

## **COST ACCOUNTING SYSTEM AND ITS ROLE IN THE MANAGEMENT OF ENTERPRISES IN THE IRON AND STEEL INDUSTRY**

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**Abstract:** *The cost calculation system is one of the main systems used by the control departments in modern management according to the enterprise needs. This system has the capacity to solve the main problem which most enterprises face: the control of the costs. This paper's objective is to present how the cost accounting system elucidates, fixes and answers the demands of a modern management for the companies in the iron and steel industry.*

**Key words:** *cost, calculation, system, management, iron and steel industry*

### **INTRODUCTION**

Industry is the branch of economic activity and material production of the national economy that consists in natural resources exploitation activities and processing natural resource and raw material into means of production and consumer goods. The main role of the industry is to ensure with products all the economy sectors and the population current needs.

The enterprise's role prevails in multiple aspects. Thus, the enterprise realizes the most of the products and assistance that now day society requires, it is the main creator of economic substance and added value. The enterprise's performances influence the state and performances of a country's economy and also the life standard of its population since it offers jobs for a large part of the active population.

In our opinion, to conduct and orientate the enterprise's activity towards performance implies research on its current state, using the information to fundament and apply the decisions, management accounting playing a key role in this.

The cost calculation system processes the data regarding the costs of the activities carried out. The analysis of data costs serves to adopt and decide on better decisions with favorable results for the enterprise. The cost accounting system existing in the enterprises permits the study and the monitoring of the activities' profitability thus creating the premises for establishing responsibilities in the executing level or the management level.

The cost is used as fundamental criteria for the enterprise's options and decisions. If we consider the rhythm and the production level in all areas including iron and steel industry this aspect implies an increased responsibility for the enterprise management in order to obtain profitability for all the products fabricated. Reaching these objectives requires adopting an efficient accounting system –planning, supervising, and controlling the costs.

### **MATERIALS AND METHODS**

Our analysis concentrates on steel and iron industry enterprises, with references to the specific of Libya enterprises.

The iron and steel industry as one of the most important strategic industries with a key role in the economical and industrial development in time as the statistics reflect in the majority of well developed countries. At the same time there is a strong connection between the consumed quantity of steel products and the economic rise of a country. This correlation it explains by the fact that steel is widely used in construction and industrial products manufacturing and also consume goods for the population and consequently the activity increment in this domains determines the increment of the steel consumption.

Steel denominates a large family of metals. From the chemistry perspective, steel is not an element like gold or aluminum, but an alloy. All kind of steel are alloys that contain iron, carbon and other elements (nickel, chromium or tungsten). Depending on the percentage of carbon in the alloy, increases or decreases the steel's hardness.

The iron and steel industry represents a sector of maximum importance in the economical development of a country due to the strong connection with many other industries, such as:

- Upstream industries, that help steel industry – mining, refractory materials, ferroalloys;
- Downstream industries that consummate steel like auto industry, naval industry, production of household appliances, canning industry and many of the engineering based industries.

Also there is a strong connection between steel industry and utilities and services projects, such as sanitation projects using steel pipes for sewers, the sector of petroleum and natural gas where large quantities of steel tubes are used in drilling.

In the production of steel, according to data released by the World Steel Association, the ranking is dominated by China and Japan, as shown in Table 1.

**Table 1**

**The top ten countries producing crude steel in 2011**

No.	Country	Quantity (thousand tons)
1.	China	683.265
2.	Japan	107.595
3.	USA	86.247
4.	India	72.200
5.	Russia	68.743
6.	South Korea	68.471
7.	Germany	44.288
8.	Ukraine	35.332
9.	Brazil	35.162
10.	Turkey	34.103

The iron and steel industry is very important for other industries, offering new opportunities of employment, not limiting to satisfy their needs solely but extending to upstream and downstream industries. It is statistically known that a job in the steel and iron industry ensures more jobs as well as the fact that investment in the steel industry opens new opportunities of investment in other branches and sectors, from doubling to ten times increasing in the providing and consuming sectors of this industry.

This industry has employed more than 2 million of people in the world, to whom it adds another 2 millions that works for contractors and four million in the supporting industries.

The cost accounting system helps the enterprise to control and survey the costs, measure the production cost, organizing the administrative decisions, control the costs in the service activities.

The French author H.Bouquin (2006, p.12) considers management accounting as “a system of accounting information aimed at helping managers and influencing behaviors, shaping relationship between resources allocated and the goals that follow.”

The main concern of every enterprise is to cover the costs and obtain a higher profit as possible. In the context of current economy market characterized by globalization and strong competition between the steel industry producers, an enterprise that fails to cover

the production costs it is not profitable and it will end eventually in bankruptcy, as no value is added but rather wasted.

The cost reduction generally and production costs especially represents a very important area of the accounting management of every enterprise with major implication in maximizing the profit.

A distinct feature of a competitive economy is that the selling price of the products is established on the market considering the supply demand and the offer.

To be able to face competition in the field of iron and steel, the producers must sell their products at a lower price than the average ones charged on the market. To reach their objective, they have to manage carefully the production the inputs, because the sale price that represents the producer's profit may be increased due to continuous reduction of the cost of production.

C. Iacob et al (2007, p.14) defines management accounting as a system which calculates and analyses the internal flow in the enterprise. It has to be adapted to the functional structure of the enterprise's activity and the needs of decision-makers towards environmental, economic and technological developments.

The cost counting system has a major role in the enterprise, its objectives can be summarized as follows:

- 1-systematize managerial decisions
- 2-to establish the cost of production for each product, work and service,
- 3-cost control
- 4-support on the decisions on prices of products, work and services
- 5- Analysis of details
- 6-preparing reports for different administrative levels
- 7- Interpretation of comparative data for possible alternative decisions.
- 8- Measurement of analytical results

The cost management plays an important role in the directing the company's activity by submitting periodical reports about cost management to general managers (this reports can be weekly, monthly, half-yearly, yearly, depending on the situation of the company, or a factory within the company, the level of production or price changes, etc.)

The cost management sector presents to the senior management these reports that include costs, list of performance, of productivity so that the administrative sector can establish the aspects of efficiency appropriate in decision making.

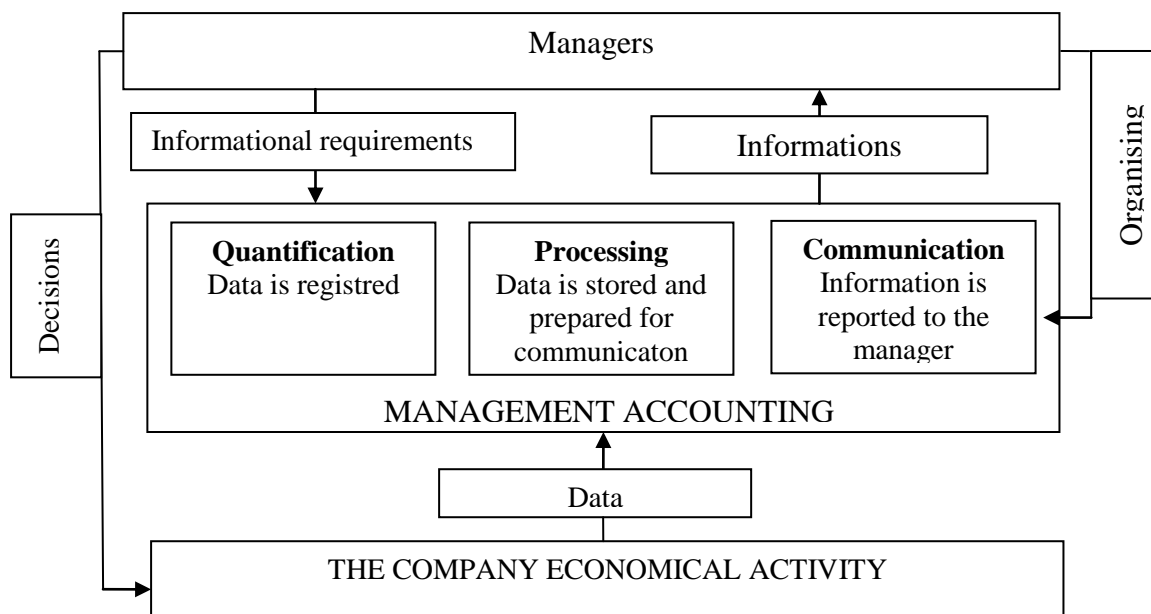
The company management regardless its activity, is based on information that considering their origin can be divided in two categories: internal information (supplied from inside the unit) and external information (collected from the outside the unit).

Cost calculation has a major role in the major economical projects, in particular industries. The larger the size of the project, the more increases the importance of the costs, as a source of important information. Recent studies have put in light the role of the production costs within major industrial companies. Steel is today one of the most marketed material worldwide and is used in the construction of automobiles, railways, buildings, etc.

Achieving a balance between profitability and competitiveness is not an easy target for the producers of the steel industry. To reach this goal requires a careful control in terms of fuel consumption, enterprise resource management, efficiency, productivity and quality of products.

Figure 1 presents the relationship that is established between management accounting and enterprise management.

The relationship between management accounting and management works in two directions. Notice in Figure 1 that the accounting management system collects data from the economic activity of the enterprise. This data are processed in order to obtain information that is provided to the management. For its part, the management adopts decisions regarding the organization of accounting management and decisions concerning the company economic activity and its goal to obtain performance.



**Fig. 1. The accounting information system and economic decisions**

The main roles played by the system of costing in the company’s management in the iron and steel industry are:

- Measurement of cost of production, it contributes to establish the sale price per unit for the product, the cost control by comparing actual figures with standard unit cost figures. It can also be developed a study of the social cost;
- The cost control- it verifies the proper functioning according to the program and the objectives, analyzing deviations from the plan of action , analyzing the causes and taking appropriate measures;
- Rationing the decisions of management and offering assistance in economic policy making.

## RESULTS AND DISCUSSION

In our opinion, the Libyan enterprises suffer from the lack of cost management tools, aspect that influenced negatively the performance of enterprises. The motifs of not using cost accounting system in Libyan enterprises can be summarised as follows:

1. The lack of experienced personnel- the cost accounting system needs an expert in the identification of cost centres, as well as types of costs. Many Libyan companies lack specialists able to manage a cost accounting system.
2. The existence of shortcomings in the organization of cost accounting and cost calculation. In some cases the calculation method used are outdated, implementation of modern methods of calculation is needed.
3. The ignorance of cost accounting by the management of the enterprise: the majority of managers does not know the functions, tasks and objectives of the cost

accounting system and believe that the financial accounting provides all information needed in decision-making. A consequence of this situation is setting the wrong sales prices for products. To the motifs shown above it is added the fear that the hidden reality of the enterprise it will be revealed and difficulties will appear in applying the cost accounting system.

In the Libyan companies, the risks of not using the cost accounting system can be divided in two. On one hand there are economic risks. Bad use of resources for production, non-disclosure of early bad practices may result in medium/large term disposal of the company from the market due to the high prices of the products in comparison to similar products on the market.

The removal of the company from the market has both social and economical effects hard to quantify. On the other hand there are administrative risks. No accounting system means any description of the jobs at the level of the cost centers. The job description helps to evaluate the employers in an objective manner and limits the manager's abuses and subjective assessment.

The organization of management accounting is not dependent by regulated rules, but her organization is necessary because management accounting must be consistent, to facilitate the activities survey related to management and effective use of the unit.

### CONCLUSIONS

The major goals of iron and steel industry in Libya is in particular, the economic growth of the country, as well as the recruitment of a large number of workers, especially since this industry needs a large number of workers. Drawing a comparison between the iron and steel industry in Libya and Romania, we note that Romania has advanced compared to Libya.

Cost counting system is a system which works on the basis of cost analysis to reach the results on the basis of which everyday decisions are made by the leadership of the institution. Also it can be studied and observed the output of the income and determine more efficient ways to organize the institution. It allows monitoring of labor both at the level of execution and management level. Thus cost accounting is a necessary tool in enterprise management.

Cost accounting system can contribute to solving the major problem of the enterprise through three methods (1) improving managerial decisions and determine the optimal direction of the institution, (2) enabling cost analysis of production and (3) support of the price setting decisions for the enterprise products.

We believe that the implementation of the cost calculation system that meets the informational needs of managers is a condition for performance and success in business.

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