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Improving Directions Substantiation of Activity-Based Management in Agrarian Enterprises.

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ABSTRACT

This research work is devoted to analysis of the most important practical questions of the process-oriented management developing in the framework of agricultural enterprises functioning. Is it possible to integrate process management into the existing system of functioning of agricultural organizations? Are business leaders ready for managerial reorganization? The answers on such questions are represented in this work.

Keywords: a process-oriented management, an activity-based management, agricultural enterprise

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INTRODUCTION

In conditions of economic sanctions against Russia and the need for accelerated import substitution for agricultural producers, have appeared the circumstances that stimulate the production development. However, the realization of the opportunities provided by the external environment is not feasible without transformation of the internal environment, management technologies improvement, applying of modern scientifically based management approaches in the agrarian sector.

One of such approaches is an activity-based (process-oriented) management, which has already well proved itself abroad, as well as in other sectors of the economy. This concept allows considering the control object as a complex system of business and technological processes of the enterprise, providing the best opportunities for solving a number of actual problems for the agricultural producers. The process approach helps to reduce costs, to be orientated to the continuous improvement ideology, to increase the speed of adaptation to changes and to provide the formation of a synergetic effect from strengthening interconnection between various areas of economic activity. Thus, the development of this management concept in the agrarian sphere acquires an increasing importance in modern conditions.

One of the specific features of agrarian production is a lag presence in the development of modern management tools, also a low level of information technology implementation in the enterprise management and not enough readiness to perceive new technology from the leadership.

This socio-economic barrier is one of the most significant obstacles in developing modern management technologies, such as process-oriented management, which, according to experts, "... is currently one of the most important tools for increasing business efficiency". As S.A. Kuchin points out, the process approach provides managerial creativity [3, p. 85], using the advantages of which is impossible without the willingness, initiative and active participation of the management subject.

The need for studying the management improving problem in the agricultural enterprises through the prism of the process-oriented approach nowadays is very urgent and requires the development of both approaches to their solution: theoretical-methodological and, of course, practical.

MATERIAL AND METHODS

This research work is devoted to the answers analysis of the most important practical questions of the process-oriented management developing in the framework of agricultural enterprises functioning.

Is there an understanding of the essence of process-oriented management and the possibilities of its implementation in practice? How do specialists of agricultural enterprises treat implementation of the process approach? Is it possible to integrate process management into the existing system of functioning of agricultural organizations? Are business leaders ready for managerial reorganization?

Answers to these and other questions allow us to identify existing problems and characterize the opportunities for management improving in the agrarian sector. As respondents, during the expert survey, were selected highly qualified specialists of the agrarian sphere whose competent opinion allows obtaining reliable information for the problem analysis.

The survey involved 36 managers and specialists of agricultural enterprises of the Stavropol Territory, the Russian Federation. Among the survey participants there were 21 heads of the enterprise, 5 chief economists, 3 main agronomists, 6 chief accountants, 1 chief engineer. A random sampling procedure was used for the selection of respondents: one specialist or a manager from 36 large and medium-sized agricultural enterprises of five districts of the Stavropol Territory (Krasnogvardeysky, Grachevsky, Trunovsky, Petrovsky, Mineralovodsky districts). Territorial entities are located in the central zone of the region, where are represented the best conditions for production diversifying and, therefore, the higher need of the process management approach.

The results of the survey were processed using the computer program IBM SPSS STATISTICS 22.0.0

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RESULTS AND DISCUSSION

The analysis of the general level of experts' awareness of modern management technologies showed that respondents assess their awareness in modern management technologies rather high. Thus, 77.8% of experts chose the answer option "Well-known and consider it promising" in relation to strategic planning and in relation to the concept of "lean production" - 61.1%. Process management was on the third place, it was noted as a promising technology by 55.6% of survey participants. The least degree of acquaintance was demonstrated in relation to such management technologies as "Simulation modeling", Total quality management (TQM)" and "The Six sigma": more than 80% of respondents chose the answers "I've heard a little about it" and "I did not hear anything about it" (figure 1).

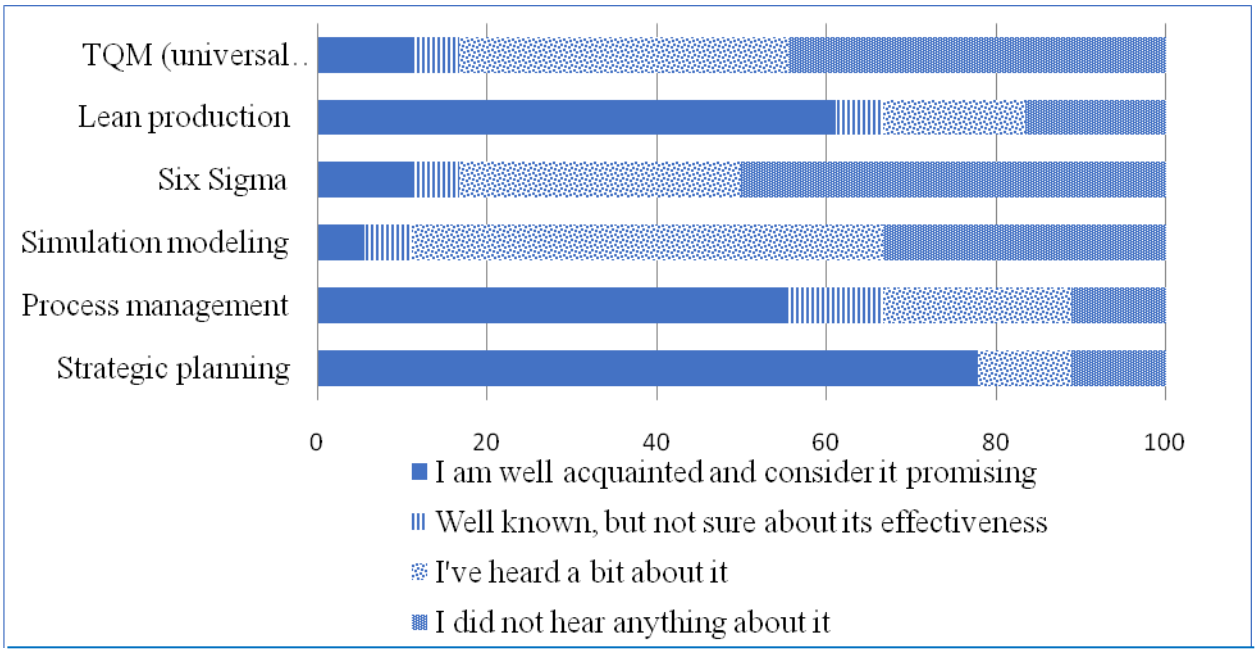

Figure 1: Degree of awareness of agricultural organizations leaders about the several management technologies, %

At the same time, the processing results of personal data support the hypothesis of the almost complete absence of a comprehensive understanding of the process-oriented approach as a fundamental element of modern management technologies by the top management of the agrarian sector. A significant negative value of the kurtosis exponent index and a positive coefficient of asymmetry demonstrate the disjointed nature of managers' representation about the process-oriented approach. The highest value of the asymmetry coefficient is observed between process management and TQM, as well as the Six Sigma concept.

Such a lack of a coherent system that fully reveals the essence and real possibilities of the process management approach to the Russian enterprises was noted in the works of A.V. Sobakareva and M.A. Ivanova [1, 6].

In general, the positive experts' attitude towards the process-oriented approach is confirmed by the structure of respondents' answers to the question "Do you see the prospects for introduction the process management model in your enterprise?" Two-thirds of the experts responded positively, the remaining third of the specialists are still at a loss with the answer to this question, only two of them have chosen a negative answer.

The analysis of the structure of the answers in the context of the selected groups (in terms of efficiency, as well as a level of production diversification) showed the following results. The number of proponents, who considered the prospect practice of the process approach, increased with the growth of enterprises profitability that were represented by respondents, as well as with the expansion of productive

activities (crop production, livestock, processing of agricultural products). The obtained results disprove the assumption that specialists of agricultural enterprises are very cautious about process-oriented management.

As a rule, the decision to implement the process approach in the organization is taken due to the presence of certain difficulties and management's awareness of the need for changes. Respondents were asked to assess on a 5-point scale the level of significance of a number management problems It turned out that experts are most concerned about the problems associated with information support: the lack and untimeliness of information for management decisions (figure 2).

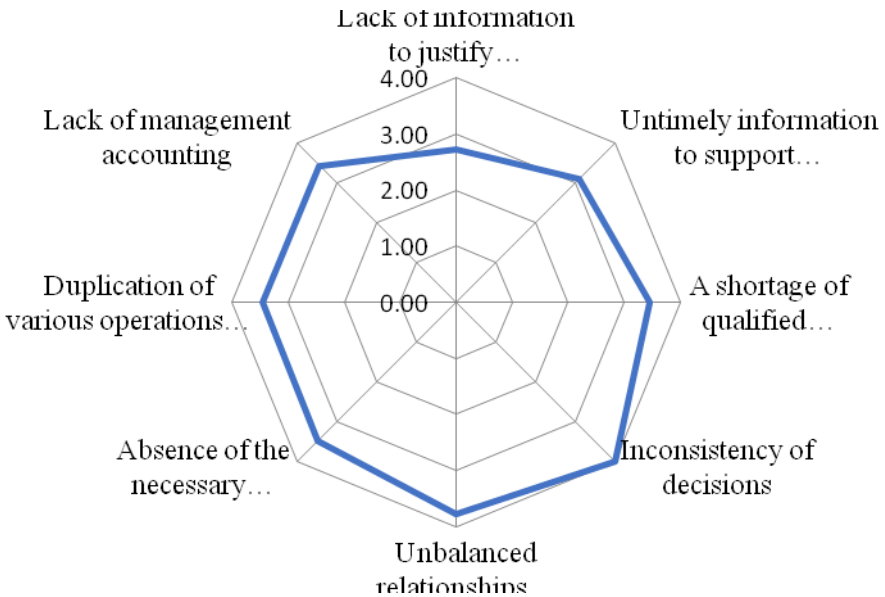

Figure 2: The importance differentiation of the management problems in the agricultural organizations, the average scoring score

Next, the respondents identified among the key problems a shortage of qualified management personnel, duplication of various work operations and functions, as well as the lack of management accounting and the necessity of regulatory documents. Least significant respondents considered difficulties in establishing relations between departments and the inconsistency of making decisions.

An analysis of the answers structure showed that the smaller the agricultural organization is in size, the more it faces with a large share of management problems. This is due, first of all, to the shortage of qualified managerial personnel - this problem was the most significant for enterprises with an average annual number of employees less than 200. But the inconsistency of making decisions is the main problem of large agricultural organizations and that is quite evident.

At the same time, has not been confirmed such a hypothesis: the higher the level of enterprise profitability - the fewer management difficulties it has. Despite the high profitability indicators (35% and more), according to respondents' answers from these organizations, management has virtually all of the listed problems, and to the greatest extent - the late arrival of information, as well as problems with the availability of the necessary regulatory documents.

In terms of the extent of production diversification, the results of the survey show that the more enterprise is diversified, the more the problem of lack regulatory documents grows, as well as lack of timely information. At the same time, according to experts, the severity of managerial problems in diversified enterprises is slightly less than in the specialized ones.

During the processing of the questionnaires, the tightness of the relationship between two series of ranked answers was assessed: for the inconsistency of management decisions and other management

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problems, such as the lack of information needed to make managerial decisions and the unworkable relations between internal departments (Table 1).

For the estimation, we used the Mann-Whitney U-test, the asymptotic significance of which indicates that there are no differences between the groups. In other words, some respondents who consider the management decisions taken at the organization level as fully coordinated, and the other part that recognizes the problems in alignment, equally experience the problems of late receipt of information necessary for making managerial decisions, and notes the lack of settled relationships between departments.

Table 1: Results of the Mann-Whitney U-test

Problems in the field of management	Lack of information for coordinating management decisions		Late information receipt to support management decisions		Unmanaged inter-departmental relations	
	the Mann-Whitney U-test	Asymptotic significance	the Mann-Whitney U-test	Asymptotic significance	the Mann-Whitney U-test	Asymptotic significance
Decisions were made inconsistency	8,0	0,8	8,5	0,9	6,5	0,5
Agreed decisions						

In general, the obtained data correspond to the materials presented in the literature, when "... the company's management, and even those who own business, often realize the need for change, but in the reality are not ready to change anything in a system that exists for a long time and brings a regular income ... "[4].

Also in the literature there is an opinion that Russian companies formally relate to the issue of regulating system. This attitude is often associated with incomprehension of goals regulation, "adequate methods" and experience [5]. A complex functioning system of any, especially large and diversified enterprise, includes “the interlacement” of various management subsystems: production, finance, marketing, personnel and infrastructure, quality control and safety. Each subsystem has its own set of stable links that need detailed description, documentation and regulation in order to streamline the company's operations and improve manageability. If management assigns high importance to the regulation of separate management subsystems, this have a positive effect on the overall performance of all company. When respondents asked to assess what part of the organization's activities are regulated, only 41% of the respondents noted the existence of a complete regulation description in certain spheres of economic activity; a fourth part of the answers indicated a partial description, and 22% of the respondents stated the lack of activity regulation(Table 2). One of the experts, who has practical experience in implementing process-oriented management, confirmed the need for the system to regulate all important enterprise areas: from technology to provision and marketing, down to a detailed description of specific operations and functions.

«The leader» in the field of regulation is accounting, which was noted by 72% of respondents. In half answers, the full regulation of production processes is indicated. "Narrow" places in the sphere of development and application of regulatory and methodological documentation, according to the survey data, were two types of activities: provision and sale: 33% and 56% of respondents, respectively, noted the absence of any regulation in these areas.

Table 2: The regulation level of agricultural organizations activities, %

Activity	Fully described	Partially pescribed	Not described	Difficult to answer
Production	50	16,7	11,1	22,2
Technological	33,3	38,9	11,1	16,7
Sales	11,1	11,1	55,6	22,2
Planning and Economic	38,9	44,4	5,6	11,1
Accounting	72,2	11,1	5,6	11,1
Equipment (provision)	22,2	22,2	33,3	22,2

The high empirical value of the Pearson correlation (0.85) between the regulation level and the profitability of agricultural organizations, confirmed by the significance index (0.04), reveals a direct relationship between these factors. This statement confirms the importance of using the process approach in managing agricultural production, because one of the most important elements of this approach is a business processes regulation.

The answers analysis of the question: "What types of regulatory documents are used in your daily practice?" Showed the wide application of standard regulatory documents, which include job descriptions and official duties, as well as normative documents (primarily, on wages). 89-94% of respondents indicated presence and active practice using of these types of documents.

The interview also confirmed the hypothesis of insufficient distribution of process regulations in agricultural organizations. In the questionnaire, as examples of regulation documents, were represented such forms as the quality of grain assessment and the rules for servicing expenditures requests. But even with the condition of such decoding, only 16.6% of respondents indicated their presence.

The obtained results, on the one hand, disprove the prevailing view that "the regulation of processes is a very popular tool for streamlining the activities of the enterprise" [5], and on the other hand confirm that in practice it is very complex to regulate production activities effectively. Thus, for example, the low value of the Friedman's test (x^2) and its asymptotic significance does not confirm the existence of a relationship between the availability of job descriptions (duties) and the lack of a problem of inconsistency between departments. All this confirms once again the formality of the description of activities in organizations and the availability of some documents that are bureaucratic in nature.

The next question of the study was dictated by the peculiarity of the process model, which has an orientation to the final result. In case if the enterprise has no goals and indicators, reflecting the measure of their achievement, the further implementation of the process approach makes no sense.

As a positive fact, it should be noted that answering the question: "Do you have formulated measurable objectives in your organization?" almost all specialists noted the existence of targets in their enterprise, only one respondent chose the answer "Not yet, but are going to do it". Nearly 46% of indicated a clear definition of medium-term goals, while the rest respondents gave a positive response to the existence of short-term managerial goals in agricultural enterprises.

It is interesting to note the revealed regularity: agricultural organizations with a lower level of profitability, according to the group we have identified, do not have formulated goals for the medium term, but are limited only by following the operational plan. These data confirm the importance of goal-setting, as a starting point for planning and establishing organizational relationships in the enterprise. Clearly formulated goals with measurable results help to disclose the purpose of each process in core activities and subsequently effectively monitor it, which has a positive effect on the entire organization [1].

In general, managers and specialists of agricultural enterprises do not have a clear idea of specific aspects of the process approach implementation, even if they refer it to advanced modern management technologies. So, according to a rather optimistic opinion of half of the experts, the duration of this technology implementation period can reach up to 1 year, 22% of respondents believe that this period is in the gap from one and a half year (that was confirmed by the practicing expert who mastered the initial stage of the process approach setting during 1 year and 7 months. Every fourth respondent refrained from answering this question.

The process-oriented management implementation requires to solve an acute problem of changing the organizational structure of the enterprise, also to develop an improvement project for the staff duties clarification. The owners and boundaries of business processes are defined, are formed an inter functional communications, ensuring unhindered implementation of processes. [4]

The need of the organizational restructure as a serious obstacle to the process model development was considered by every fourth expert, and in the enterprises with a high level of diversification - every second expert. Respondents include other obstacle factors of the process management implementation in agriculture, such as insufficient level of staff qualification (40%) and lack of general information about process

management (30%). These factors are noted by all experts from small-sized agricultural organizations. Obstacles, such as a lack of financial resources and time expenditure, concern respondents rather less: nearly 25% and 10% of the answers, accordingly. This once again confirms the conclusion that experts do not represent at all the required costs of the process-oriented management mastering.

Process-oriented management as a relatively new phenomenon in the agricultural sphere can not be realized without modern information technologies using. The high level of using the various types of accounting and management automation software, according to the survey, is a typical situation for medium and large business entities. And organizations with small number of employees in the agricultural sphere use the software products only for the needs of tax accounting.

There is also a clear correlation between the level of agricultural organizations profitability and the use of a wide range of automated software products in the field of management and accounting: almost 90% of highly profitable organizations use different versions of software in this area.

In the opinion of V.A. Makhovsky the organization transition to process management model should be gradual, evolutional, with maximum preservation of managerial and informational experience [4]. But, unfortunately, most of these software tools require a long and serious reconstaruction for the process management needs due to the features of its own functionality.

As it was already mentioned above, the majority of specialists highly appreciate the potential utility of the process-oriented management. The main expected results from the process approach implementation in the field of effective organization management are primarily related to timely adoption of managerial decisions (55%) and an increase of the results predictability (44.4) (Table 3). The third place is occupied by the expectations related to the increase of the management decisions implementation: improving the quality and completeness of incoming information for making managerial decisions, the reasonableness of their adoption and prompt delivery to performers (38.9%).Another group performs the expectations in terms of process improvement: unclaimed processes elimination, orientation to process results and reducing of unnecessary vertical interactions.

Comparing the expected results from the process approach introduction and the availability of the management problems, noted in the survey, were found coefficients of their connection.

Table 3: Expected results from the process approach implementation to management in the agricultural organization

Rank	In% of the total number of responses	Results
1.	55,6	Timeliness of development and adoption of managerial decisions
2.	44,4	Increased predictability of results
3.	38,9	Validity of making management decision
3.	38,9	Prompt delivery of managerial decisions to performers
3.	38,9	Improving the quality and completeness of incoming information for making managerial decisions
4.	27,8	Reduction of unnecessary vertical interactions
4.	27,8	Process orientation to result
4.	27,8	Exclusion of unclaimed processes
5.	22,2	Coordinating the actions of departments within the process
6.	5,6	Difficult to answer

The most often expected results in improving the quality and completeness of incoming information for making managerial decisions are considered in combination with solution of the lack incoming information problem (coefficient of coupling 0.13). Naturally, the desire of managers to reduce unnecessary vertical interactions is combined with the solution of the problem of establishing relationships between departments (the coupling coefficient is 0.2). At the same time with the need of coordination work is eliminated the

duplication of various functions and operations (coupling coefficient 0,07). On the basis of the obtained data, it can be concluded that the quality of incoming information for making managerial decisions primarily depends on the rationality of the enterprise teamwork.

Also, the expert notes a high degree of the process approach individualization, taking into account the specifics of a single agricultural organization functioning. In this case should be taken into consideration the complex of economic activity features, such as natural and geographical position, weather conditions of the agricultural year, technologies, specialized equipment, etc.

The specialists of the agricultural company, that have practicing the process-oriented management for almost 10 years, reported the following results of its application:

- management began to receive more reliable and timely information about the processes;
- management intervention in the management process at the operational level is reduced to the required minimum;
- the risk of dependence on the results of operations and processes made by the "irreplaceable people" is removed;
- there was an opportunity for rapid technology adaptation of growing crops throughout the production cycle (from sowing to storing finished products) to changing weather factors and market conditions, which is a critical factor for agricultural production;
- due to the created base of intangible assets (in the form of regulations, standards, trained personnel), the cost of agribusiness has increased.

CONCLUSIONS

The conducted research shows a sufficiently high level interest of managers and specialists of agricultural organizations in the use of the process-oriented approach within the framework of the enterprise management improving. Most specialists aware of the importance of timely made managerial decisions and their prompt delivery to performers. In the current conditions of management, taking into account the specifics agricultural production, managers recognize the need to improve the predictability of performance results.

Specialists of agricultural enterprises, for the most part, are ready to introduce the process management model into everyday practice, and have high expectations for it. But the lack of knowledge about the nature and features of the process technology hinder its implementation. This only confirms the need for work on creating process management methodologies, taking into account the specific nature of agricultural production, adapting modern software tools, training and consulting on the process management implementation in the farms, as well as managers training and retraining.

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