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**USE OF ANALYTICAL PROCEDURES BY INTERNAL CONTROL  
SYSTEM IN CONSTRUCTION**

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*Abstract*

The most important procedure of the system of internal control in the construction branch is the accounting of expenses and the income at the corresponding stages of the performed works (business cycles). To check the compliance of production of construction works to the project, permanent internal control at all stages (cycles) of construction production. Accounting on cycles allows to reveal indicators, separate segments and management in a result of construction production. Therefore, the part of indicators is formed for application of adopted administrative decisions at the level of separate divisions, and the other part – by the management of the entire construction organization, which allows accounting information to be distributed by business cycles for adoption of the relevant administrative decisions. Control procedures must be performed at all levels of the organization and in all business centers. Control procedures shall include: approval, authorization and reconciliation of transactions, activities efficiency analysis, safety of assets and distribution of obligations. Control actions shall be directed to achievement of specific purposes of information processing, such as, ensuring completeness and accuracy of information processing. It should be noted that information created for internal control shall be sufficient, but not excessive. The redundant information not only requires funds for its forming, but also slows down process of forming information necessary for preparation, reasons and decision making. The result, which is main from the viewpoint of creation of an effective internal control system, is achievement of information transparency of the main business centres.

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**Keywords:** Internal control; management; business process; control procedure; administrative decision.



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## 1. Introduction

The monitoring system of construction quality and observance of construction regulations includes two configurations: system of internal (production) control and system of independent control. The system of independent (external) control acts in Russia on the fixed basis, and the internal control system only begins to gain steam.

For check of compliance to the project of production of construction works constant internal control at all stages of construction production will be organized.

In a number of the construction organizations control on stages (business cycles) of the finished works practices:

Preparation of the territory for construction works;

Zero stage;

Construction of an elevated part;

Installation of the engineering equipment;

Finishing works;

Improvement of the territory.

Internal control is carried out by the personnel of those organizations, which make the construction production (civil-and-erection organisations, design and survey organisations, the enterprises of building industry). Internal control is a function of administrative and technical personnel of a civil engineering firm.

Analytical procedures allow eliciting the facts of unauthenticated reporting, estimating a financial condition of the organization, revealing internal reserves of the economic subject (Sokolov, 2006).

With their help allowances of growth of efficiency of construction production come to light. Control procedures shall form scientific base for planning and accomplishment of indicators of a budgeting system in a construction.

Nowadays application of the system analytical work in the construction organizations is more likely an exception than a rule.

Activities of the company depend on the purposes, attitudes and tasks which provide a stable financial, economic and legal status, as well as consolidate a stable position among competitors in the market. To gain a necessary market share in the conditions of tough competition, there is a need to ensure economic safety of the entity.

The economic safety is the system organized at the enterprise for the purpose of increasing its cost efficiency and reducing risk of unauthorized use of production resources, both now and in the long term.

For ensuring a high level of economic safety of the organization, an internal control system for implementation of financial and economic activities through it should be created. Internal control is an important component of economic safety of the entity; by means of it the entity strengthens management control measures, which promotes successful performance of the organization.

At the moment, there are no accurately developed techniques and concepts of the correct organization of internal control service at the enterprise in the economic safety system.

The basis of functional components of enterprise's economic safety realised through the internal control system includes:

- informational;
- preventive;
- mobilizing;
- educational.

Let us consider the functions which are performed by the internal control service within economic safety of the enterprise.

An information function is performed by means of information obtained owing to internal control, decisions within managerial supervision are made, which increases efficiency of enterprise functioning.

A preventive function is realised by means of control at the enterprise; abuses, plunders, violations of regulations and rules become known, and owing to this function prevention and non-admission of such circumstances in the future are performed.

A mobilizing function obliges the staff of the enterprise to follow rules and to fulfil their obligations, as well as provides rational and target use of resources in the organization.

An educational function is aimed to develop compliance with law, regulations and rules in employees of the organization, as well as to fulfil responsibly their duties, and to appeal to enterprise administration to ensure effective management.

Internal control can be carried out at different levels of the enterprise. The purpose of internal control is to distinguish the factors which affect negatively the activities of the enterprise in different fields and business-processes.

Tasks of internal control are as follows:

1. establishment and fixing the legality, law and order in the organization
2. protection and guarantee of preserving money, property, assets of the enterprise;
3. control over target and rational use of means;
4. development of measures for increasing production efficiency;
5. determination of ways of enhancing the work of the economic actor.

The internal control system will allow to stop all facts of abuse and fraud or to fight against them effectively. The department of economic safety shall be the centre in the internal control system.

When forming the control system, it is necessary to consider the following:

1. In this system, the whole chain of subdivisions and services must be oriented to the head or the owner of the organization, that is, availability of united management is obligatory.
2. Continuous enhancement of control and safety is necessary.
3. So that the control service was effective, it is necessary to carry out the analysis of enterprise activities for identification of strengths and weaknesses.
4. Apparently, as practice shows, one more element of efficiency and effectiveness of control is staff rotation.
5. It is necessary to remember that control is necessary for both large and small enterprises.
6. Establishment of internal control service plays an important role not only in overall performance of the organization, but also in the system of economic safety.

Stages of implementation of internal control can be as follows:

1. Determination of control orientation.

2. Description of business processes.
3. Risks assessment.
4. Testing of control quality.

Let us dwell upon the listed stages.

The introduction of internal control is reasonable to begin with determination of divisions and services, which require control. If the internal control system is implemented in all divisions and departments of the enterprise, it can lead to the fact that implementation of this project will entail considerable costs which will be impossible to recompense.

To manage the maximum quantity of risks of the enterprise, control shall cover activities of all employees, irrespective of their position and the works performed by them.

After control delimitation, it is necessary to determine the working schedule (schedule) and an employee group which will develop control methods. An employee group can include: an auditor, an expert in risks assessment, to which division managers will direct control processes.

For a reduction of the composition of business plans, it is necessary to determine key accounts. The main accounts are financial accounting and managerial accounts, incorrect information which can affect the decision of potential investors or mislead the company management. Also they can be represented by business accounts, by which the turnover constitutes 10% in relation to revenue.

## **2. Problem Statement**

The organization of internal control of expenses in real estate development companies depends on high-quality accounting information. The existing scheme of preparation and systematization of cost information in construction production goes by requirements imposed to quality of expense information that is shown by results of the conducted research. Are the reasons: handling of the same data at various levels of management, availability of discrepancies in the same indicators, limitation and incomparability of the indicators created by various **services** (Timotina, 2014). Hence, it is possible to conclude that there is a lack of a uniform approach to the content of requirements for information, definition of its list, as well as for the composition of its indicators. When creating the internal control system, optimization of the whole system of registration streams and document flow in the organization is necessary. The point is that all information, necessary for control, was prepared with a necessary degree of accuracy and supplied to users in due time (Slabinskaya, Tkachenko, 2013).

## **3. Research Questions**

When forming accounting information for cost control in construction production, the detailed cost accounting shall be organized by business cycles and work types. Forming of information on business cycles will allow to provide transparency of cost information, and, therefore, effective control.

Analyzing the structure of prime cost of a construction object, there is a possibility to identify the made mistake, unreasonable overestimate of costs on production by certain calculation heads of expenditures, as well as deviations from the budgetary indicators (Slabinskiy, 2012).

Deviations by calculation heads of expenditures can be both positive and negative (Slabinskiy, 2013).

The analysis of structure of cost value of a construction object gives the chance to reveal unreasonable overestimate of production costs and a deviation from estimate indicators.

Analytical procedures of internal control of cost value of an object should be performed on factors which influence deviations of a real indicator from estimate. The analysis of indicators of estimate articles is important for a construction. Contractors can change methods of reproduction of construction works and apply other materials and also apply technical solutions without decrease in operational qualities of an object. All these circumstances allow to increase a financial result

contractor. The procedure of a reconciliation with partners is also a task of an internal control system. The reconciliation statement allowing to estimate reality of receivables and payables is result of such procedures.

The efficient actual procedure of internal control is application of a technique of control measurements. Carrying out control measurements shall be performed on a fixed basis. Also the principle of suddenness is allowed. Especially it is necessary to pay attention to those business cycles where the over-expenditure of estimate articles is fixed.

By means of control measurements it is possible to find the following types of violations:

1. Actual failure to carry out of the detailed design.
2. Performance of works in amount smaller, than it is specified in the estimate.
3. Double payment of installation works.
4. Use of the cheap materials reducing quality of an object (Grosbeaks, 2004).

#### **4. Purpose of the Study**

The purpose of the internal control system is timely prevention of irrational or wrong actions, as well as mistakes in case of information processing of the economic actor.

In this situation, it is necessary to pay attention to the next moments:

1) the internal control system shall be developed and function strictly within the approved organizational structure and within the functions which are carried out by divisions;

2) in case of development of the control strategy, it is necessary to take into account that control is substantially limited to physiological opportunities of a human body and opportunities of the information infrastructure of the economic actor;

3) inadequate increase in the amount of controlled parameters leads to loss of control over strategically important objects of control, such as a marketing strategy, a strategy of borrowings, restructurings, development of the information infrastructure;

4) parameters controlled by a business centre shall correspond to criteria of materiality, acceptable for such centre of responsibility. Criteria of materiality shall be used by analysts of the economic actor in practical activities for restriction of the number of controlled parameters.

The function of internal control can be realized in several ways and the most effective of which is creation of a separate division in the form of a department or service.

At the same time, the external consultant or specialized firm, on condition that no conflict of internal and external interests is allowed, can perform the function of internal control.

It is possible to identify three main approaches to creation of the internal control function:

- creation of one's own service of internal control, but only in case the economic actor possesses necessary financial resources;
- outsourcing - accomplishment of the internal control function is completely transferred to a specialized firm (external consultant);
- the co-sourcing - the internal control system is created within the economic entity; the experts of the specialized firm (external consultants), having the corresponding knowledge, experience, qualification, are also involved in task performance.

The specified approaches can be applied in economic entities in various combinations and variations.

In case of the choice from possible options, it is necessary to estimate benefits and shortcomings of each of them.

The organization, the purposes and functions of internal control are determined by the management and (or) the owner of the economic entity depending on a business form and the developed management system, content, specifics and scales of activities, a condition of internal control and amounts of financial and economic activities.

Forming the service (department) of internal control should be started with matching of the candidate for the head of service. The best option is the situation when the head of internal control functionally is subordinate to the board of directors, and is administrative - to the CEO of the organization. If in the economic actor there are no board of directors or similar body, service of internal control it is necessary to subordinate both is functional, and administratively - to the management official of the organization. In an ideal situation, the service of internal control reports to the top management and is exempted from other managerial accountability.

The activities of service of internal control should be regulated by internal regulating documents:

- Provision on organisation of internal control (determines the mission, the purposes and tasks, responsibility and powers).
- A management of service of internal control (contains questions of the organization of of service work and interaction with other divisions).
- Intra-corporate standards (contain standard forms and techniques of conducting checks and other tasks).
- Job descriptions of staff of service of internal control.

If the company is advanced in questions of internal control and is guided by the recommendations of international standards of internal audit, the separate document, it is possible to publish the Evaluation procedure of quality and efficiency of activities of internal control.

The number of service of internal control shall depend on objectives, a condition of the control environment and a degree of exposure of any organization to risks. The number is determined, first of all, proceeding from the number of the divisions and business processes, which are available in the economic entity, and time expenditure on control and audit of each of them.

The effectiveness of activities of internal control is determined by the following criteria:

1) the specific status of service of internal control in the structure of the economic entity and influence of this status on a capability of such service to be objective. In an ideal situation, the service of internal control reports to the top management and is exempted from other managerial accountability. In practice, most often the service of internal control is accountable to the president, the general or finance director and only in rare instances - to the board of directors;

2) amount of functions, which is imposed on service of internal control. An obligation to create the scheduled plan of the checks, determination of structure checking, preparation of an audit opinion, reports including about the done work, creation of methodical materials, holding explanatory seminars are assigned to the head of internal control. The specific list of obligations, the status, the structure of service and other features are established by independently elaborated provision about service of internal control of the organization;

3) professional competence. Internal controllers shall have the corresponding education, skills and experience. If the service of internal control includes a set of divisions, then in it, as a rule, there are economists, lawyers, accountants if it is caused by specifics of activities of the economic entity, then experts and specialists in various areas are appraisers, engineers, geologists, logisticians, programmers;

4) due professional conscientiousness (whether internal control, controlled and arranged documentary are planned in a proper way; whether adequate auditor benefits, working programs and working documents are available).

In the economic entity, the choice of a form of internal control depends on complexity of an organizational structure, a legal form, types and scales of activities, feasibility of a scope control of various aspects of activity, the management relations to control and a solvency.

Let us determine a number of the actions providing efficiency of internal control from line items of its separate elements. First of all, there is influence of the control environment on quality of internal control. It reflects operating conditions of devices of internal control. It is determined as internal factors (an organizational structure, extent of formalization of procedures, managerial philosophy of management, resource base) and external factors. A high-quality level of formalization of activities of the economic entity is necessary for effective work of internal control. Formalization of activities begins with approval of an organizational structure of the economic entity.

The next component of the control environment is the document regulating activities of divisions of certain specialists, namely, standards and regulations.

The quality excellence of control is performed also by the analysis of actions of management of the economic entity for the purpose of establishment and maintenance of internal control. It should be noted that internal control is an important component of the management process. The efficiency of activities of the head in this direction is caused by that factor, how deeply the head feels the control process and to what degree his subordinates own technologies of control, what is the priority in the economic entity, what are the tasks connected with statement and functioning of internal control. Any component of internal control, eventually, is a consequence of vision of the head of the economic entity of features of management system creation.

## **5. Research Methods**

Within activities of the economic entity, all types of control directed to prevention of a fraud risk, and having at least the minimum probability of significant effect on activities shall be estimated. The effective program of prevention of a fraud includes the following key components: The code of behavior, the hot line for employees who witnessed frauds, investigation and taking measures in case of detection of the facts of a fraud, the supervision are exercised by service of internal control and the Board of directors. One more component of internal control is the risks assessment. So that the economic entity could exercise effective control, one shall set goals and also identify risks which can influence goal achievement. The highest management of the economic entity shall consider all consequences of the corresponding risks which could prevent goal achievement and create a risk management basis.

The process of determination and risk analysis is continuous. Basic elements are risks assessments: assessment of business risks, risk analysis, change management, inherent risks, risks of illegal acts.

The management of the organization can apply a combination of the following procedures to risks:

1) carrying out internal control of annual risks assessment by service, evaluating risks at the level of business centre in the form of independent assessment;

2) appointment of one of upper managers responsible for carrying out an independent risks assessment;

3) carrying out internal control of assessment work of risks by service;

4) holding regular meetings of upper managers for discussion of key business risks.

Control procedures shall be performed at all levels of the organization and in all business centres. Control actions shall include: approval, authorization and reconciliation of transactions, activities efficiency analysis, safety of assets and distribution of obligations.

Control actions shall be directed to achievement of specific purposes of information processing, such as, ensuring completeness and accuracy of information processing.

The "Information and Networks (Communication)" component of internal control includes systems which promote identification, collection and exchange of information in a form and in the period of time, the duties allowing personnel to fulfil properly. The Information and Networks component shall penetrate all other components of internal control therefore the methods providing and dissemination of information shall be developed. It should be noted that information created for internal control shall be sufficient, but not excessive. The redundant information not only requires funds for its forming, but also slows down process of forming of information necessary for preparation, reasons and decision making. The result, main from the point of view of creation of an effective internal control system, is achievement of information transparency of the main business centres.

For a quality evaluation of functioning of the control system throughout a certain period of time it is necessary to carry out by the economic actor monitoring. Therefore it is reasonable to allocate in the course of monitoring three components:

1) continuous monitoring;

2) periodic monitoring;

3) instant monitoring (the message on the found shortcomings).



By analysis of results, suggestions for improvement of management processes are developed that is reflected in a packet of intra-corporate standards. The main idea is that it is impossible to allow monopolizations of information by one division or business center. Therefore monitoring by several business centers from different line items is useful.

Therefore one of offers of an effective internal control system is that the entity needs to appoint access for persons to information carriers. Tests which are carried out for confirmation of reliability of accounting records shall cover directly all fields of activity of the entity, but not one activity.

With growth allowances adjusted by processes of supply and sale it is reasonable to the large organizations of corporate type having rather steady organizational and financial structure to pass step by step to new high-quality program technologies, including full-function, implemented on the basis of a common information space.

It will allow one:

- 1) to fix problems of inconsistency of loading of capacities and customer orders;
- 2) to increase performance of control activities of workers;
- 3) to provide control mode with the organization in real time;
- 4) to provide the effective and approved interaction between divisions excluding duplication of information.

Increase in effectiveness of internal control of the economic actor can be provided for the account:

- 1) Reliability and speed of receipt of information on changes of conditions of external and internal environment (reliable communication channels and stores of information).
- 2) Operational regulation and functioning of internal control that can be provided as a result of creation of special structural division of control.
- 3) High level of professional readiness of workers, from readiness to switch from one work type to another.
- 4) Fast reorientation of control methods.

## **6. Findings**

Considering features of construction production (immovability of products, the long period of production) when forming an effective internal control system of real estate development company the result of the implemented system shall provide:

1. Reliable information necessary for mobile and successful management;
2. Safety of assets and information, prevention of plunder, destruction, spoil and inappropriate use of material values;
3. Taxation optimization;
4. Observance of estimate and project regulations;
5. Quality assurance of accomplishment of installation and construction works;
6. Formation actual price of a construction object;
7. Providing reliable system of financial accounting..

## 7. Conclusion

The internal control system of real estate development company acts as a basic element of management. What internal control on a construction object, that high quality of the performed works is more effectively organized..

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