

# NATIONAL ECONOMY'S MARKET MECHANISMS OF ACCOUNTING, ANALYSIS AND AUDIT

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## PROBLEMS OF PRODUCT COST PLANNING

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### Key words:

planning, cost, enterprise, methods, costs, targeting acceptance, classification, resources, efficiency, optimization

The article examines traditional and modern methods of cost planning. The classification of production costs by the method of determining the elements that form the cost of production is given. It is substantiated that the expediency of using each method depends on a number of factors, namely: the characteristics of the enterprise, the nature of the production process, type of product, the complexity of the production process, the results achieved, market conditions. Among the traditional methods are such methods as: the method of cost planning by technical and economic characteristics, estimated cost, the method of calculating the cost, regulatory. Among the modern planning methods are focused on such as: extracurricular method of calculating the cost of production, preliminary (post-process), the method of coverage and the target method. Target-costing is identified as a method of calculating the cost of production, which allows a new look at the interdependence of prices, profits and cost. It is determined that in the case of the introduction of target-busting there are difficulties in using additional production units in the development of a new product; unexpected excess of the actual cost over the planned already in the process of production; the impossibility of changing the technology of production of a new product in order to reduce its cost. Factors for reducing the cost of production due to changes in production and fixed costs; saving materials and reducing their cost; increase in labor productivity, which exceeds the growth rate of wages.

## ПРОБЛЕМИ ПЛАНУВАННЯ СОБІВАРТОСТІ ПРОДУКЦІЇ

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### Ключові слова:

планування, вартість, підприємство, методи, витрати, прийняття націлювання, класифікація, ресурси, ефективність, оптимізація

У статті досліджуються традиційні та сучасні методи планування витрат. Наведено класифікацію виробничих витрат за методом визначення елементів, які формують вартість виробництва. Обґрунтовано, що доцільність використання кожного методу залежить від ряду факторів, а саме: характеристик підприємства, характеру виробничого процесу, виду продукції, складності виробничого процесу, досягнутих результатів, кон'юнктури ринку. Серед традиційних методів виділяють такі методи як: метод планування витрат за техніко-економічними характеристиками, кошторисна собівартість, метод калькулювання собівартості, нормативний. Серед сучасних методів планування зосереджено увагу на таких як: позааудиторний метод калькулювання собівартості продукції, попередній (післяпроцесний), метод охоплення та цільовий метод. Target-costing ідентифікується як метод калькулювання собівартості продукції, що дозволяє по-новому поглянути на взаємозалежність цін, прибутку та собівартості. Визначено, що у разі впровадження таргет-перебору виникають труднощі щодо використання додаткових підрозділів виробництва при розробці нового продукту; несподіване перевищення фактичної собівартості над плановою вже в процесі самого виробництва; неможливість зміни технології виробництва

нового продукту з метою зниження його вартість. Викладено фактори зниження собівартості продукції за рахунок зміни обсягу виробництва та постійних витрат; економії матеріалів та зниження їх вартості; підвищення продуктивності праці, що перевищує темпи зростання заробітної плати.

### Formulation of the problem

In conditions of deepening competition in both domestic and foreign markets, as well as increasing requirements for product quality encourages companies to develop creative approaches to improve efficiency, which largely depends on planning production costs, which together form the cost of production.

The basis of the new philosophy of the planning process is the ability to respond in a timely manner to changing market conditions, which involves the principles of dynamism and rationality in reducing production costs during periods of negative market fluctuations, and in favorable economic conditions to optimally allocate resources between current and investment activities. This organization of the process of planning production costs, ie the cost of production, significantly increases the chances of the company not only «survive» in conditions of significant market transformations, but also successfully operate and build a future strategy for enterprise development.

### Analysis of recent research and publications

A significant number of works by foreign and Ukrainian scientists testifies to the significant interest of scientists in the issues of theoretical substantiation of product cost and methods of its planning. Among foreign researchers, the problems of cost accounting and cost planning should be distinguished Drury K., Apchercha A., Skun T., Foster J., Horngren C. [5, 10], who considered the cost of production in terms of management accounting.

Ukrainian scientists also make a significant contribution to the development of theoretical and practical principles of the process of product cost planning. Among them are: Butynets F. [1], Vasyuk G. [2], Dreval. O. [3], Ivanyuta P., Luhivska O. [4], Lisovyi A., Lyashenko G., Pizhuk O. [6], Rysnykh E., Larionova K., Orlov O. [7], Sopko V. [8], Shik L., Skorobogatova N. [9] and other scientists and economists.

Despite the significant amount of theoretical and practical research on product cost planning taking into account industry specifics, in our opinion, a more thorough analysis requires classification of product cost planning methods and focus on modern approaches used in enterprise management accounting.

### Formulation of the objectives of the article

The purpose of the article is to reveal the theoretical approaches to the essence of the category of cost of production of the enterprise, to determine the main stages of formation of the cost of production of the enterprise management system. As well as a critical analysis of applicable in the practice of domestic enterprises methods of cost planning, analysis of the structure of production costs, determining the efficiency of financial resources of the enterprise on the basis of comparative analysis of the enterprise.

### Presentation of the main material of the research

Modern economic realities indicate the need to identify and eliminate obstacles in the enterprise by finding alternative factors and involving them in production, as well as finding reserves that are not fully used or are not involved in the production process. The efficiency of the enterprise functioning and prospects of its future development depend on it, and also directly influences results of activity and their optimization. After all, the strength of the «immunity» of economic agents depends on how profitable their activities are. In addition, companies that demonstrate inefficient activities are unviable and cannot withstand fierce competition.

Among the indicators that determine the efficiency of the enterprise is the cost. Cost is a synthetic indicator that covers all aspects of production and economic and financial activities, namely: the efficiency of material, labor and financial resources, quality of work and the organization of the management mechanism in general.

In the scientific literature, the cost of products (works, services) is defined as a cost estimate of the level of use of resource potential, capital resources, services from third parties and the level of wages. The cost of production directly determines and affects the amount of profit of the enterprise. There is an inversely proportional relationship between these indicators, the higher the cost of production, the lower the profitability of the enterprise, and vice versa. Such analytical dependence characterizes the degree of rational use of resources and the efficiency of the organization of the production process, which directly affects the profit and level of profitability.

Based on the above, it should be concluded that the calculation of the cost of production is one of the main tasks for the company, which seeks to achieve a rational allocation of resources and optimize the results of its activities. In addition, the quantitative determination of the cost is the basis for forecasting and forming a mechanism for managing the production process of the enterprise in order to purposefully influence the results of activities.

Cost is important from the point of view of the practice of economic activity of the enterprise, because it involves the process of cost planning.

The main purpose of cost planning, which together form the cost of production, is to ensure the appropriate level of optimization of current costs, which allows to ensure appropriate rates of increase in profitability and profitability, taking into account the principle of rational use of natural resource potential [3, p. 104].

The main tasks of product cost planning include:

- analysis of indicators in monetary terms of production and financial activities of the enterprise as a whole or its individual structural units;
- determination of production capacity and the required amount of reduction in production costs according to the plan compared to previous periods;

- costing of all types of products produced by the enterprise;
- analysis of the inexpediency of individual costs and identify measures and tools to eliminate them in general or reduce the negative impact;
- assessment of the impact of production costs and its reduction on the profitability and profitability of economic activity of the enterprise.

The use of structural analysis allows us to identify the main units of the cost plan of the enterprise:

- analytical determination of the amount of cost reduction by increasing the efficiency of technical and economic factors;
- calculation of the cost of products produced by the enterprise;
- preparation of a general estimate of production costs.

In the practice of industrial enterprises widely use the principle of allocating certain types of costs to the cost of production, which is that cost planning covers production costs, which ensures the efficiency of reproduction of almost

all components of the production process, while all other costs have financial coverage profit or investment account.

The production activities of the enterprise are characterized by unproductive costs, such as loss of materials, downtime, production of substandard products, which are compensated by the inclusion in the cost of production [1].

In turn, the costs incurred as a result of violation or non-compliance with the terms of agreements (contracts), such as: penalties, fines, complaints, are reimbursed from the profits of the enterprise.

The process of cost planning is a certain algorithm, which consists of a sequence of actions – steps.

The initial step in the process of planning production costs is to determine the criteria for their classification, which involves the division of all costs into certain groups according to a certain criterion – a feature, characteristic (Fig. 1).

Note that the classification of costs greatly facilitates the process of planning the cost of production by ensuring their order and systematization.

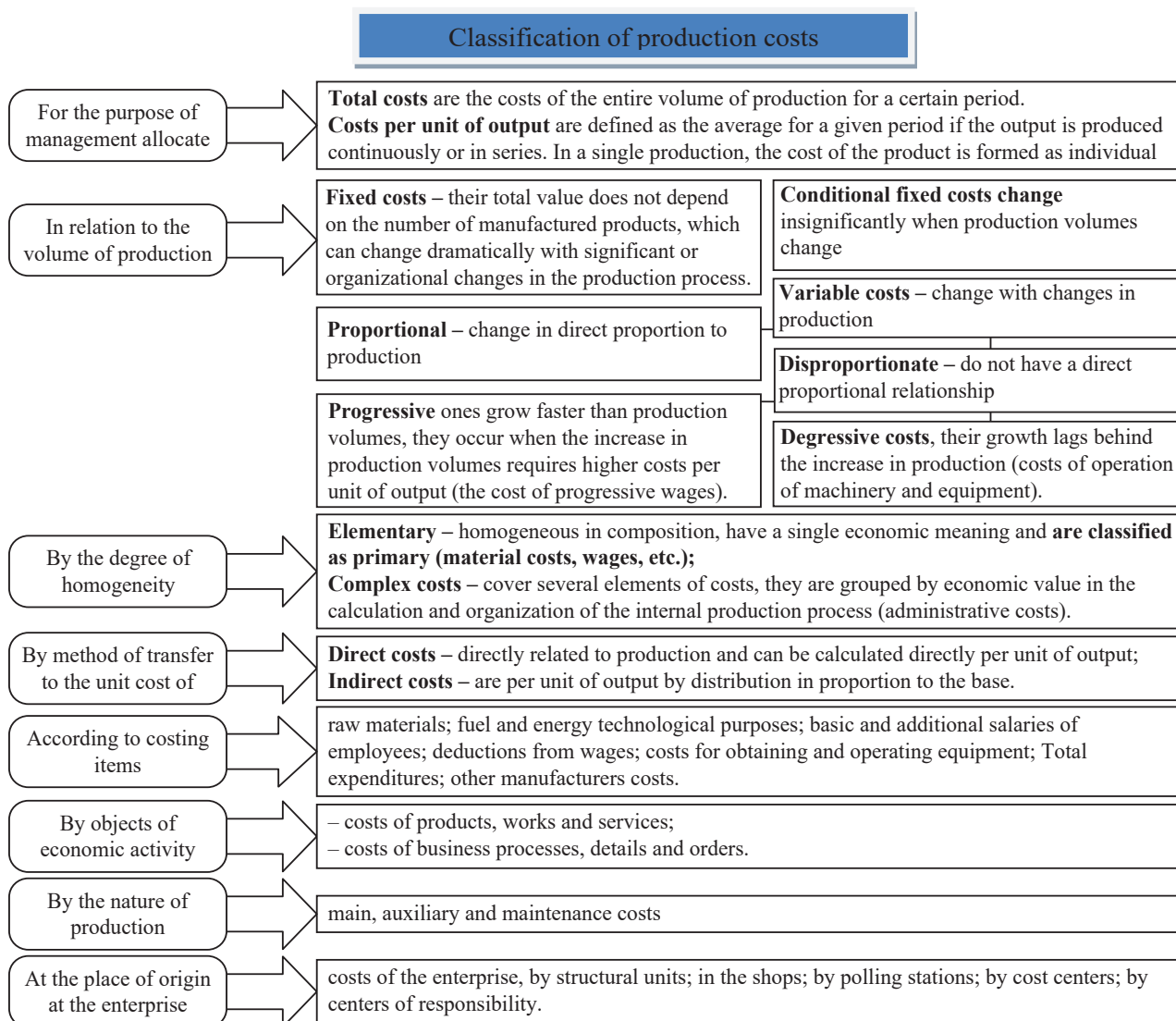


Fig. 1 – Criteria for classifying production costs to build a «cost plan»

Source: built on [5; 9]

Quite common for industrial enterprises is the classification of the distribution of costs by place of origin. The purpose of such grouping is the reliable formation of the cost of finished products, ensuring the appropriate level of responsibility of structural units of the enterprise for the distribution (redistribution) of financial resources and the process of their optimization.

The distribution of costs depending on the objects that carry out economic activities allows you to determine the actual cost of production in general and its individual types. Based on this criterion, the selling price is determined, the level of profitability is analyzed and the possibilities of reducing the cost of certain types of products are outlined, etc.

The second step in the cost planning process is to analyze the effectiveness of the use of financial resources of the enterprise based on a comparative analysis of current and past periods. The purpose of such an analysis is to estimate the actual costs compared to the planned period or the previous (in time) cost level.

The appropriate sequence of analysis involves the following steps:

- estimating the cost for the reporting period and comparing the fact with the plan;
- determination of growth and growth rates;
- analysis of the structure of costs and their changes with the determination of the share of each type of costs;
- study of costs based on the division into constants and variables;
- calculation of the share of production and non-production costs and analysis of the relationship between them;
- justification for choosing the method of cost allocation.

In the practical activities of industrial enterprises, it is rational to use scientifically sound methods of cost planning, which are presented in Figure 2.

We consider it appropriate to comment on the specific aspects of each of these methods.

The method of planning costs by technical and economic factors determines the impact of technical and economic factors on the cost of production and allows to formulate a number of measures to reduce its level by improving the use of technology and economic levers of influence.

The estimation method allows to detail each type of expenses which form production costs, and to harmonize the work of each of the divisions of the enterprise separately, and also in their interaction. Substantiation of the level of costs per unit of output is based on the method of calculations.

The normative method determines the compliance of production costs and costs with certain defined norms and standards, as well as to make effective management decisions to optimize the use of resources and improve performance.

In addition to these methods, it is impossible not to single out modern methods of cost planning, which are used in today's industrial enterprises (Fig. 3).

Out-of-order, boiler, preliminary method of product cost planning and coverage method are well known in

domestic practice. From this point of view, we will focus in more detail on the method of target costing – as a modern method of planning, which allows you to get creative in understanding the role of price, profit and cost, as well as to determine the relationship between them.

The method of target costing is that the primary role is to determine the unit price at which the company must sell the planned number of finished products (goods, works, services) with a stable level of profitability, at least for the previous period. According to this method, the difference between these indicators forms the level of cost, which is a guide for the company – the target cost. Target cost is a criterion value, which is the basis for the production and sale of products (goods, works, services) to end users.

Using this approach allows to ensure the required level of production costs by increasing the level of efficiency and use of alternative opportunities and reserves to reduce costs, rather than by deteriorating quality and, accordingly, the formation of a negative image of the enterprise. Based on the above, it should be noted that the method of target costing can increase the level of profitability of the enterprise in general, and the founders, shareholders and investors in particular.

There is a real opportunity to save resources on new product development, as well as reduce the cost of marketing activities by meeting the needs of target consumers in both quality and price characteristics.

Despite the significant advantages of the method of target costing in cost planning, of course, there are obstacles to its use in the enterprise. The main disadvantages include:

- mandatory participation of all structural units of the enterprise in the development of new products. At the same time, there may be significant obstacles in the event of inconsistencies in the conditions of the task between the divisions of the enterprise, as well as the inability in the short term to determine a common methodology for optimizing production costs. It is extremely difficult to convince the heads of individual departments in the need to reduce costs in order to achieve the overall efficiency of the enterprise as a whole and structural units;

- increase in the actual cost above the planned cost, which becomes apparent only in the production process. To avoid this situation, the market should be systematically monitored and changes in its situation, as well as the dynamics of supplier prices and changes in tastes and needs of consumers. It is not possible to neglect these measures, as the result will be packaging of finished products that are not in consumer demand.

To reduce the cost of production, it is impractical to change the technology of production of new products. The result of such modifications may be the risk of losing significant financial resources, namely the cost of existing developments and loss of time. In addition, there is a risk of production, which is made under the conditions of suboptimal use of resource potential or is not in demand in the market [2].

Thus, the main purpose of the process of planning the cost of production is to increase the efficiency of the enterprise by achieving cost optimization, which together are part of the total cost of production. Factors that reduce

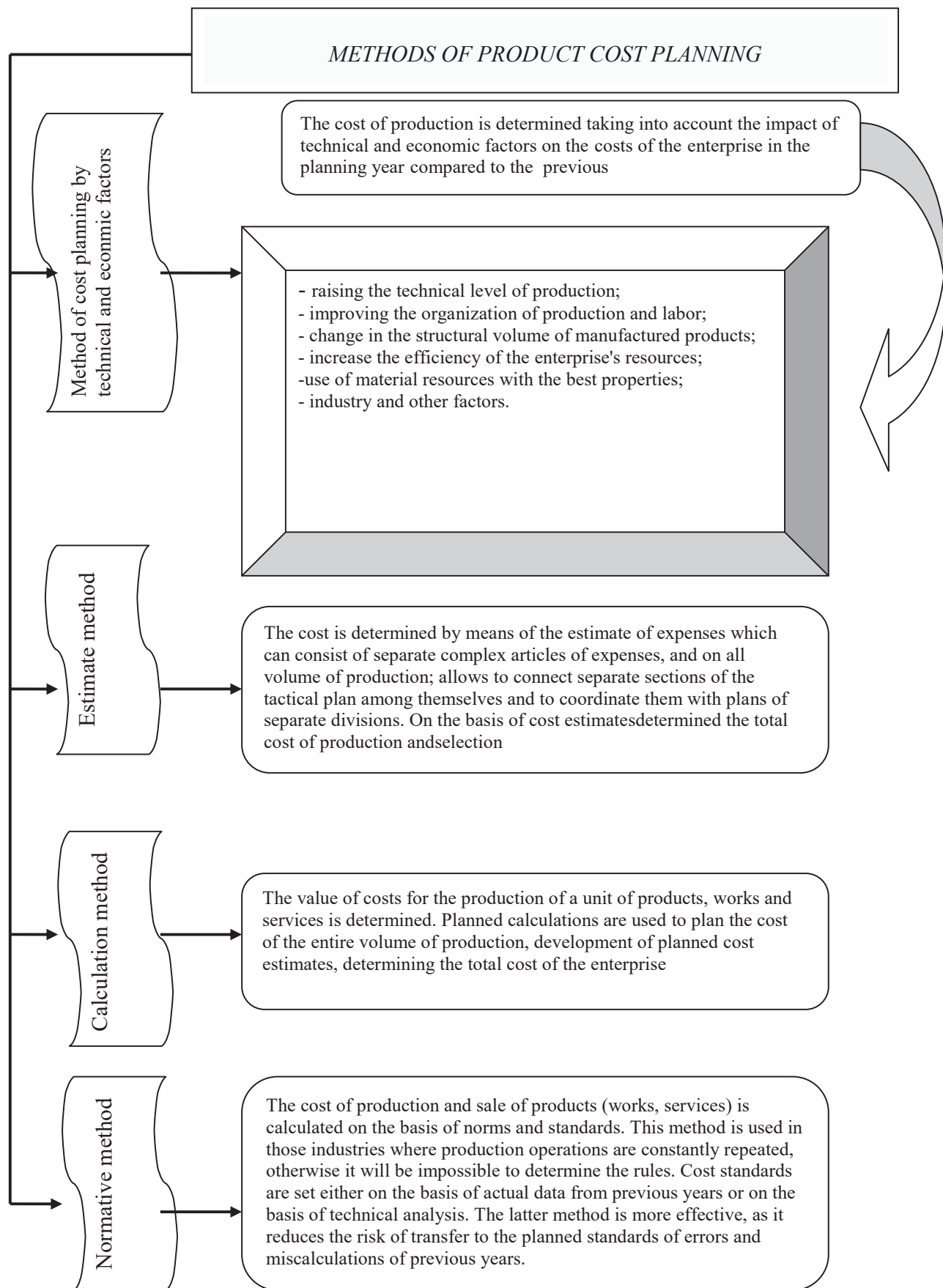


Fig. 2 – Methods of cost planning

Source: built by the author for [4; 8]



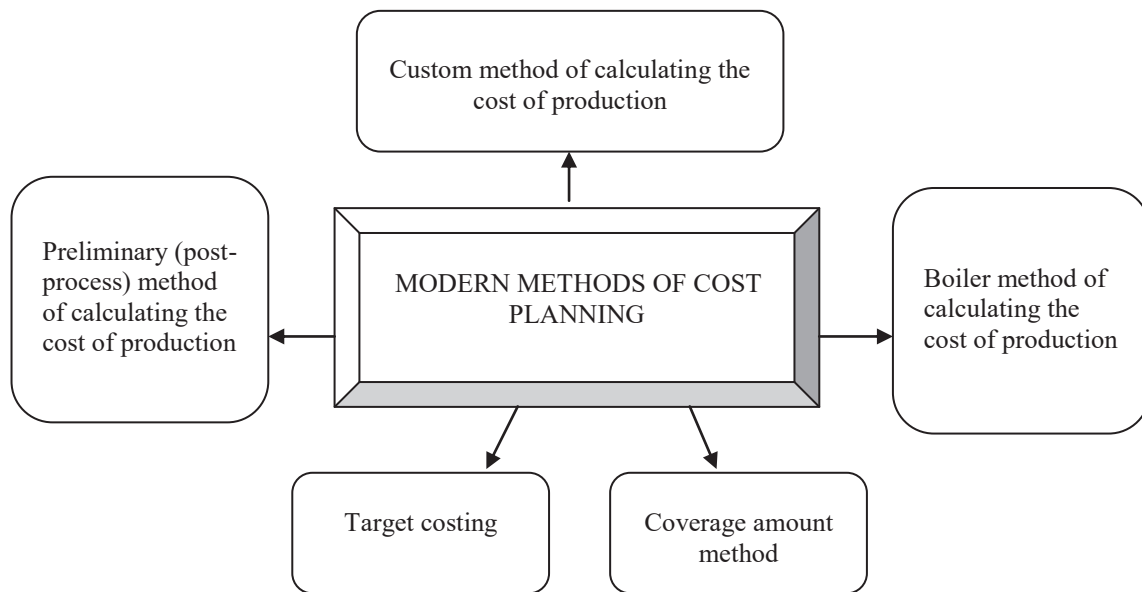


Fig. 3 – Modern methods of product cost planning

Source: built by the author [6; 7]

the cost of production can be grouped into three groups: changes in production and fixed costs; saving resources used in production and reducing their cost; intensive development of the enterprise, which assumes that the growth rate of labor productivity is higher than the growth rate of wages – wages.

### Conclusions

The study of production cost planning methods allows not only to distinguish traditional, in terms of theoretical justification, but also modern methods based on their practical application, and formulate criteria for their use depending on the characteristics of the enterprise, species classification, nature of production and its complexity,

the level of profitability and market conditions and more. Every company strives for production development, and therefore is in constant search of economically sound optimal solutions and the formation of a new philosophy of organization of production processes and management. Therefore, rational and conscious planning of production costs is of paramount importance for the successful operation of the enterprise and determine the trajectory of its future development, which is achieved by identifying and optimal use of reserves, resource potential and resource conservation. The development of a cost plan significantly increases the probability of successful operation of the enterprise in both domestic and foreign markets and ensures a high level of product competitiveness.

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