



Development of Controlling in Postindustrial Economy: Tools and Techniques

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ABSTRACT

This article highlights the development of controlling in a historical retrospective. The periodization of controlling allocates two basic steps: (1) Accounting primitiveness (the priority control function of accounting, primary documents are financial statements); (2) accounting differentiation (emergence of double-entry accounting, complexity of the methodology, the emergence of information function and the science of accounting). The attention is paid to a contribution of national accounting schools (Italian, French, German, Anglo-American, Russian) to the formation and development of controlling. The main instruments of expeditious and strategic controlling are considered. Tools are considered in a section of management accounting and the administrative analysis. The attention is also paid to the indicator systems within the controlling. At application of not projective method, there is a search of the necessary decision thanks to overcoming the psychological inertia consisting in aspiration to solve a problem in the traditional way.

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1. INTRODUCTION

Controlling in its present state (in particular as set of methods of strategic and expeditious management, the account, planning, the analysis and control) is a product of the XX century. At the same time, development of controlling was carried out within the general evolution of accounting thought tracking its development proves difficult for a number of reasons:

- Controlling was isolated as separate discipline and the direction of accounting activity only in the XX century in connection with complication of economic realities and search of new instruments of management; in this regard till this period it is possible to speak only about development of separate instruments of controlling;
- The available data of last eras don't reflect real development of accounting methods due to the loss of considerable number of material carriers, and also complexity (bias) of interpretations;
- It is simpler to track development of a control component of

the controlling itself (though it is obvious that these concepts aren't synonymous).

2. MAIN PART

The control aspect of the account was shown during the millennia, especially in public sector (Ancient Egypt, Mesopotamia, Ancient Greece, Ancient Rome, the Late Middle Ages, Russia during the pre-Peter period).

For example, by considering the evolution of the accounting methods in the field of public finances the priority of control function becomes obvious. In particular, we will consider procedure of management of public finances of Ancient Greece.

According to laws of Athens, a receiving and delivery of money from the state treasury was the duty of a naukrariy (modern the state cashiers), and all the reporting on income and expenses of the state treasury was polets job (they have kept special books

for recording the sums to be collected from tenants of the state property).

On the basis of records in books or in cards polets made special lists of urgent payments and transferred them to Council of Five Hundred on the eve of payments' date. After the check, these lists were transferred to apodeka – special officials who were agents collecting the money for the state and transferring them to naukrariyas after the collection.

For checking the production correctness of the performed operations Council of Five Hundred has chosen ten logisticians, who had the control over all council operations by means of maintaining the special books:

- Cash-books – The accounting of cash operations of Council of Five Hundred;
- Books monitoring the income and supposed payments.

Logisticians have checked the reporting of all government officials and given the conclusion on the substance of the operations shown in reports. Based on calculating records about state revenues and expenses the general, the report on monetary operations of the state was periodically formed (it has been cut on a stone).

Control function of the account has been shown in establishment of the controllers positions. For example, in the period of the late Middle Ages (the XIV-XVI centuries) during the compelled stay of Popes in Avignon (1309-1377) at the papal yard was founded the very position of the controller (rationalis). Preliminary verification of all income and expenses of the papal yard has been their duty (the papal bull of 1344 established that the controller was to check and approves of all accounts and reports).

Importance of control function was expressed in names of posts and in later time. For example, in France at Louis the XIV's rule there was a position of the general controller of finance which was held by Jacques Baptiste Colbert (pursuing mercantilism policy). For reviving of the trade Colbert has developed and issued the new trade charter which carried Ordonnans's name or the Code of 1673, creation of which was strongly affected by G. Savary.

In Russia, control function of the account has also been shown in the field of financial control according to all income and expenses of the state. So, for example, in 1654 (according to other data – in 1656) the Order of Calculating affairs was created – the department of the state control, which was to check the correctness of maintaining the accounts books by departments and for their instructing concerning bookkeeping. The order has checked accounts books of other departments. It also has summoned the tselovalnik's (the officials of the Moscow Russia who were chosen from zemshchina in districts and on the posadakh for execution of judicial, financial and police duties) from the cities of with their income/spends books for the check. If there were available funds in any department, the Order of Calculating Affairs withdrew them in favor of the state budget.

Controlling in its modern interpretation had began to be used in the USA since the end of the XIX century. In 1880, the position

of the controller was created in the Atchison railway company, then Topeka and-Santa Fe rail road, and in 1892 – in the General Electric. The main cause for introducing the controlling was the need of overcoming the crisis phenomena for the American economy, in particular, of consequences of a great depression (the twentieth - the thirtieth years of the XX century).

Carrying out a periodization of controlling development it is possible to allocate two main stages:

- Accounting primitivism – The priority of control function of the account, primary documents were reporting forms;
- Accounting differentiation – The emergence of double record, complication of accounting methodology, emergence of information function, emergence of accounting).

At a stage of accounting primitivism control devices were:

- Inventory – For ascertaining of a real situation;
- Documentation – For written justification of the occurring events.

Accounting primitivism passed three stages in the development:

- The inventory account with elements of the calculations accounting – fixing the remains of material values, debts and their repayment;
- The credit and debit account with elements of the calculations accounting – discrete inventory is transformed to the current (permanent) account that demanded daily removal of the remains;
- The combined account assumed use of money as goods; the account in monetary means is torn off from the account in physical means of measurement.

The second stage of development of accounting assumed the accounting differentiation of the following types:

- The methodological;
- The conceptual;
- The structural;
- The integration.

The methodological type consists of application within the unigraphic and digraphic accounting of single entry, cameral and patrimonial bookkeeping.

The unigraphic account – is transformation of the economic life fact into the information fact by means of broad use of natural measuring instruments, i.e., accounting of operations in accounting system in those means of measure in which they were carried out. At a late stage of the development, it was distinguished from the digraphic account only by absence of the of the capital (owner) account. The tools of the unigraphic account were expressed in techniques of single entry bookkeeping.

The digraphic account – is based on a duality of economic processes that assumed allocation of the owner's account and application of three basic method elements: Balance, accounts, double record.

The subject of cameral accounts department should be considered the accounting of the movement of monetary receipts and

payments (i.e., the accounting of cash operations), the accounting of the allocations allocated with the owner with control of their performance (formation of estimates).

The patrimonial accounts department as its subject considered the accounting of property and results of its use.

Further accounting differentiation is connected to emergence of schetovedenie (the keeping counts) – the science about the account that is expressed in conceptual differentiation, i.e. in allocation:

1. Directions of the account:
 - a. The legal – The emphasis is placed on the accounting of the relations arising in connection with the movement and storage of values, the subject of the account should be considered calculations of the owner with agents and correspondents;
 - b. The economic – Object of the value accounting, and a subject of the account – the capital of the enterprise;
 - c. The balance – Balance the central accounting category defining all other categories; double record was a mathematical consequence of balance;
2. National schools of accounting.

The ratio of the accounting directions and national schools of accounting is reflected in Table 1.

The significant contribution to formation of controlling was made by development of the German and, especially, Anglo-American school.

Structural differentiation consists in formation of different types of the account:

- Tax accounting – For achievement of the fiscal purposes;
- The statistical account – For generalizations of processes and the phenomena at the macro-level;
- Accounting (the accounting financial account focused on satisfaction of information needs of external users of accounting information);
- Management accounting and controlling – Adoption of administrative decisions by internal users of accounting information.

Integration differentiation reflects the integration processes in world economy providing unification of accounting positions for simplification of economic subjects' interaction from various countries.

In this regard, it is possible to allocate various options of the relations between systems of national standards and International Financial Reporting Standards or Generally Accepted Accounting Principles.

Generalizing tendencies of accounting methods' development in general, and controlling in particular, it is possible to draw a conclusion on complication of accounting techniques and theoretical concepts. It should be noted that controlling in its true understanding evolved throughout many centuries within

accounting and administrative processes. As independent subsystem promoted its emergence:

- Shift of emphasis from control function on the information;
- Complication of economic realities;
- Emergence of complex sciences about management;
- Need of coordination of various information streams, both within the economic subject, and in environment;
- Other factors.

At the review of economic literature, it is possible to note plurality of concept interpretations of a controlling method. According to Kovalyov, the method represents a way of achieving the purpose of controlling and consists of a set of methods of theoretical and practical knowledge on object of controlling. From the practical point of view, methods of controlling find the expression in total of the concrete tools allowing the practical realization of the controlling purpose.

It should be noted a considerable variety of instruments of controlling. Most of the authors who are engaged in the specified perspective have a consensus that instruments of controlling share on instruments of strategic and expeditious controlling. This requirement obviously follows from purpose of these types of controlling (strategic controlling is aimed at creation of competitive advantage, and quick – at its deduction). Nevertheless, the structure of instruments of expeditious and strategic controlling differs depending on opinion of the specific author.

In economic literature, we also see other division of methods of controlling. In particular, division of methods depending on extent of formalization of possible dependences: Unformalized methods (expert estimates, scenarios, creation of systems of indicators, etc.); formalized (the macro - and the microeconomic analysis, statistical methods, etc.).

Falko allocates such basic tools as account, planning and budgeting, analysis of deviations, system of indicators, reporting, and investment calculations.

Despite existence of distinctions in interpretations, instruments of controlling have to meet the basic requirement: To provide performance of functions of controlling. In our opinion, it is expedient to differentiate instruments of controlling besides division into instruments of strategic and expeditious controlling into two groups of tools: Administrative analysis and management accounting (Botín and Vergara, 2015).

Table 1: Accounting directions and national schools of accounting

National school	Direction of the account		
	The legal	The economic	The balance
The Italian	Tuscan school Lombardsky school	Venetian school	
The French	+	+	
The German		+	+
The Anglo-American	Personalized school	Institutionalistic school	
Russian	+	+	+

Thus, we receive the matrix reflecting the main methodical methods of controlling. It should be noted that division of tools for expeditious and strategic controlling in a certain degree is conditional, since the number of them can be successfully used for the realization of both tactical and strategic objectives.

We will examine some instruments of controlling in more detail. According to Oykhmann and Popov, reengineering of business processes represents a method of cardinal reorganization of business processes of the organization for achievement qualitatively of other, higher level of indicators of production economic activity of the organization.

Thus, increase of efficiency of activity by means of reengineering can be followed by destruction of traditional organizational structure, replacement of the available processes and, therefore, transformation of information streams. Reengineering is inseparably linked with the system analysis.

The system analysis – A complex of the researches directed on identification of the general tendencies and factors of development of the organization and elaboration of actions for improvement of a control system and all production economic activity of the organization (Sigidov, 2011; Sokolov, 1996; Sigidov and Ribiantzeva, 2015; Karepova et al., 2015).

It is necessary to consider that controlling is not a static structure. Adequate redistribution of the tasks connected to processes of planning, control and information support, i.e., reengineering of system of controlling is necessary. Thus, this process inevitably includes also increase of a role of self-controlling, development of the controlling culture and restructuring of department of controlling.

The important methodical reception used in controlling is the portfolio analysis. The share of the market, production portfolio, a portfolio of clients, and a portfolio of activities is called as a portfolio of the company. The portfolio analysis allows: To reveal stages of life cycle and profitability of separate grocery groups; to predict need of development of new products and volumes of necessary financial resources.

Controlling can also use a matrix of the Boston consulting group, which allows defining a strategic position of the enterprise by division of all activities into four groups: “Star,” “milk cow,” “dog” and “a wild cat.” Each group requires its own strategy (Batalov, 2011; Galang, 1927; Ivashkevich, 2011, Accounting history: studies, //www.znaniy.com).

The strategic position of the enterprise defines strengths and weaknesses of the organization in the external and internal environment. For clarification of opportunities of the organization and the list of threats, it is necessary to use such instrument of controlling as strengths, weaknesses, opportunities, and threats (SWOT) - analysis.

After carrying out SWOT-analysis for the deeper study of the internal environment of the organization the strengthening, neutral

and weakening (SNW) - analysis is used to analyze strengths, neutral factors and weaknesses of the organization.

When studying strength and weaknesses of the organization it isn't necessary to neglect such marketing tools, as:

1. PEST - Analysis (sometimes designate as STEP) – the tool intended for identification of political, economic, social and technological aspects of environment which influence business of the company. The analysis is made according to the scheme “factor-the enterprise”. The received results are formed into a matrix;
2. PESTLE - Analyses (the version of PEST analysis expanded with two factors – legal and environment). Also other formats, for example, of SLEPT-analysis (plus a legal factor) or STEEPLE-analysis are sometimes applied: Social and demographic, technological, economic, environment (natural), political, legal and ethnic factors. Also the geographical factor can be considered;
3. The analysis of five forces of Porter – The technique for the analysis of branches and elaboration of strategy of business developed by Michael Porter. Five forces of Porter include: Analysis of threat of emergence of products substitutes; analysis of threat of appearance of new competitors; analysis of the market power of suppliers; analysis of the market power of consumers; analysis of level of competitive fight.

The assessment of the strengths and weaknesses of the enterprise in comparison with competitors and definition on this basis of market niches captures the essence of such tool as “benchmarking.” It can be understood, as the comparative analysis of efficiency of the enterprises on the basis of the interconnected indicators.

According to Voloshin's developments, problems of “benchmarking” are in the following:

- Establishment of competitive position of the enterprise and definition of its rather weak parties;
- Accumulation the ideas of achieving large breaks in production implementation;
- Definition “the best in own way” examples from practice;
- Development of creative and innovative approaches to reconstruction of business processes;
- Development of new techniques of improvement of quality, level of service and production efficiency;
- Assistance to changes in culture of business management and in social and psychological climate in collective.

Modern systems and methods of the analysis of expenses in the commercial organizations, in particulars, include:

1. The analysis of a ratio of quantity and quality of production – definition of interrelation of these concepts i.e., at what improvement of properties of production the satisfaction of the same requirements is reached by its smaller quantity;
2. The analysis of competitiveness of production (works, services) – i.e., degrees of its superiority, from the point of view of consumers, over other goods of similar appointment;
3. Functional and cost analysis;

Functional and cost analysis is the system research providing detection, the prevention, reduction or elimination of excessive expenses when performing various processes and procedures, including organizational.

Functional and cost analysis:

- Distributes overhead costs according to the detailed miscalculation of use of resources;
- Improves cost indexes;
- Allows receiving the bigger volume of information for development and decision-making;
- Structures business processes; reflects long-term variable expenses (Cabanillas et al., 2015; Osadchy and Akhmetshin, 2015; Vasilev and Akhmetshin, 2014).

In the functional and cost analysis, it is expedient to use Eisenhower's principle – the principle of AVS – i.e., to divide functions of the analyzed object on degree of their importance.

4. A technique of the cost-volume-profit analysis based on the categories applied in system a direct costing (the marginal income, a profitability point, etc.);
5. A technique of the strategic analysis of expenses (strategic cost analysis) – formation of a cost-making chain (i.e., sequences of operations on value creation of a product) at which really received prime cost doesn't exceed the target.
6. The analysis of product's life cycle (life-cycle cost) – the concept of life cycle expenses management (i.e., estimation of cost of a product from design before removal from production).

One of the most effective mechanisms of expeditious controlling in the sphere of management of inventory items of the organization is ABC analysis and the XYZ analysis.

ABC analysis can be applied when structuring resources in size of cost and degree of importance to achievement of problems of economic subject, and can be used as the general approach to pointing out the most essential and the problems demanding the maximum attention of the top management (i.e., definition of priorities). In the sphere of material supplies, XYZ analysis techniques are used. In the simplified look, application of a method allows to allocate three groups of the materials ranged on degree of a regularity of their application. For determination of the values, entering into each group calculation of coefficient of a variation can be used. The greatest effect gives simultaneous application of AVS-and the XYZ analysis.

The most important instrument of controlling should be considered the systems and methods of the accounting of expenses and calculation of product cost (works, servants). Advantages of the main systems are specified in Table 2.

We will highlight some systems of the accounting of expenses and calculations of prime cost of production (works, services).

Elements of standard-cost system were introduced in the Soviet account after the international congress of accountants in

New York in 1929 on which the Soviet delegation presented. Within the Soviet economic realities the cut-down system received the name of a standard method (the main supporter of this way should be considered Zhebrak). In addition, in 1934 the First All-union Conference on the standard account took place.

Thus, the standard method is focused on requirements of a planned economy. A number of its features significantly reduces its information value in the conditions of market economy. In particular:

- It isn't applied to an assessment of stocks of inventory items, a work in progress and finished goods in a warehouse;
- Only the account "Production" on which the sum of deviations of the actual production cost of the actual release from its cost at the accounting prices comes to light can be applied;
- Only four types of deviations on production expenses pay off.

The following system of the accounting of expenses – "direct-costing" – from the point of view of controlling is of interest, as it contains the possibility of the solution of such expenses management problems as:

- Definition of the lower bound of the price of production or order;
- Comparative analysis of profitability of different types of production;
- Definition of the optimum program of release and product sales;
- A choice between own production or services and their purchase on the party (outsourcing);
- A choice optimum, from the economic point of view, the production technology;
- A choice of the assortment program in the conditions of the limiting factor;
- Definition of a point of profitability and stock of financial durability of the enterprise, etc.

The modern direct costing has some options. In particular, Kerimov points to two main ones:

- The simple direct-costing based on use in the accounting of data only on variable (operational) expenses;
- Developed a direct-costing (veribl-costing) at which prime cost along with variable expenses also joins direct constant costs of production and product sales.

One of the most interesting instruments of the management accounting used by expeditious controlling is the target-costing system, which assumes decrease in costs of product design stages. i.e., A target-costing – The complete concept of management supporting strategy of decrease in expenses and realizing function of planning of production of new products, control of expenses and calculation of target prime cost according to market conditions.

A bit different definition of system is given by Shigayev: "Target calculation (target-costing) is a structural approach to determination of prime cost at which production and sale of some product with the set functionality and quality will provide desirable profit level at estimated sale price". Traditional

Table 2: Advantages of the main systems of the accounting of expenses and calculation product cost (works, services)

Method	Advantages
System of standard-cost (standard method)	Control of expenses by drawing up standard (standard) accounting and comparison of the actual values of expenses to standard (standard) Identification and the analysis of places, reasons and responsible for deviations of the actual expenses from standard (standard) Initiation of efficient measures in the course of production, and not just at the end of the reporting period Universality of system gives the chance of a combination to any method of the accounting of expenses and calculation of prime cost, etc.
Direct-costing system	Possibility of the solution of such problems of management of expenses, as: Definition of the lower bound of the price of production or order; Comparative analysis of profitability of different types of production, etc. Simplification of calculation of product cost and possibility of comparison of prime cost of various periods on variable expenses
Target-costing system	Possibility of definition of a threshold of profitability, stock of financial durability, optimum program of release, etc. Combination of achievements of marketing and management accounting (orientation to release of the product having the characteristics which are most answering to consumers and the most probable price of realization) Ability to integrate into strategic management accounting Decrease in costs of product design stages Emphasis on external (market) factors
Kayzen-costing system	Motivation of the behavior of employees focused on the market Ensuring the acceptable level of profitability of production Use within system of the considerable list of modern techniques and control systems
AVS-method (functional accounting of expenses)	Decrease in expenses at stages of production, service and sale Allocations of costs, More objective in comparison with other systems, and, therefore, more reliable size of prime cost A great opportunity for control and search of perpetrators in conditions when the enterprise is considered as a set of the working operations defining its specifics Possibility of identification of additional reserves for decrease in expenses during rationalization of structure of business processes Reveals relationship of cause and effect between the size of expenses and methods of the organization and business Improvement of information support of all process of adoption of administrative decisions and quality of business management
The "LT" system	Organization of constant flowing subject production Rigid orientations to demand, improvement of quality of production Maximum decrease in volume of inventory holdings that reduces charges of warehouse Simplification of system of the production account, reduction of volume of documentation Simplification of a technique of the account and distribution of indirect expenses

formula of pricing: $\text{Price} = \text{Prime cost} + \text{Profit}$. Target costing:
The price – Profit = Prime cost.

For ensuring effective expenses management and creation of economic cost throughout all life cycle of the enterprise's production the target-costing should be supplemented with calculation of continuously improving product cost (Kayzen-costing). The Kayzen-costing is the instrument of expenses management, which is used at a stage of production and sale to ensuring the acceptable level of profitability of production and the enterprise in general.

In the Russian conditions, application of systems' data not always has positive consequences. The aspiration to receive a certain size of prime cost most often negatively is reflected in quality of a product.

In this regard, it is worth mentioning such instrument of management of expenses as "cost-killing" (cost-killing) representing the mechanism of expenses' reduction. Thus, it is possible to allocate two approaches: Internal and external.

It is natural that this system places emphasis on overhead costs as well, since techniques of their distribution are conditional and distort prime cost size.

According to Shalunova researches, for an internal and external cost killing there is a considerable list of receptions (their generalization is presented in Table 3).

It is necessary to apply the concept of general (total) quality management (TQM) to overcoming of possible negative consequences of a cost killing – TQM. This concept provides the prevention of emergence of problems and defects, i.e., elimination of the prime cause of problems with quality of production (for example, improvement of the equipment service and quality of the used resources).

For increase of effective management quality the concept of six sigmas, according to which it is necessary to count the additional non-financial indicators characterizing a level of quality can be introduced:

- Level of defects;

- Final exit of production;
- Number of defects on a unit of production;
- Number of defects on one opportunity;
- Number of defects on one million opportunities;
- Sigma (a quality optimum – 6 sigma, i.e., no more than 3, 4 defects on one million opportunities);
- Level of production made free of defects from the first without completion.

In addition to non-financial indicators, the cost of bad quality (prime cost of defects) pays off.

One of ways of decrease in charges of considerable material stocks is introduction of elements of LT system (the Russian specifics won't allow to introduce system completely). System effectiveness is caused by that it is aimed at destruction of any excess expenses

Table 3: Receptions of an internal and external cost-killing

Internal cost-killing	External cost-killing
Allocation of the centers of responsibility and formation of a control system taking into account their powers and functions	Compulsory revision of contracts' conditions with the existing suppliers
Reasonable classification of expenses	Tendering process (psychological reception of a cost-killing)
Choice of suitable model of distribution of constant expenses and calculation of prime cost	Search for the new partners
Creation of the monitoring expenses system, tracking of deviations and search of reduction expenses reserves	Association of "purchasing" efforts with other company, etc.
Ensuring information transparency of the organization	
Creation of effective system of purchasing and transport logistics	
Introduction of resource-saving technologies	
Consideration of opportunity or vertical integration need	
Orientation to minimization of corporate culture expenses	

and effective use of production capacity of the organization. It will allow saving financial resources that will positively be reflected in maneuverability and competitiveness of the enterprise.

Formation of information within strategic and expeditious controlling is impossible without formation of budgeting system and the administrative reporting (that inevitably includes development of the information management system architecture).

According to Sheshukova, the budgetary model includes a standard set of the following modules: Purchases/providing model; module of sales/deliveries; production module; module of administration/management; module of investments; module of finance; tax module; reference block.

Shigayev has made the generalization of problem areas in budgeting, they are:

- Procedures of the budgetary process are excessively bureaucratically;
- Many budgetary indicators and figures are unreliable and are exposed to frequent recalculation;
- Budgets are focused on financial performance;
- Installation on implementation of the budget not fully conforms to requirements of market economy;
- Procedures of budgeting interfere with breakthrough innovations owing to establishment of borders;
- Emergence of negative behavioral problems owing to specifics of formation of mechanisms of motivation.

When forming system of budgets, and systems of the administrative reporting it should be noted that the main problem of the Russian enterprises is the weak level of automation of the existing processes, scrappy nature of its carrying out. Formation of effective accounting system requires formation not only control points (control of the beginning and the end of process), but also

Table 4: Systems of indicators within controlling

System	Directions of specification
Logical and deductive systems	
Du-Pont	Profitability of a turn and turnover of the capital Advantage: Simplicity of application and orientation to profitability increase Disadvantage: Orientation to maximizing profit in the short-term; the model doesn't allow to estimate, due to change of numerator or a denominator the indicator of profitability or turnover changed
ZVEI	Analysis of development (business volume, personnel, productivity) and structural analysis (profitability and liquidity) Advantage: Existence of the catalog of indicators with an explanation of an order of their calculation and features of application Disadvantage: Existence about 200 indicators (part from which - auxiliary) complicates practical application
RL	Indicators of the annual reporting, corporate controlling, strategic controlling Advantage: Smaller size in the comparison to ZVEI Disadvantage: Key indicators - profitability and liquidity; the insufficient attention is given to not monetary indicators
Empiric and inductive systems	
BSC	Finance, markets/clients, internal processes and production, employees/infrastructure Advantage: The system covers the main aspects of activity of the organization; it is focused on existence of feedback between levels of management (drawing) Disadvantage: The received information can be distorted owing to a number of restrictions and conventions in the course of forecasting; introduction of system has to be carried out in parallel with additional administrative influences

opportunities of analytical cuts formation by which information will gather and accumulate. According to Koptelov's opinion, 15-20 analytical cuts for the effective analysis of processes are enough.

The system of budgeting and the administrative reporting rather often assumes application of graphic ways of data presentation in the conditions of the automated accounting information processing.

In this regard, it is necessary to mention such instruments of controlling as "a financial web" and geographical information systems (GIS).

Financial web – The tool allowing establishing connection in a graphic look between various purposes of financial controlling.

One of the most modern instruments of controlling should consider the GISs which emergence is caused by automation of accounting processes. GIS are information systems in which database information on spatial location of objects on the basis of uniform geographical system of coordinates is stored (Karepova et al., 2015). The system is based on the data attached to spatial coordinates and allows presenting it in the graphic form for interpretation and decision-making on management (assumes existence of the qualifier of the databases formed by controlling proceeding from the solved problem). Difference of GIS from other information systems, which is that this system unites:

- Possibility of the spatial (geographical) analysis and full visualization of results by means of creation of cartographic materials;
- Traditional technology of work with various types of databases, such as the analysis, carrying out various inquiries, replenishment and a manipulation.

One of the most important instruments of expeditious and strategic controlling is formation of indicators' systems. System of indicators – The important information instrument of controlling relating to the unformalized methods of controlling which are based on information of management accounting system and the account system in general. According to Kovalyov, system of indicators – is the set of the interconnected values, which are comprehensively displaying a state, and development of the organization.

Systems of indicators within controlling are presented in Table 4.

We will dwell upon such instrument of controlling as the balanced system of indicators. Formation of strategic maps is connected to this system. According to Robert Kaplan and Deyvid Norton's opinion, the strategic map is an evident model of the company's goals integration into the four components of the balanced system of indicators. It is an illustration reason of

the investigative relations between desirable results of client and financial components, and the outstanding results received in the main internal processes - production management, management of clients, innovations and legislative and social processes. i.e., Strategic maps are a graphic display of the strategic and business plans.

3. CONCLUDING REMARKS

Thus, the main instruments of controlling were stated above. But value of non-projective (not projective) approach to the solution of objectives, i.e., creation of such conditions round a problem in which it will be resolved without serious purposeful influence increases in modern conditions. Not projective method is intuitive decisions, innovative, with frequent adjustments in real time (that assumes flexibility). At application of not projective method, there is a search of the necessary decision thanks to overcoming the psychological inertia consisting in aspiration to solve a problem in the traditional way.

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