

THE NECESSITY OF LOWERING PRODUCTION COST IN THE MANAGEMENT OF COAL MINING UNITS

IONELA-CLAUDIA DINA, GABRIELA BUȘAN *

ABSTRACT: *In the current economic conditions, cost is a key instrument in decisions on resource allocation, which are often limited, on the volume and structure of production, increase or withdraw supply of goods or services market, etc. In these circumstances the best choice is to choose a minimum cost. In its universal acceptance, the cost of production is an economic category that provides information about the work done by an operator and is a key factor of economic and financial analysis of the efficiency of the unit. Calculating the cost of production is achieved only at a general level, but are taken into account and: distribution cost, labour cost, cost of education, health, information, administration, time, debt (credit), inflation, unemployment, economic reform, ecological cost.*

KEYWORDS: *managerial decision, resources, production cost, cost calculation, cost reduction, coal mining industry*

1. INTRODUCTION

In the current conditions of market economy, enterprises must act and develop in an environment which is increasingly unstable and more risky. To this end *management activities* use many information which are to be created, provided, analysed and controlled increasingly stringent, so that enterprises can improve their ability to react to external factors. Thus, *managers* are forced to assume responsibility for the best browsing pathways to obtain maximum results with the use of resources becoming increasingly scarce and more expensive.

Management decisions based on cost of production are focusing primarily on monitoring dynamic developments compared with changes caused by actual production activities. From these violations, general managers, and those of mines in particular, can detect various ways of reducing the cost of production that would have

* *Assist.Prof., Ph.D. Student, "Constantin Brâncuși" University of Tg.-Jiu, Romania,*
claudia.dina@utgjiu.ro
Lecturer, Ph.D., "Constantin Brâncuși" University of Tg.-Jiu, Romania,
gabriela_busan@yahoo.com

as effect the accumulation of certain factors of production, according also to their specific consumption from the extraction activity. Generally, *cost of production* is an indicator that comprises all living and materialized labour consumption expressed in monetary form, made or to be made for purchase, manufacture or sale of a unit of economic goods, works performed or services provided by one unit. In one of his works Paul Hayne defines production cost this way: "total cost is the cost of the opportunity and thus it includes not only pays made by the enterprise towards others for the merchandise and services it benefits from, but also the implicit value of any good (work force, field, capital) that the firm delivers to itself" [4].

2. MANNERS OF REDUCING THE COST OF PRODUCTION

Production cost is also a reference indicator of the level of economic efficiency. Tracking the actual level of production costs provide the company the possibility to know the volume of the factors of production and efficiency of the inputs consumed, compared with standards set or with the consumption expenditures made by competitors. In doing so, costs stimulate enterprises to introduce technical progress, increase the skills of workers to scientifically organize production and work and to maximize the efficiency of production factors. Professor Michael E. Porter has in view the fact that the relative cost position of a firm depends on "significant driving cost forces." The driving cost factor forces determine the structure of the cost of a service and are differentiated by the degree of control a company exerts over them. Driving cost forces determine the activity of cost behaviour, reflecting any links or interdependencies that influence it. Cost performance of firms in each of its separate major activities cumulates to determine the relative cost position of the firm" [8].

We can thus say that ***the main factors that determine actions of cost reduction*** are: *Limited character of resources*, which brings a rational as possible usage of these; *A good as possible valuing of production factors* which involves a raise of revenues in the conditions of not modifying sales costs; *Raising the efficiency of firm activity* which attracts with it a raising of profit. In tests carried out we can observe that the main ways of reducing cost are based on analysis on labour productivity, direct and indirect reduction of costs that relate specifically to the consumption of materials and general administrative expenses of production.

In what concerns ***reduction of costs with material expenses*** in the mining industry, one can infer the following *directions*: Consume of raw materials that are found in great quantities and at costs as reduced as possible; Modernization of extraction technologies by purchasing tools at a good price and which correspond technically; Re-evaluation of consumption norms; Increasing the rotation movement of the circulating capital; Using as extensive as possible the tools of production with the purpose of reducing the degree of amortization which befits the unity from the final product - the coal. Of the total consumption incurred in the production of the coal mines, the biggest share was found to be that of the material costs, and thus they should be the main direction to reduce costs. To ***reduce costs of live labour*** mainly aims at increasing labour productivity through the following *methods*: introducing technical progress; raising the preparation level and perfection of the hired personnel;

stimulating employees through a system of bonuses; raising work condition quality and of the social climate inside the unit. Desirable is the fact that labour productivity growth rate prevails wage growth rate, thus demonstrating leadership and ability to efficiently use human resources and the pay level of the company.

Another target of reducing cost of production is *the general administrative costs* can be reduced in particular by increasing the volume of production, a reduction of administrative machinery, mechanization of calculation, the obvious statistical and planning but also through a reduction in office supplies with strict rules and norms to domestic administrative costs. Taking into account cost and other areas over which it can act to reduce production cost and the instruments used we can summarize schematically the effects that occur by applying these measures thus [1]:

Table 1. Effects that occur by applying certain measures

Area of action	Instruments used	Effects
<i>Material resources used</i>	<ul style="list-style-type: none"> • Lowering consumption of raw materials, materials, fuel, energy and water, etc; • Using new or unconventional resources that are cheaper; 	<ul style="list-style-type: none"> • Modifying proportions between material resources and wages ; • Reduction of total costs and of prices, • Raising the market share;
<i>Work productivity</i>	<ul style="list-style-type: none"> • qualifying, re-qualifying and perfecting the workforce; • intensive use of machines, tools, equipments, installations; • ensuring rhythmicity in supplying work places with the factors of production; • raising the degree of organization and work discipline; 	<ul style="list-style-type: none"> • growth of physical production per worker and per time unit ; • reduction of costs and growth of profit; • growth of net profit,
<i>Capacity of production</i>	<ul style="list-style-type: none"> • enlargement of capacity of production; • growth of degree of utilization of the capacity of production; 	<ul style="list-style-type: none"> • growth of physical production; • growth of total costs; • reduction of unitary costs and of costs for 1000 lei business rate; • lowering of costs on sub-activity;
<i>Quality of production</i>	<ul style="list-style-type: none"> • restructuring and improved management quality of human material resources, organizational processes and management of scientific research; 	<ul style="list-style-type: none"> • increasing costs of prevention and identification of defects; • reduction of costs generated by non-quality;
<i>Introducing technical progress</i>	<ul style="list-style-type: none"> • improving methods for recovery of company resources; 	<ul style="list-style-type: none"> • growth of physical production; • lowering of specific consumption; • growth of profit;
<i>Management activity</i>	<ul style="list-style-type: none"> • monitoring operational expenses for places of work and ways of spending by determining deviations of actual expenditure compared to forecast and detect the causes that have generated these deviations; • use cost information in making decisions based on the detection of relevant, inevitable costs and through cost analysis and investment opportunity. 	<ul style="list-style-type: none"> • identify the causes that increase costs; • relative and absolute economies in the structure of costs ; • eliminating on maintaining in production of certain artifacts.

Reducing cost of production should take place without negative influences on the overall activity of the enterprise, however, some deficiencies may occur such as:

- influence in an overwhelming financial resources of society when they are decided improvement of existing technologies or introduction of new technologies;
- loss of benefits generated by old technology at their replacement with new ones;
- exclusive application of cost-cutting strategy that achieves its purpose only when the manufacturer has become the market leader for cost and able to detect other companies to give up this kind of strategy with cost.

3. CONCLUSIONS

We can therefore say that in essence, to the cost of rational producer behaviour stems directly from its work to the objective - maximizing profits - which has to rely mainly on rationality in mobilizing and allocating resources, the spirit of competition and knowledge-based computing economically. To increase their profits, one would have to increase production volumes sold. How any entrepreneur faces some restrictions, including the limited nature of economic resources and the prices of production factors market data in terms of perfect competition will be able to achieve its purposes by reducing specific consumption of inputs, in other words, increasing the yield factors. Reducing costs of production materials expressed in the same time, rational management of natural resources, and where companies reviewed in November - coal - concern for the natural environment, responsibility for sustainable economic and social development. We can thus say that reduction of production cost is of a major importance for any producer and should be done permanently and with great responsibility, because it represents the way towards a profitable enterprise, a competitive and stable one.

REFERENCES:

- [1]. Barbu, E.C. - *Metode de analiză a costurilor de producție*, Ph.D. thesis, Bucharest, 2004
- [2]. Budugan, D.; Georgescu, I.; Berheci, I.; Betianu, L. - *Contabilitate de gestiune*, Editura CECCAR, Bucureşti, 2007
- [3]. Ebbeken, K.; Possler, L.; Ristea, M. - *Calculația și managementul costurilor*, Editura Teora, Bucureşti, 2000
- [4]. Hayne, P. - *Modul economic de gândire*, Editura Didactică și Pedagogică, Bucureşti, 1991
- [5]. Horngren, Ch., & co - *Management and Cost Accounting 3rd edition*, Prentice-Hall, 2005
- [6]. Iacob, C.; Ionescu, I.; Goagără, D. - *Contabilitate de gestiune - conformă cu practica internațională*, Editura Universitaria, Craiova, 2007
- [7]. Pârvu, F. - *Costuri și fundamentarea deciziilor*, Editura Economică, Bucureşti, 1999
- [8]. Porter, M.E. - *Avantajul concurențial*, Editura Teora, Bucureşti, 2001