Information-Analitical Support of Cost Management in Horse Breeding

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Doi:10.5901/mjss.2014.v5n18p193

Abstract

In this paper the use of technique for analyzing the relationship "Cost - Volume - Profit" in horse breeding is studied, which allows to simplify accounting and analytical support of cost management and control the amount of profit as a result of changes in variable costs, selling prices and product mix of the given industry; a method of budgeting has been adapted to horse breeding industry conditions for effective cost and financial performance management of organization activities.

Keywords: *horse breeding, management, cost, marginal analysis, transfer pricing, budgeting, responsibility center.*

1. Introduction

In present economic conditions, organization management requires formation of objective, timely and authentic information. Specific role is featured for production costs management, as without proper evaluation of the real cost one can not competently manage the efficient production. In modern conditions the role of accounting and analysis increases greatly with emphasis on management [1, 3, 8, 10]. Management accounting system and cost analysis give an opportunity in preparing the accounting and analytical information on the cost for the right management solutions guided by the desire to maximize profits, monitor their performance and efficiency.

This happens due to the ever-changing situation on the market of agricultural products, the advent of new technologies, expanding the list and improving the quality of agricultural activities and services. In the competition for new customers and regional markets industry participants need to pursue a flexible pricing policy, possible only on condition of significant cost reduction. The enterprises of horse breeding sector can achieve their goals and gain competitive advantages through the use of modern methods of cost management, which requires managers to improve the quality of their decisions. It is impossible to make the right decision without having the diverse information about the processes occurring in a controlled structure and external environment. Therefore, the management decisions quality issue in modern conditions has been transformed into the issue of providing the high level of information awareness for management subjects.

Technique for analyzing the relationship of “costs - volume – profit” (CVP- analysis)

In practice, the head of any company has to take a variety of management decisions in terms of cost, price, volume and structure of products sales that will ultimately affect the financial results of the company. Determination of the breakeven point is a simple way to determine the relationship between these categories. [1, 4]

One of the main tools for planning and forecasting of the organization activities is a technique for analyzing the relationship “Cost - volume – profit”(CVP- analysis) based on determination of the breakeven point.

The main elements of CVP-analysis are the profit margins, profitability threshold (breakeven points), production leverage and safety margin.

The relationship between the costs, volume, and the results can be expressed by the following formula:

$$N = \frac{S_{const} + P}{MP_{unit}} = \frac{S_{const} + P}{P_{unit} - S_{var.unit}} \quad (1)$$

where, N - volume of production in physical terms;

P - amount of profit;

P_{unit} ($Ц_{ед}$) - Unit Price;

S_{const} ($S_{пост}$) - amount of fixed costs;

$S_{alt.\ unit}$ ($S_{пер\ ед}$) - amount of variable costs per unit of output;

MP_{unit} ($МД_{ед}$) - amount of profit margin per unit of output.

Let us consider the application of this formula to the conventional example.

Kumiss (mare's milk) unit produces and sells kumiss for 30.47 rubles per bottle. The planned volume of sales per month is 20,000 bottles. Variable costs per bottle 19.03 rubles, fixed costs - 58,700 rubles, planned income - 100,000 rubles.

To establish the relationship between costs, volume and results, let us determine the influence of each factor on the expected results.

Since the average value of marginal revenue is the same for all three options, the profit calculation can be simplified. For example, how much profit will kumiss farm receive, when selling 14,930 bottles of kumiss; 11, 44 × 14,930 = 170,799 rubles – this is the value of marginal revenue for the given volume. The profit is: 170,799 – 58,700 = 112,099 rubles. The calculations show that CVP- analysis allows to find the most optimal ratio between variable and fixed costs, price and volume of production.

Transfer pricing features by accounting the costs of responsibility centers in horse breeding

For the purpose of agricultural production efficiency improvement in modern conditions one should organize a search for reserves at the farm level. Therefore, accounting in management accounting is mandatory not only for the whole company, but also by the responsibility centers and cost creating outlets. Organization of accounting in the responsibility centers and cost creating outlets allows us to decentralize cost management, monitor their formation at all levels of management, identify the perpetrators of overhead expenditures and thus provide increased economic efficiency [2, 7, 11].

The cost creating outlet is a structural unit of the company (department, section, team, farm), in which planning and accounting of production costs for monitoring and management are organized. Cost creating centers are the object of analytical account of production costs by the economic elements and calculation items. Organization of the whole set of activities related to management costs of horse breeding industry depends on technological features, nature of products, and other factors. In horse breeding, one may identify the following responsibility centers such as horse farms, koumiss shop, feed production, racetrack and others. The cost creating centers in horse breeding industry are objects of analytical accounting of production [3]. For example, at kumiss farm LLC "YYY" it is possible to determine the cost creating centers by the units (Fig. 1).

The development of transfer pricing methodology is of importance in organizing the accounting by responsibility centers. Transfer prices are conditional-clearing domestic prices for products and services of one division (responsibility center) transmitted to another division of the same organization. Application of transfer pricing is most appropriate in the divisions having the right to determine independently the volume of sales to external customers as well as to fix the prices. [4, 6] There are three basic methods for determining transfer prices: on the basis of market prices, based on costs of production, on contractual basis. The first method cannot be used by agricultural organizations. It is used in cases, where the division has both internal and external customers.

This is possible only in the branches and subsidiaries of large industrial enterprises [9]. Pricing based on cost of production can be applied in structural divisions, where the centers of responsibility are cost centers. This is not acceptable in crop and livestock production, as in this case management accounting shall also be organized in profit or income centers. Otherwise, no material interest or payment for outcomes, responsibility for quantity and quality of products can be considered.

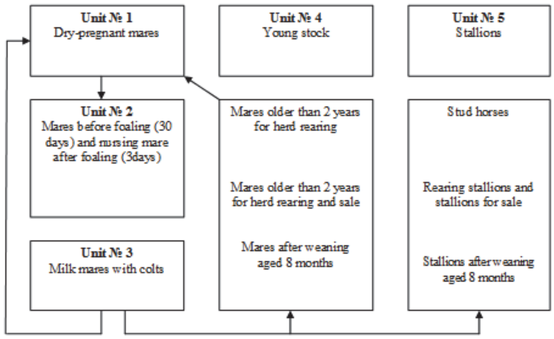

Fig.1 Scheme of animals travel on cost creating centers

The following formula is used for calculation of the transfer price on contractual basis:

$$T_p = V_c + МД, \qquad (2)$$

where, T_p - transfer price per unit of output, rub.;

V_c - variable costs in the unit of transferred production , rub.;

MP - marginal revenue per unit of production, rub.

Methods for calculating transfer prices in international practice are universal. However, their use in agriculture, including horse breeding, makes no sense, because there are no market prices for certain types of feed. For example, currently there is practically no market of roughage (hay, straw), succulent fodder (silage, roots), green fodder, and as a result, there is no market price for them.

In modern conditions, the developed and validated technique of calculating transfer prices is of great importance. Management staff in the whole organization and the personnel of responsibility centers should be interested in obtaining the maximum profit and be equally responsible for effective management of this industrial activity. As a result, employees of responsibility centers should have the right to receive part of the profits from sales of products, and the other part of the profits should remain with the company. Thus, contractual transfer prices should be higher than production costs and lower than its selling price per side. In modern conditions there are a few possible variants of contractual prices determination. Let us consider the method for internal transfer prices determination developed by R.A. Alborova in forage production [5].

2. Conclusion

Thus, the article has proved the need for further study and development of horse breeding industry accounting and analytical information. Companies of the industry, due to unpopularity and loss in recent years, still have the potential, which makes it possible not only to regain the lost position in the short term, but also to achieve a higher level of development. The studies performed and proposals worked out for development of accounting and analytical supply for cost management will not only reduce the cost of production, but also promote the adoption of effective management decisions to reduce production costs of horse breeding.

Data base of cost management in horse breeding development is certainly a complex process that involves planning, valuation, accounting, analysis, effective cost control and management, forecasting, and making appropriate decisions to prevent negative results. Cost management is a systemic action based on principles that include science-based combination of costs lowering with higher quality of manufactured products, eliminating of overhead costs, and continuous development of information security of costs management system at all stages of product life cycle. Cost management system creation in the industry is a necessary condition of its efficiency improvement. The basis for accumulation and synthesis of data in terms of cost management means the accounting and analytical information provision. Consequently, the study of management accounting and analysis issues is an important element that allows us to organize effective cost management in horse breeding. Development of accounting and analysis of production costs of horse breeding will strengthen accounting and information cost management and provide the necessary basis for competent management decisions, motivated by the desire to maximize profits.

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