

ESTIMATION OF CURRENT STATUS OF INTERNAL ECONOMIC CONTROL IN RUSSIAN AGRICULTURE

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Abstract. The problem of internal control is crucial on modern life conditions in the Russian Federation. Agricultural companies have neither specialists nor desire to execute internal control. Only few companies have established internal control appropriately but these are mainly big companies and/or the companies with foreign capital. The article is aimed to estimate the current state of internal economic control, to present the reasons of this state and to offer scientific methods for improving internal control in agricultural companies. Internal control conditions of 32 small and medium-sized companies in the Russian Federation were investigated and presented in the article. The condition of internal control is not satisfactory. It is caused by implementation of old-fashioned managerial principles, low skilled specialists and non-payable work of controllers. The method of factor analysis and control of cost deviation in production of agricultural products is presented in the article.

Key words: controlling, efficiency, management, economic analysis, agricultural companies (enterprises).

JEL code: G3, Q12

Introduction

Efficiency of agricultural production depends on many factors, for instance, soil and climate conditions and intensification level of agricultural production in each company. (Ostaev G. et al., 2014) The following factors of the intensification significantly influence production of agricultural products:

- increasing of manufacturing mechanization by renewal of mechanical facilities (field engines, combine harvesters and others), replacement of old facilities with modern and more powerful equipment;
- regular work on land fertility improvement;
- implementation of advanced technologies in plant cultivation and cattle breeding;
- implementation of heavy yielding plants and high yielding breeds;
- achievement of scientific organization of manufacturing and labour, establishment of paid labour in all departments and branches (plant cultivation, cattle breeding and others) of agricultural companies;
- providing of efficient use of all resources (material, labour and financial) in the agricultural companies;

- achievement of reasonable management of agricultural production by means of internal management development and internal control as well.

Internal control is an independent function of management of agricultural production companies (Belobzhetskiy I., 1994). Many economists denote this fact in their works (Lu H. et al., 2011; Alborov R., 2008).

A management entity can take no effective managerial decision without control. Internal control has dual character in agricultural company management system. On the one hand, control is one of managerial activity types (Vasile E. et al., 2008). On the other hand, control is the main element of the whole managerial activity. Control provides audit of products manufacturing budget, achievement of planned products output and quality of the products and gross profit margin.

Generally, internal control in the agricultural production management system may be defined as a system-related activity made by the management entity and intended to identify real condition of production process, reveal the problems in the process and eliminate the problems before their growing into a crisis (Khoruziy L. et al., 2015). In accordance with this

definition, control is an economic activity (work) of administrators, managers, specialists and special departments executing audits, revealing problems, taking the decisions and verifying these decisions by means of direct and indirect links. The Accounting Law binds the companies to execute internal control.

This article is aimed to estimate the current status of internal control in agriculture and reasons of this status and to offer scientific method of executing internal control in agricultural companies.

The tasks of the research were set in order to achieve the aim: 1) to analyse the systems of internal economic control in agricultural companies in the Russian Federation 2) to find the problems and present proposals for improvement of internal economic control in agricultural companies of the Russian Federation.

Availability of scientifically based guidelines, their influence on internal control and managerial functions improvement is denoted by Feng M. et al. (2009).

Research results and discussion

In spite of the above mentioned facts, internal control in the agricultural companies is still established in a poor way and has low level of formal functioning.

A questionnaire survey was made among specialists at different levels of management in 32 agricultural companies in the Russian Federation. There were 5 joint-stock companies, 12 limited liability companies and 15 agricultural production cooperatives. Three specialists in each company, i.e. chief accountant, chief economist and manufacturing department supervisor or farm administrator at cattle breeding farms took part in the survey. The companies were chosen randomly among companies with staff up to 200 persons. The survey was carried out in 2015.

The investigation revealed the following main reasons of poor establishment and execution of internal control in agricultural companies:

- the managers of agricultural companies are not interested in efficient system of internal control of production (20% of respondents);
- special departments for internal control are missing in agricultural companies (15% of respondents);
- audit committees (supervisory boards) work as a public service (25% of respondents);
- agricultural companies do not have sufficiently qualified specialists to develop internal control (10% of respondents);
- old fashioned command management in some companies (15% of respondents). The managers keep command management mode especially in agricultural cooperatives.

The above mentioned results provide the basis for some conclusions and proposals.

Missing interest in efficient system of internal control of production (20% of respondents) from managers' side relates to old fashioned command management (15% of respondents). Privileged opinion of managers in the management system depresses independency of the specialists executing internal control and its results. This results in the absence of appropriate control of the management and developing of the off-the-books economy to some extent, falsifications of figures in products manufacturing and conversions of materials etc. The second and the third reason of poor established internal control in agricultural production (absence of special departments and audit committees working as public service) is also interrelated. These reasons were mentioned by 40% of respondents. The members of audit committees (supervisory boards) are actually elected at common meetings and these committees work as public service and their members get no revenue from this activity. Here is the reason for poor establishment and execution of internal control in agriculture. Taking into account the above mentioned facts, it is offered to establish special departments or offices of internal audit in medium and big

agricultural companies. Internal auditors are expected to have higher education in economics and desirably a certificate of professional accountant or auditor. They should be included into a staffing chart and get appropriate salary (revenue) for their activity.

Execution of these proposals will help eliminate the fourth reason (absence of sufficiently qualified specialists) and gradually settle down economic methods of internal management instead of command management in agricultural companies. However, the transition to economic mode of management needs corporate restructuring and establishing of financial responsibility centres. Self-control, self-administration and self-sufficiency are basic principles for operating of such centres. These centres should also obtain gross profit margin

and net profit margin from plant cultivating and cattle breeding.

As for the last reason of poor establishment of internal control revealed during the survey (absence of clear method of internal control execution given by 15% of respondents), it should be mentioned that currently there are no clear guidelines describing the sequence of actions for internal control execution. In terms of this fact, the Ministry of Agriculture is expected to develop and propose some guidelines or industry standards on execution of internal control (taking into account costs, products output and manufacturing results) to agricultural companies. The authors propose the concept model for development of the guidelines to execute internal control of agricultural production (Table 1).

Table 1

Concept model of internal control development in agricultural organizations

Aim and objectives of internal control in agriculture	Functioning of internal control in agricultural management system	Internal control subsystem			
		Revision of supervision board and control committee	Internal control in organization		Self-control of specialists, managers of own activity, social control at economic level
		The main elements of internal control development			
		Content	Form		
		Development method: principals, assumptions, requirements, scientific techniques, patterns (standards), axioms	Development mechanism: legislative, regulatory, methodological, organizational, normative, administrative, managing, automatized	Links: coordination, subordination, direct and reverse, dynamic and static, horizontal, vertical	Content of elements: object and subject of control, data sources, environment, time, period of realization, linking methods, means of control
Strategic orientation of internal control		Process of internal control development			
Internal control system					

Source: authors' construction

Presented model enables projecting solutions of research and practical problems and arranging internal control in agricultural companies. In this situation, internal control will provide all expected aims and specified functions in order to improve management efficiency in agricultural company and its segment.

However, the role of internal control in the management system of agricultural company is a discussion point. Some authors (Daiyle, A., 2001; Khan, D., 1997) consider that internal control is small part of controlling system. Some functions, belonging to internal control in authors' opinion, should be executed by controlling in fact. Internal

control provides audit of execution of some procedures only.

Some authors (Khasanov, B. 2003) point at negative perception of the word "Control", which is associated with strongman and totalitarianism. One of the aspects of internal control is submission indeed but it is not prevailing. In this article the meaning of control is completely positive and concerns reasonable utilization of limited resources and effective management of agricultural companies.

This concept model (Table 1) may be directly used for execution of internal control of agricultural production, i.e. control of costs, products output, gross profit margin and net profit margin.

However, successful execution of control in accordance with the offered model depends on condition of the management accounting, its methods and accounting system of products manufacturing costs. The control is not applied only to documents, accounting registers, correspondence of accounts and product cost calculations but deviation of actual costs from their specified value, products manufacturing volume deviation, gross profit margin deviation and net profit margin deviations as well. An analysis schedule and factorial models of formulas of control are presented in Table 2. The company Vostochnyi LLC (OOO) is used as an example to describe this method.

Table 2

Control of gross profit margin cost deviation and net profit margin deviation from grain crops manufacturing at Vostochnyi, LLC (OOO) in 2014

No	Factor	Designation	Specified (plan) value, thou. RUB	Actual value, thou. RUB	Deviation (+,-), thou.RUB
1	Gross output (estimated by internal transfer prices)	GO	89045	78067	-10978
2	Variable costs	VC	22848	19791	-3057
3	Semivariable costs	SC	21900	18762	-3138
4	Mixed costs	MC	13421	11811	-1610
5	Gross profit margin	GPM	30876	27703	-3173
6	Fixed costs	FC	18044	20203	+2159
7	Net profit margin (negative profit)	NPM	12832	7500	-5332

Source: authors' calculations

Both gross profit margin and net profit margin have been taken as effective factors. Net profit margin is often referred to as "bottom line" measure. By comparison with gross profit margin, net profit margin includes adjustments, for example, for non-operating expenses such as interest rates and taxes and operating expenses (Boratynska K. et al., 2013).

The data from the control table demonstrate the fact that actual gross output of grain estimated by the internal transfer price was RUB 10 978 thou. less than the specified (planned)

manufacturing volume. It was caused by low crop yield in the fiscal year.

The result is considered satisfactory provided that the variable, semi-variable and mixed costs decrease. Obtained gross profit margin and net profit margin indicate about satisfactory result too. In this company, the result is considered unsatisfactory provided that the level of fixed costs increases in comparison with the specified (planned) value.

Here, the reason for the increase of fixed costs should also be identified. Factorial models of control will be used in order to carry out

detailed control and define quantitative parameters of the gross profit margin deviation. Planned (p) and actual (a) factors will be specified in the following way:

Gross output – GO_p, GO_a ;
 Variable costs – VC_p, VC_a ;
 Semivariable costs – SC_p, SC_a ;
 Mixed costs – MC_p, MC_a ;
 Gross profit margin – GPM_p, GPM_a ;
 Fixed costs – FC_p, FC_a ;
 Net profit margin – NPM_p, NPM_a

Then, the reason for the gross profit margin deviation and profit before tax deviation in case of grain manufacturing will be calculated by formulas.

1. Overall actual gross profit margin deviation from specified value

$$\Delta GPM_a = GPM_a - GPM_p; \quad (1)$$

2. Deviation of actual gross profit margin from specified value by modification of the following factors:

- Gross output:

$$\Delta 1GPM_a = GO_a - VC_p - SC_p - MC_p - GPM_p; \quad (2)$$

- Variable costs:

$$\Delta 2GPM_a = GO_p - VC_a - SC_p - MC_p - GPM_p; \quad (3)$$

- Semivariable costs:

$$\Delta 3GPM_a = GO_p - VC_p - SC_a - MC_p - GPM_p; \quad (4)$$

- Mixed costs:

$$\Delta 4GPM_a = GO_p - VC_p - SC_p - MC_a - GPM_p; \quad (5)$$

3. Check:

$$\Delta GPM_a = \Delta 1GPM_a + \Delta 2GPM_a + \Delta 3GPM_a + \Delta 4GPM_a; \quad (6)$$

The calculation of the gross profit margin deviation at Vostochnyi, LLC (OOO) in 2014 is presented in Table 3.

Gross output, variable costs, semivariable costs and mixed costs influence net profit margin

in similar way. The calculation of net profit margin is presented in Table 4.

Table 3

Gross profit margin deviation

No	Deviation by the reason of:	Designation	Amount, RUB
1	Gross output	$\Delta 1GPM_a$	-10978
2	Variable costs	$\Delta 2GPM_a$	3057
3	Semivariable costs	$\Delta 3GPM_a$	3138
4	Mixed costs	$\Delta 4GPM_a$	1610
5	Total deviation	ΔGPM_a	-3173

Source: authors' calculations

Table 4

Net profit margin deviation

No	Deviation by the reason of:	Designation	Amount, RUB
1	Gross output	$\Delta 1NPM_a$	-10978
2	Variable costs	$\Delta 2NPM_a$	3057
3	Semivariable costs	$\Delta 3NPM_a$	3138
4	Mixed costs	$\Delta 4NPM_a$	1610
5	Fixed costs	$\Delta 5NPM_a$	-2159
6	Total deviation	ΔNPM_a	-5332

Source: authors' calculations

This method of control helps to make managerial decisions to adjust plans (budgets) with regard to specified (planned) manufacturing volumes in order to obtain profitability of the products. The method is quite easy and may be implemented in any agricultural company.

Conclusions, proposals, recommendations

From the review of used literature it is evident that some investigation has been devoted to this subject. A management entity can take no effective managerial decision without control. For this reason development and improvement of internal control should be done in ongoing manner.

As mentioned previously, the objective of this discussion was to estimate modern condition of internal control in agricultural companies of the

Russian Federation and to develop a method to improve it.

According of the aims of this article, the current state of internal control was estimated in 32 agricultural companies of the Russian Federation. Some problems and their causes were indicated in the article. The survey conducted in 32 agricultural companies provides adequate image of internal control in all agricultural companies in the Russian Federation.

1) The main result of the survey is that the state of internal control in agriculture of the Russian Federation is not satisfactory. Internal control exists formally in accordance with the legislation. The reasons of poor establishment are as follows:

- managers are not interested in the internal control as they implement old fashioned command principals of management;
- poor operation of audit committees is caused by the public mode of their service;
- number of qualified specialists is not sufficient;
- absence of guidelines for internal control execution;

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2) One of proposed solutions of internal control improvement is a factorial method production costs control in plant cultivating and cattle breeding. The method is relatively simple and can be used in any agricultural company to adjust plans (budgets) with regard to specified (planned) manufacturing volumes.

It might be concluded that Russian agricultural companies have good potential for establishing a well-organized internal control system. Advanced experience of European countries can be used to establish internal control at agricultural companies of the Russian Federation.

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