Economics

UDC 338.32.053.4:796

ABOUT THE PROBLEM OF BUDGET DISTRIBUTION BY PROFESSIONAL SPORT CLUBS

ALIAKSANDR MATVIYENKA, ANASTASIYA YEMIALYANAVA
Polotsk State University, Belarus

The article is devoted to budget distribution by professional sport clubs. The study noted the most important issue affecting the efficiency of investment processes and budgetary policies in the industry of professional sports. The authors presented an optimization model of budgetary allocations regulation. On its basis the researchers proposed the development of a technique for fiscal regulation optimization of professional sports club as a tool to solve qualitative distribution of the budget segment.

Human activities in one way or another are directed to solving the problem of finding the most optimal solution in terms of a number of imposed restrictions. Under normal conditions, the algorithm of decision-making as a rule does not imply the use of sophisticated scientific methods, and in turn allows making all necessary calculations without involving third-party staff and vehicles based on their intuition, knowledge, abilities and skills. The gradual transformation of management problems expressed in the increasing amount and complexity have led to the impossibility of their solving without the improvement of economic-mathematical methods and the use of modern computer software.

At the end of each season a professional sports club has at its disposal a certain amount of funds, which are expressed both in monetary, and in natural quantities, they can be received by different segments, such as commercial activities, transfer operations, sale of television broadcasting rights and overall income on the day of the match. The most potential segments should be invested in full development, and less profitable need support. The main objective of a professional sports club fiscal policy is the optimum cost allocation to development areas (segments) and maximum benefits from their investments within limited opportunities.

Every professional sports organization has its own potential segments. Here is an example of a profit in three major segments traditionally determining the success of professional sports clubs (commercial, matchday, broadcasting) of the most profitable football club in the world Real Madrid on the report of Deloitte Football Money League 2015 (Fig.).

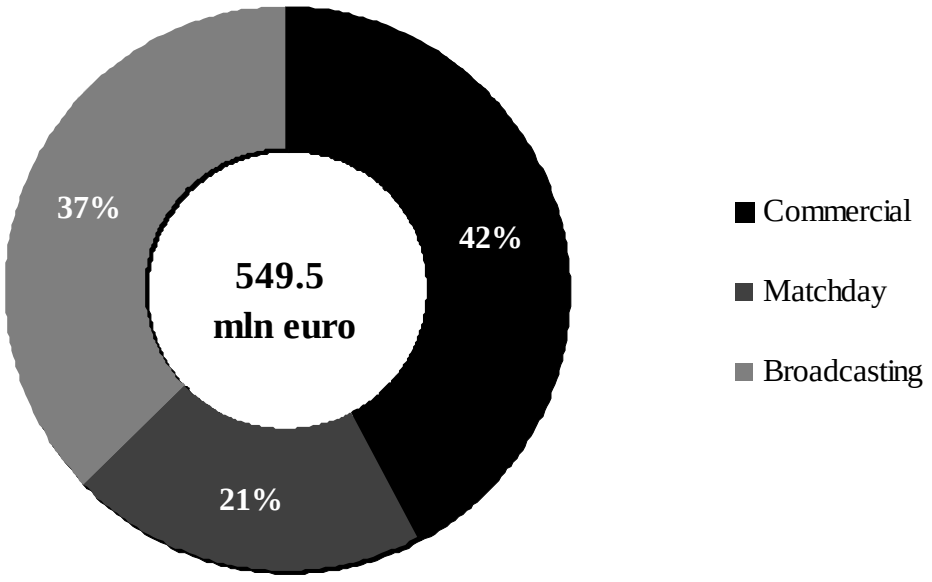

Fig. The return of a professional football club Real Madrid

Source: own elaboration based on data [1].

With significant resource constraints of a professional sports club, primarily cash, there is an urgent need for rational allocation, systematic optimization for control of their use, the development of priority segments and their policy of funding the organization. In this regard, there is a need for a new vision of the planned regulation system on the basis of control of a professional sports club, the study of modern economic-mathematical models and tools for the analysis and forecasting of the efficiency of budget formation and distribution.

The most suitable solution for the problem of optimal allocation expenditure of a professional sports club is efficient optimization methods. In this regard, fundamental aim is to choose the optimal mechanism taking into account the imposed restrictions on the budget to maximize revenue from all segments of a professional sports club.

The main objective of fiscal policy of a professional sports club is to distribute investments in the most prospective segments and to maintain the existing ones in order to increase the total income of the organization. This gain may depend on some criteria such as the profitability of the segment, its growth dynamics, the magnitude of the budgetary cost of its development or maintenance.

The lack of economic-mathematical modeling and automated (software) system in professional sports organizations impedes the process of forecasting and analysis of the current state, which in its turn impedes to invest budget funds efficiently in the most potential segments. The analysis of the problem shows its relevance, which is essential, and may help develop methods of budgetary management optimization of a professional sports club.

This approach can be implemented in practice by means of optimization models, including the special factors supporting (representing a lower value, i.e. bring less income) and developing (potentially valuable) segments.

On the basis of the foregoing, this problem can be solved using the following optimization model, which will form the basis for the development of the proposed method:

$$B = \sum_{j=1}^{m}\sum_{i=1}^{n} B = \sum_{j=1}^{m}\sum_{i=1}^{n} S_{ij} \cdot P_{ij} - C_{ij} = B = \sum_{j=1}^{m}\sum_{i=1}^{n} B = \sum_{j=1}^{m}\sum_{i=1}^{n} S_{ij} \cdot P_{ij} - (\mathrm{C}_{b_{ij}} \cdot k_{s_{ij}} + \mathrm{C}_{p_{ij}} \cdot k_{d_{ij}}),$$

where B – the total budget of a professional sports club received from all segments during the reporting period ($i = \overline{1,n}$);

B_{ij} – income from the i-th segment for the j-th time period;

S_{ij} – the number of i-th segments generated for the j-th time period;

P_{ij} – the profit from each i-th segment for the j-th time period ($P_{ij} = const$) excluding costs;

C_{ij} – the cost of the i-th segment in the j-th period;

$C_{b_{ij}}$ – the cost of maintaining the existing i-th segments in the j-th period;

$C_{p_{ij}}$ – the costs of the development potential of the i-th segment in the j-th period;

$k_{s_{ij}}$ – the maintenance coefficient of the i-th segment of the l-th (future) time period;

$k_{d_{ij}}$ – the coefficient of development of the i-th segment of the l-th (future) time period;

($i = \overline{1,n}$) – the number of segments.

Since the distribution segment of the available funds in the budget of a professional sports club is limited and cannot be negative, relevant constraints were identified: the nonnegativity of the variables $C_i \geq 0$; on the budget $\sum_{i=1}^{n} C_i = C,\ i = \overline{1,n}$.

The development of the proposed methodology of optimization of fiscal regulation of professional sport club will:

– allocate resources optimally, taking into account the needs of the segments investments and investment funds;

– give recommendations when choosing a model for solving the problem of optimal ranking of budgetary allocations professional sports club;

– manage the budget of a professional sports club, promptly and accurately in response to continuous dynamics;

– predict future state of the segments to maintain or develop the most potential ones, and in turn to maximize profits;

– supervise the use of funds allocated to segments of a professional sports club.

The proposed development of budgetary regulation methodology of the professional sports club will allow selecting the optimal variation of the budget distribution of professional sports organizations and maximizing profit in all their segments. The peculiarity of this technique is that it will use optimization techniques that help very effectively to solve the problem of qualitative distribution of the budget of a professional sports club. This technique can be implemented in practice by any professional sports organization for more efficient budget management.

REFERENCES

1. Deloitte Football Money League 2015 [Electronic resource] // Deloitte. – 2015. – Mode of access : http://www2.deloitte.com/content/dam/Deloitte/uk/Documents/sports-business-group/deloitte-football-money-league-2015.PDF. – Date of access: 24.01.2015.

UDC 657.22:553

ACCOUNTING OF MINERAL RESOURCES DEPLETION

OLGA METLA, SVETLANA VEGERA
Polotsk State University, Belarus

The paper presents a method of accounting and financial reporting of mineral resources to provide information about the use of natural capital and its depletion.

Introduction. Currently, much attention is paid to the ratio of the rates of natural capital and the economy results of a business entity.

This is a particularly relevant issue for resource-oriented economic activities, in particular for oil and gas and mining companies, as the cost of the most significant assets of entities - mineral reserves - is not reflected in the financial statements, which does not comply with the principle of priority of economic contents over legal form, distorts the rates of the resource potential and investment attractiveness of the organization. It does not provide the accounting of natural capital depletion and there is no proper integration of this information into the system of national accounts in order to determine reliable rates of national wealth and to calculate macroeconomic rates of sustainable development.

The main part. To reflect the market value of the economic potential of mineral resources in the accounting and reporting we offer to use a separate synthetic account XX "Mineral Resources". The account model XX "Mineral Resources" is presented in Figure 1.

XX "Mineral Resources"

Debit	Credit
The market value of the mineral resources at the beginning of the reporting period	
Turnover on the debit	Turnover on loan
During a month	
Increase in the value of mineral resources after prospecting	Decrease in the cost of post-mining of mineral resources
The market value of the mineral resources at the end of the reporting period	

Fig. 1. Model of the twentieth account "Mineral resources"

However, it should be noted that not all mineral resources may be regarded as assets of the company, only those which are under control.

The solution for this issue lies in the type of contract according to which a company receives the rights to develop and produce mineral resources.

Each of the agreements provides% of the active participation share, according to which companies receive the right for mineral resources and also cover the costs for the deposits prospecting and mining. That is, according to the account of XX "Mineral resources" should show the current market value of those mineral reserves, which are eligible under the terms of the contract and in accordance with the proportion of active participation.