

By registering primary data on the use of investment and innovation resources in the course of carrying out the specified work, the actual volumes of work performed are measured objectively, the indicators of earned volumes are established in accordance with the selected methods and means, reports are prepared and submitted on the real state and identified problems, their consideration and adoption of corrective actions takes place at the appropriate point of making investment management decisions. All this, of course, allows you to see with your own eyes the real situation of an innovative project promotion (Ushachev, 2007; Chernyavskaya et al., 2018; Govdya et al., 2016).

In general, the algorithm for an innovative product development consists of the following stages.

1. The stage of an innovative project preparation (formation of an information base, marketing research, calculation of investment needs, identification of possible sources of investment, terms of project implementation, identification of responsibility centers).
2. The stage of an innovative project implementation (an innovative product development, putting it into circulation, development of reporting information for analysis and control).

The proposed management accounting methodology allows you to cover and control all stages of an innovative project implementation and determine the dynamics and the set of investment costs for its implementation, as well as improve synthetic accounting and the organization of analytical accounts regarding the necessary relevant accounting and analytical information.

It should be noted that breeding and other work on the development of an innovative product in the agricultural sector continues for a long period, which implies that management records of the work actually done should be kept not only quarterly, but also by months in the context of decades. The point is that the organization of continuous current control for investments during the development of innovative products requires a systematic comprehensive analysis of intellectual work results in the context of responsibility centers, whose task is to identify the positive and negative aspects of the products being developed, and to develop the best version of an innovative project (Zubareva, 2009; Misakov et al., 2013; Sycheva et al., 2019).

It seems to us that our proposed algorithm and recommendations for management accounting



organization for investments during the development of innovative products allow us to build an effective accounting and analytical system and increase information content as innovative activity effectiveness provision factor in agriculture.

Conclusions and offers

Our research and the results obtained allowed us to generalize and formulate the main conclusions that have theoretical and practical significance.

1. The formation of an innovative economy in the agricultural sector enhances the role and place of investment. The need for a scientifically based classification of investments in agricultural production, including selection and genetic, organizational and managerial, technological, production, socio-ecological, economic and other types of innovations is due to the fact that the quality of system management depends on the correctness and objectivity of investment classification.

2. The current system of accounting organization is traditionally aimed at fixing already held business facts. Globalization, increasing competition and the intensification of economic relation integration force the Russian agrarian economy to pay more attention to innovation, to rebuild (adapt) the system of management accounting and economic analysis into an effective toolkit for situational management within new, extremely changeable economic conditions.

3. The construction of a systematic, conceptual approach to the investment activities of economic entities of the agro-industrial complex is caused by the need to form an adequate information base, taking into account the industry characteristics and the content of the innovative management paradigm of investments, as well as the development of modern accounting mechanisms for the implemented strategic plan concerning the activities of diverse enterprises. This approach allows you to create a platform for the development of a structural and logical model of management accounting and the analysis of investment and innovation processes.

4. The proposed algorithm and practical recommendations for accounting and analysis improvement make it possible to obtain information in the volume and relevance necessary for the situational management of all interested users. The thing is about the possibilities of innovative projects, innovative products and asset use in management accounting as direct accounting

objects through the development of new regulatory and methodological documents on the reasonable regulation of investment accounting during the development of innovative products.

Conflict of interests

The authors declare that they have no conflicts of interests.

References

- Avilkina, M.A. (2011). Accounting and cost analysis for the creation of innovative products in higher educational institutions: state and development prospects: the thesis by Ph.D in economics. - Minsk, - 176 p.
- Belov, N.G. (2013). Accounting methodology for investment activities of agricultural organizations. - M.: Publishing house RSAU - Moscow Agricultural Academy, - 56 p.
- Chernyavskaya, S.A., Korovina, M.A., & Zherdeva, O.V. (2018). Analysis of the regional food subsystem formation and development. *Journal of Applied Economic Sciences*, 13, 8 (62), 2323-2339.
- Gauzhaev, A.Z., Mairov, A.Yu., & Misakov, V.S. (2013). Institutional and organizational context of modernization strategy for the development of regional industrial complexes. *Terra Economicus*, 11(2-2), 62-66.
- Govdya, V.V., Khromova, I. N., Vasilieva, N. K., Sigidov, Y. I., & Polutina, T. N. (2017). Decomposition approach to formation of accounting and analytical system of cost management in agricultural enterprises. *Journal of experimental biology and agricultural sciences*, 5(6), 818-830
- Govdya, V.V., Sigidov, Y.I., Korovina, M.A., Trubilin, A.I., Vasilieva, N.K. (2016). Creation of provision for doubtful debts. *International Journal of Economics and Financial Issues*, 6(4), 1542-1549
- Horuzhy, L.I. (Ed.) (2011). *Accounting and analytical system of the agricultural sector: monograph*. Bryansk: RIO BSU., - 296 p.
- Kerimov, V.E. (2014). Methods for assessing the effectiveness of investment projects in agricultural organizations. *Accounting in agriculture*, 3, 65-72.
- Korovin, A.V. (2011). Analysis of an enterprise financial potential. *Audit and financial analysis*, 6, 76-86.
- Makhmudov, A.R. (2019). Organization of management accounting of investments for the creation of innovative products in



- agricultural organizations. *International accounting*, 3, 274-289.
- Misakov, V.S., & Betrozov, M.Kh. (2012). Factors and conditions contributing to the growth of threats for the economic security of the regional economy. *Terra Economicus*, 10(4-3), 169-172.
- Misakov, V.S., Inalov, B.A.M., & Eskarkhanov, L.U. (2013). The role and content of the risk management system. *Terra Economicus*, 11(2-2), 28-32.
- Misakov, V.S., Kuyantsev, A.I., Dikinov, A.H., Kazancheva, H.K., Misakov, A.V. (2016). National agriculture modernization on the basis of import substitution. *International Business Management*, 10(10), 1946-1951.
- Polterovich, V.M. (2009). Problems of a national innovation system development. *Economics and Mathematical Methods*, 2, 3-18.
- Shabalin, A.N. (2008). *Investment design*. - M.: Publ. center EASI, - 184 p.
- Shirobokov, V.G. (2012). Development vector of an active-adaptive accounting system in the agro-industrial complex. *International accounting*, 31. - [Electronic resource]. - Access mode: <http://cyberleninka.ru/article/n/vektor-razvitiya>. – (Reference date: 04.05.2018)
- Sokolov, Ya.V. (2000). Management accounting: myth or reality?. *Accounting*, 18, 62-81.
- Sycheva, I.N., Chernyshova, O.V., Panteleeva, T.A., Moiseeva, O.A., Chernyavskaya, S.A., & Khut, S.Yu. (2019). Human capital as a base for regional development: a case study. *International Journal of Economics and Business Administration*, 7(S1), 595-606.
- Tsurova, L.A., Musaev, M.M., Kushkhov, A.P., Misakov, A.V., Misakov, V.S. (2019). Ecological settlements as one of perspective forms for Russia rural territory multifunctional development. *International Transaction Journal of Engineering, Management and Applied Sciences and Technologies*, 10(1), 135-142.
- Ushachev, I.G. (Ed.) (2007). *Innovative activity in the agricultural sector of the Russian economy: monograph*. - M.: Kolos., - 636 p.
- Volkova, V.I., & Denisov, A.A. (1999). *Foundations of system theory and system analysis*. - 2nd ed. - SPb: SPbSTU., - 512 p.
- Zubareva, L.V. (2009). *Methodology for accounting and analysis of investments in fixed assets*. - Saratov: SSU, - 352 p.