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## Improvement cost management system for management accounting.

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### ABSTRACT

In the article, a tool-based imposition of perspective calculating systems at the Deming cycle stage is made. The proposed model of cost management for the stages of the Deming cycle for the purposes of management accounting is aimed at the formation of a unified management, accounting and production system.

**Keywords:** management accounting, costs, cost, Deming cycle, direct-costing, kaizen-costing, normative method, target-costing.

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**INTRODUCTION**

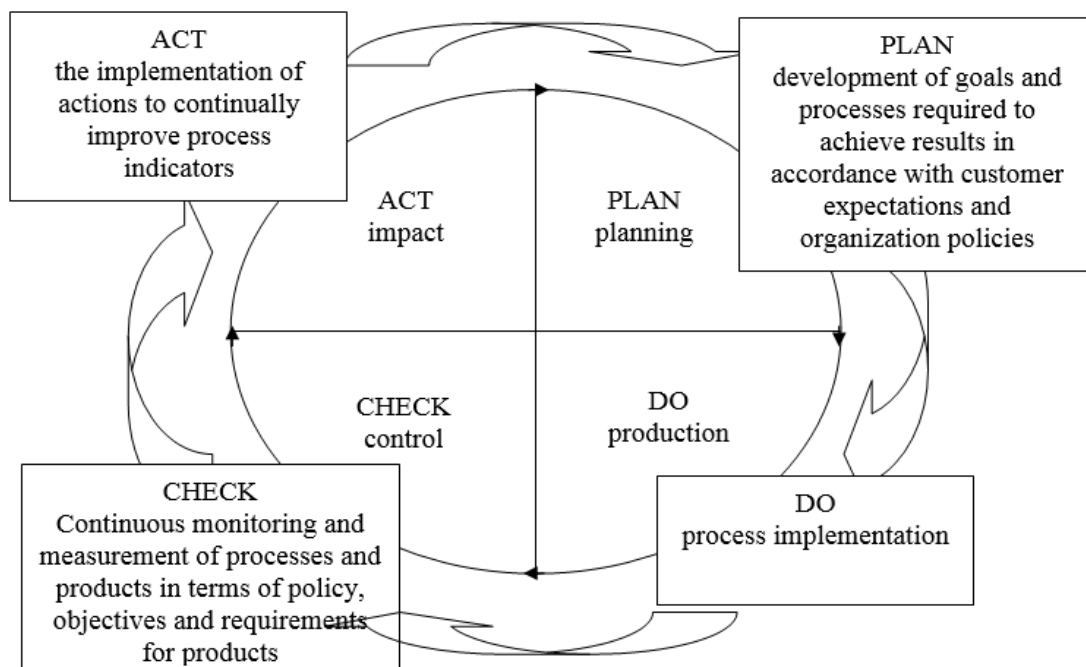
From the administration of organizations requires the adoption of measures aimed at improving the efficiency of activities. The introduction into the practice of economic entities of management accounting mechanisms contributes to the formation of an objective assessment of the activities of individual segments of the organization, and also allows for the effective management of the organization as a whole through the adoption and implementation of sound economic decisions [5,7]. To improve the quality of accounting and analytical support of organizations, many theoretical and organizational and methodological aspects of cost accounting and costing of products need improvement [1,2]. In this regard, the study, focused on the theoretical justification and development of proposals for the formation of a cost management system to improve the quality of accounting information and the adoption on its basis of effective economic solutions, seems relevant and determines the choice of the topic.

In the modern domestic and foreign literature, despite the multifaceted theoretical and practical approaches to the study of issues of accounting cost reflection [3,8], the question of the mechanisms of cost management remains open. Thus, it is required not only to improve existing ones, but also to form new conceptual representations [4, 6], methodological tools taking into account the features of the type of activity for reliable and comprehensive reflection of costs and business results.

**MATERIALS AND METHODS**

Adopting erroneous management decisions, lacks of their scientific validity can lead to negative consequences affecting regional development. An analysis of the existing management system showed that management should be implemented within a single process.

In recent years, various management systems for complex structured industries have become increasingly in demand. In the world practice, the use of the PDCA methodology (Deming cycle) is now widely used. The Deming cycle is a constant circle of regulation of product improvement and production processes (Figure 1).



**Figure 1: Deming Cycle (PDCA)**

Not only process management requires new approaches, the organization's accounting management requirements are especially high. The company management needs reliable and timely information on key performance indicators: revenue, profit, profitability. One of the most important indicators is the cost, because it

shows what the production costs of the enterprise are. The result of studying the possibilities of using the Deming Cycle methodology to manage the cost of production was the tool-based imposition of prospective calculation systems at the Deming cycle stage, as well as the development of practical recommendations on their effective use in the system of accounting and analytical support of activities.

## RESULTS AND DISCUSSION

In a market economy, the methods for recording production costs and calculating the cost of production must be flexible, easy to use, and operational.

At the stage of Deming's cycle "Product Budgeting" it is expedient to use the method of target-costing. The method of target-costing involves the execution of a sequence of actions: 1) determination of the target cost of production (per unit and for all products); 2) comparison of target and planned (estimated) production costs to determine the amount of necessary (targeted) cost reduction; 3) product redesign and simultaneous improvement in the production process to achieve targeted cost reductions.

The method of kaizen-costing is advisable to apply at the stage of "Production" of the Deming cycle. If at the design stage the difference between the planned and target cost price is up to 5%, then a decision is made to start production of such a product with the expectation that 5% will be liquidated in the production process by the kaizen-bones method. The purpose of the method is to improve the activities of the organization or its individual units with the help of internal reserves, without attracting external large investments.

At the stage of "Control, verification," it is necessary to apply the normative method, since it allows you to calculate the total cost of production. The normative method is based on the availability of norms for consumption of resources, the reflection of actual costs with their division into costs by norms and deviations. The effectiveness of the normative method is manifested in the fact that it involves timely intervention in the formation of production costs, strict adherence to technical, technological and production discipline.

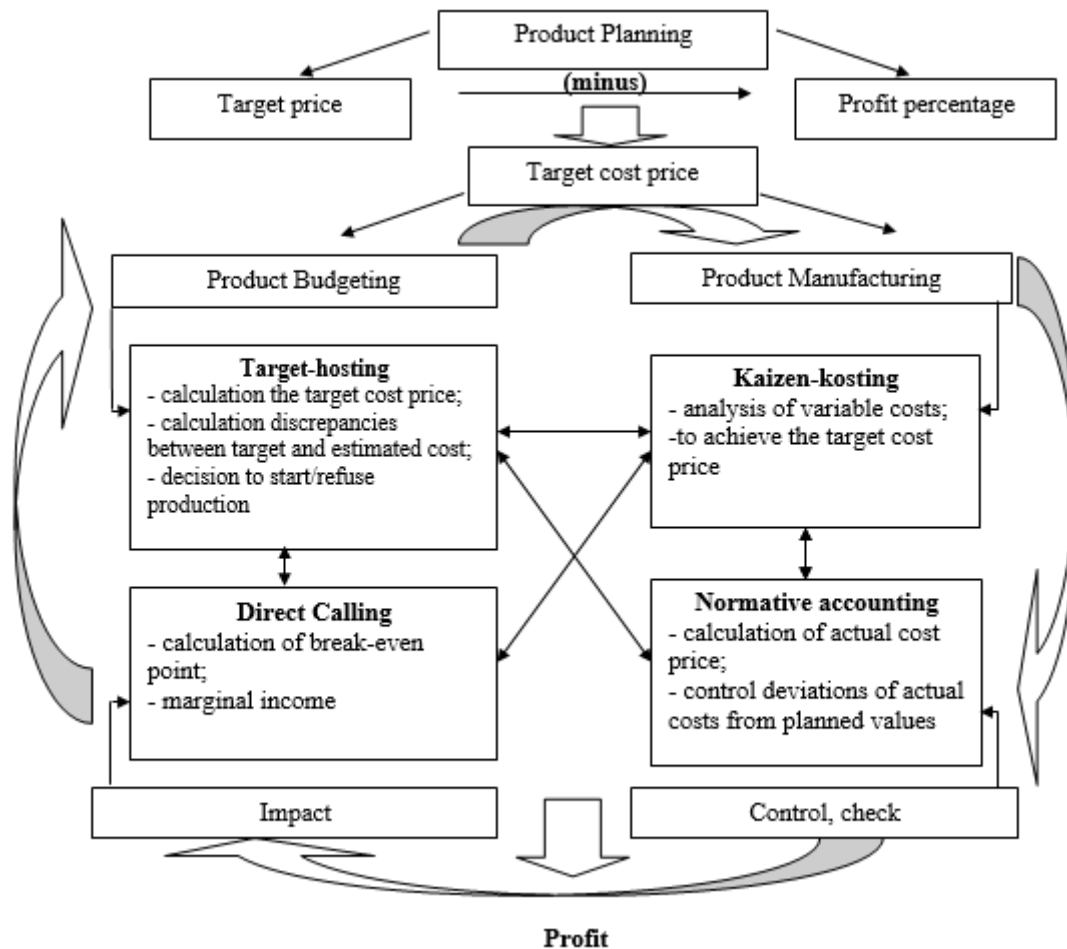
At the stage "Impact" of Deming's cycle, the method of accounting for direct (variable) costs-direct-costing-is used to calculate the key performance indicators. The direct costing system provides an opportunity to answer questions: at what level of production does the enterprise work without interruption? how many units of products need to be sold in order to get the planned profit; what profit can be obtained at a given level of production, etc. The use of this method is relevant when the issue of additional orders and production of additional volume of a certain type of product is being decided.

Each of the methods has both advantages in comparison with other methods, as well as disadvantages. Normative accounting is used mainly for cost control and performance evaluation, direct-costing - for making operational management decisions, and target- and kaizen-costing are tools to reduce costs and are part of strategic cost management. Despite the fact that the areas of application for these methods are different, they all serve one task - reducing the cost of production and maximizing profits at all stages of the life cycle of the product. Consequently, these methods can be applied within a single enterprise.

Thus, the cost management system can be transformed into a symbiosis: target-costing (strategic cost management to achieve the target cost price at the design stage of the product), kaizen-costing (search for opportunities to reduce production costs), regulatory accounting (cost accounting and their regulation on stage of control), direct-costing (making decisions about the volumes of production and orders) (Figure 2).

The proposed model represents an integrated cost management system, and visually displays the stages of the production process: design - production - control, verification - impact, and then again design and in a circle. Thus, the model is completely superimposed on the Deming cycle, which is a constant circle of regulation of the improvement of the product and production processes, optimization of individual units and objects.

In the proposed model, the calculation methods are closely interrelated, the method elements can be used not only in those stages to which they are attached according to the model. The fixing of the calculation methods for the stages of the Deming cycle is based on the principle of maximum realization of the method's capabilities in relation to the stages.



**Figure 2: The model of cost management for stages of the Deming cycle to management accounting (The author's development)**

The Deming cycle is a way of improving the quality of products, the model of cost management for the stages of the Deming cycle is a means of regulating production costs with given qualitative characteristics of the product.

### CONCLUSION

For successful implementation of modern management requirements and strategic tasks, it is necessary to use progressive methods of cost accounting and calculation at all stages of economic activity. For these purposes, a model of cost management has been developed. The introduction of the proposed methods at each stage of the Deming cycle allows to reveal the capabilities of the management accounting system to generate relevant information on costs and cost at all stages of the production and management process. The model of cost management for the Deming cycle stages will allow to make production and management of a single system aimed at achieving the best production and financial results.

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