EVOLUTIVE PERSPECTIVES OF ECONOMIC ENTITIES THROUGH THE DEVELOPMENT OF ADVANCED MANAGERIAL ACCOUNTING SYSTEM

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Abstract:
The scientific research highlights the necessity of developing a managerial accounting system based on target-costing method. Thus, this model is intended as a catalyst for the metallurgical industry environment heavily affected by fluctuations in the current economic environment. Simultaneously, the research purpose represents the opportunity of awareness that in order to increase the performances of economic entities from metallurgical industry needs to refine managerial accounting by implementing an advanced managerial accounting system.

Key words: *managerial accounting, target costing, competitive economy, metallurgical industry, advanced managerial accounting system*

Jel classification*:* M64

Introduction

Competitive economy has a significant impact on the decisions of economic entities, the main feature of any competitive economy being the autonomy of decision. Economic decisions taken by economic entities producing goods, works and services revolve generally around a so-called "central institution" which is the market, who ultimately validates their decisions. Based on the principles of rationality and effectiveness, the producers and consumers selects from variants of decisions the privileged ones (Horga, Bratu, 2003). Except the syncope generated by global economic crisis, we ascertain from the experience of countries with developed market economy and those that are in transition towards such economy that the advantages offered by a competitive market economy are relevant and with more powerful impact on the socio-economic system than disadvantages that occur unhindered. This fact leads to maintain balance of economic activities.

Among these advantages we must note the following (Giard, 2003): conditioned by the size of profit, individual producers or economic entity is encouraged to take the free decision to produce the amount considered to be necessary, the technical conditions specified for certain categories of beneficiaries and with all the consequences on the effectiveness of the resources used and complexity; competition and prices become decisive for the levers in respect of the cost and efficiency of resource used; competition determines economic entities to open to technological progress, to the default towards innovation; all producers seek to maximize profits, hence the need to determine the structure of production, works and services, and better income distribution; production system, works and services does not exclude the existence of budget constraints generating bankruptcy and new conditions of production and business reorganization; democratic state should be involved only with regard to generating properties, applying regulations and consumer protection

Given the presentation of competitive economy in the current geostrategic and economic context in which Romania is part, we can affirm that the country needs a revival of industry, especially the metallurgical industry, that is subject of our scientific research and for whom we want to validate optimal alternatives for a profitable reindustrialization. By highlighting the importance of revitalizing the metallurgical industry in Romania, we want this research to open new horizons for achieving improvements managerial accounting organization and production, in order to achieve significant performance and also to relocate Romania in the first exporters of steel products with optimal ratio "quality- price". Having carried out a nationwide awareness of the need to revitalize the industry, especially metallurgical industry, it appears particularly the need to reorganize and rethink, both technically, technologically and from terms of accounting economic entities that operate or will operate in this industry. Thus, we emphasize the central objective of scientific research, namely: "The need to rethinking and reorganization the managerial accounting system of economic entities operating in the metallurgical industry through vision provided by Target costing method".

Literature Review

The research context regarding metallurgical industry presents European Union as the second great producer of steel in the world, with a production over 177 million tons of steel per year, representing 11% of global production (Sinteza_consultări_ME, 2013). It is known that the European metallurgical sector is now in a very difficult situation. The current economic crisis has led to a significant decrease of production and the associated demand for steel, which remains 27% below pre-crisis level. As a result, several production units have closed or have reduced their production leading to job cuts, therefore in the last years the sector had lost up to 40 000 jobs. The European metallurgical industry is confronting with simultaneous effects of reduced demands and overcapacity on a market of globalized steel, as well as with high energy prices. This industry must invest on order to adapt to ecological economy and also to manufacture innovative products. The Romanian research context presents the metallurgical industry as being privatised at a rate of 100% and the foreign capital being about 80%. In Romania, the metallurgical industry represents an important sector for national economy because this is multiplier for: gross value added, industrial production, jobs, taxes, etc. In the last years it also made about 2% of EU steel production and contributed to the country's macroeconomics indicators (about 8% of industrial output, 11% of exports, 22,500 employees).

Although the main metallurgical companies have been restructured in terms of technological, financial and social spheres, the international economic and financial situation (he fall in the construction market in the entire space of the European Union, the increase in energy tariffs, the increase in raw material prices, devaluation of national currency, etc.) it has directly affected the economic and financial results of the companies working in this field, leading to negative profit/loss accounts. In such context, the development of modern methods of sizing and calculation of costs has become an objective necessity in the efforts of economic entities to obtain competitive advantage. Large companies, mostly from economically advanced countries have built and adopt their own strategies and also new methods of organizing production and cost analysis. Those directly linked to increased turnover and profit, reduced manufacturing cycles and costs, led other economic entities to follow this trend (Dumitru, Ioaneş, 2005).

Major technological and organizational mutations occurred in the last two decades in particular have disrupted production. The development of supply and demand, technologies and competition induces a particular problem in production, regarding the objectives and strategies and also are related with the organizational options. Therefore we emphasize that traditional methods of accounting management in the new global economic context offered by technological and organizational changes,

not always provide the best means for the organization and functioning of an efficient organization and management of production.

Essentially, the continued use of traditional methods of accounting management under the impact of inertia is becoming more and more an obstacle for the progress, approach aimed: organization of production management through workflows, productive approach named just-in-time; organizing cycle "design - manufacturing - distribution" by integrating all the necessary stages in a transversal approach, process; the integration in the process of production of all the external parameters on economic and performance consideration, ensures a more better flexibility in time, space and better efficiency (Diaconu et al, 2003).

The main reasons that marks the limits of using traditional management methods are as follows (Ionaşcu, Filip, Stere, 2002*): i) the use of traditional management methods allows to know the costs on different functions of the enterprise, in reality practical needs are oriented towards determining the costs of different components of the decision-making chain; ii) most costs are determined on the stage of production, respectively predefined time periods; iii) traditional methods of management are focused on the analysis and on cost control established in the execution stages; iv) traditional management methods usually provide information which is regularly used to establish the sales prices*. In the context of increased international competition, companies are forced to maintain their market position, in other words to adjust production according with the new requirements. Simultaneously, it is necessary to calculate and analyse the cost of the various components both upstream and downstream of the product designed and launched; *v) Traditional methods of management are using formulas for distribution of indirect costs which often lead to underestimation or overestimation of costs, distorting product costs and also affecting the actual costs of economic entities, with significant impact on decision-making; vi) generally the cost analysis highlights post-calculation without provisional strategic deviations.* Numerous research undertaken in the light of the new optical, finding methods of cost calculation adapted to the actual informational needs, in the new context of production organization, led us to "target costing" method. This method aims a new management directed toward the market, with great reactivity in customer satisfaction.

Determining costs by using Target-costing method allows prompt and effective organizing management and offers rapid and relevant information necessary for operational management. Target costing method is a cost management tool that reduces the total cost of a product throughout its life cycle, through the integration of a close link between production departments, research - development, marketing, accounting and quality (see Ansari, Bell, 1997). It orients the economic entity towards the market, ensure a dynamic management of costs from the stage of conception by developing a strategic link between company departments and its external factors, creating a relationship of self-control, cooperation and motivation of all staff (Diaconu et al, 2003). Such method fails to outline a management system accounting which requires an evolution of the economic entity, since the adoption and ongoing upgrade production technologies, development of managerial accounting and orientation and proximity to the economic entity of reality, necessity and availability of purchase customers (Dumitru, Ioanăş, 2005). The effects of using and applying the target costing method are the increasing of cost competitiveness and the stabilization of quality (see Rains, 2011). Since this method is customer-oriented, it requires that the company that applies it to meet customer expectations by developing reliable and durable products. Another effect of the application of the method is the software development and product design much shorter, because the effort is more intense for design and product development.

The unit of measure of success for companies that have implemented target costing method is the profitability. All decisions in environmental -a target costing has impact on profit. To be successful economic entity needs to know customer needs, the amount you are willing to pay in order to meet the

need, the volume of product that they are willing to purchase. It should also be well known competing products, functions, features and cost. Finally, after corroborating this information, we can plan and make the product achieve the objectives of quality, cost and speed in design in accordance with market requirements (Robinson, 1999). Convinced that the "Target costing" method is an opportunity and a favourable context for the development of an advanced accountancy management system which can be successfully applied in metallurgy industry, and can generate both regenerate the industry and reposition their main engines of growth and development in the national economy. *Simultaneously, in this scientific approach we launched the hypothesis „It is necessary to become aware that in order to increase performances in an economic entity of the metallurgical industry it takes an optimization in manufacturing accounting", hypothesis that will be tested by using questionnaire.*

2. Research Methodology

Among the data collection methods used in the scientific research by the management sciences, the survey is extremely common. All the more, the survey based on a questionnaire has the advantage of interrogating the people depending on the needs, in a qualitative or quantitative manner. Evidently, the survey method simplifies quite a lot the procedure of the research carried out. During the first, qualitative stage, the exploration of the object under analysis takes place, and then during the second, quantitative stage, it becomes possible to confirm the hypotheses formulated even since the exploratory stage. (Niculescu, Vasile, 2011). An advantage of the use of the method of the survey based on a questionnaire is the fact that, from case to case, the two stages can take place simultaneously, alternatively, or the qualitative stage can follow the quantitative stage to ponder on the results obtained.

The use of a survey based on a questionnaire supposes great attention especially concerning the sample and the interaction between the survey-maker and the respondents. In our case, having determined to use the survey based on a questionnaire, initially our concerns referred to the drafting and optimization of the questionnaire, then we paid attention to the administration of the questionnaire from which we were expecting reliable and valid results. Regarding the drafting and construction of the questionnaire, there are no clear procedures certainly leading to the best questionnaire. Depending on the existing needs and the recommendations made, we have reached the conclusion that we would draft a questionnaire with 14 questions, based on scores and addressed to a sample of 300 people coming from 3 work groups, depending on the size of the economic entities in the area of South Muntenia The features recorded for the study undertaken on the occasion of the research are three, namely: tuition domain (economic, juridical, technical, socio-humanities, other), the position held in the economic entity (accountant, economist, head of financial-accounting office, head of financial-accounting service, financial-accounting director) and ancientness in this position (under 1 year, 1 – 3 years, 3 – 5 years, 5 – 10 years, over 10 years).

3. Results

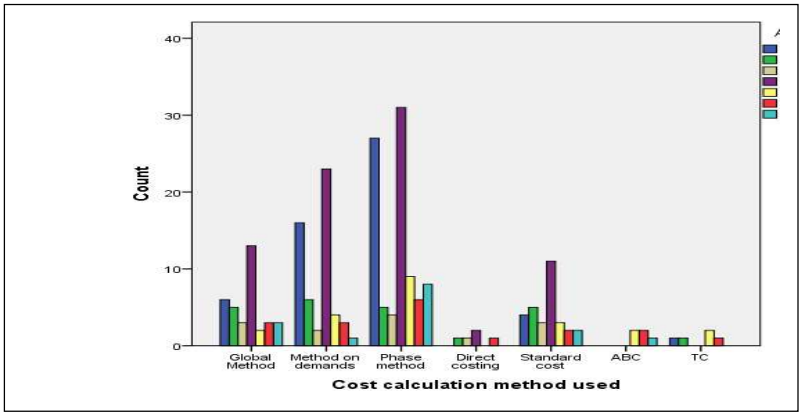
Regarding the questionnaire used as a working method, responses were received through direct questionnaires through courier services or using email. Our intention, at the beginning of this approach, was to complete 300 questionnaires, yet after the centralization of the answers received, we reached a number of 258 questionnaires (an answer ratio of 86.00%). Out of these 258 questionnaires, we noticed that 33 were not filled in adequately or not all the answers were filled in, so we excluded them, which left us with a final number of 225 questionnaires, which led to an answer ratio of 75.00%, a ratio which we consider representative for the sample created. For the interpretation of the answers to the

questionnaire drafted for this case study we used the SPSS (Statistical Package for the Social Sciences) program.

The variables describing the attributes of the sample present the following average values: for the variable tuition domain – 1.40, for the variable position – 2.32, and for the variable ancientness – 3.68. The standard variations of these variables have the following values: tuition domain - .687, position 1.155, and ancientness – 1.345. The next 11 questions of the questionnaire on management accounting organization and optimization in the manufacturing sector of the metallurgical industry concerned the method of calculation of the manufacturing costs, the advantages provided by the calculation methods, the weight of the products' costs in the total of the expenses, the approach of the Target Costing Method for the optimization of the manufacturing management accounting, the qualitative instrument used in order to collect the data for the "Target Costing" approach, the realization of the market studies in the "Target Costing" approach, the conditions for the determination of the product's target cost, the strategic and operational forecast in the implementation of the Target Costing Method, the analysis plans for the new products, the need to implement a derived optimization model for manufacturing accounting in the economic entities of the metallurgical industry and the need to know the increase in performances of an economic entity of the metallurgical industry as a consequence of the optimization of its manufacturing accounting through the implementation of the Target Costing Method and the limitations recorded.

Our survey respondents were asked to choose the method of calculation used in the entities from which they originate (overall orders, on stages, direct-direct costing, cost, standard cost, ABC, marginal cost, target costing, or some other method). The top three methods of calculation of costs used in the economic entities of those 225 respondents are presented as follows: method on phase-40% method commands-24,5%, i.e. a global method-15.6%. The hierarchy of these advantages is the following: the low costs are the main advantage offered by the calculation method (35.6%), followed by simplicity (24.0%), promptness (10.2%), efficiency (9.8%), efficacy (8.0%), usefulness (6.7%), and viability (5.8%). (See Figure 1.)

Figure 1. Variable Correlation method vs. advantage of the method



(*(Source: processed by the author)*

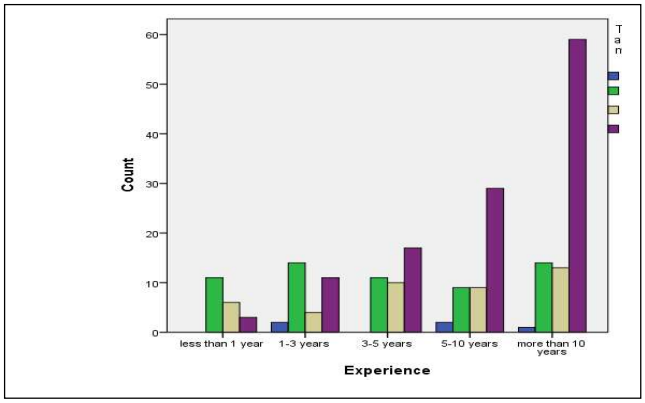
Next, we wanted to know the respondents' opinion the impact of the use of the Target Costing Method on the optimization of the manufacturing management accounting and implicitly on the increase of the performances in the economic entities from which the 225 respondents come. This impact is great and very great one according to the vision of about 80% of the interviewees. We consider this as something normal, the main reason of the adoption of the Target Costing Method being the projection of the products' costs before their introduction in manufacturing, consequently avoiding the introduction

in the manufacturing stage of those products whose profit margin is low. Only 12 respondents out of the total of 225 consider this approach as one with a very low impact on the increase in performances for the economic entities the respondents come from.

As a sequel to the previous question, the respondents had to choose the most significant and performing instrument with a view to collecting data for the "Target Costing" approach. The questionnaire was the instrument mentioned the most often in the answers received, over 110 respondents, corresponding to a percentage of 49.8% of interviewees agreeing with this thing. The next instrument in the respondents' options was a combination between the individual interview and the group interview (11.6%), then the forecast techniques were nominated as an important working tool by 17.3% of the respondents, whereas 12.0% of the total of the respondents consider the individual interview as being important.

The profit awaited by the economic entity is the main element considered when setting the target cost of the new product. This is the perspective of 37.8% of the total of 225 respondents. Another important element is the analyses for a global managerial approach of the project – 30.2%, while the clients' desires are appreciated as being important in the determination of the target cost only by 21.3% of all the respondents. The respondents of the study drafted on the occasion of our scientific approach were kindly asked to express their perspective on the need and opportunities of the implementation of a derived model of optimization for manufacturing accounting in the economic entities of the metallurgical industry.

Figure 2. The need to implement an accounting model production processing derivative using the crosstab evaluation from the experience vision

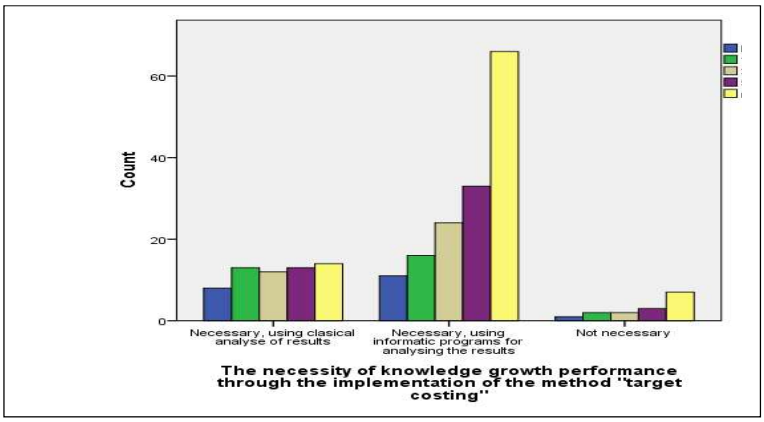


(Source: processed by the author)

Over half of them (119 respondents corresponding to a percentage of 52.89%) appreciate that the implementation of such a model is necessary only if the limitations and advantages of the respective model are known in advance, which denotes a certain trace of prudence, which is normal from our perspective. It should be mentioned that an extremely small percentage (2.2%) of all the respondents do not consider it necessary or opportune to implement such a derived model (Figure 2.).

The last question of the questionnaire drafted in order to study management accounting organization and optimization in the manufacturing sector of the metallurgical industry concerned the way the 225 respondents consider that the performances the economic entities they are coming from can be increased, by the implementation of the Target Costing Method (See Table 2 and Figure 3.)

Figure 3. The need of knowledge growth performance through the implementation of the method "target costing" using crosstab evaluation from position held



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Since we are living in the knowledge society and the role of the new information and communication technologies is growing more and more, over 65% of the respondents consider that these performances can be improved using in the analysis of the results specialized IT programs.

4. Conclusions

The performances of the economic entities are directly influenced by the modification of the costs. If they maintain a consistent cost control, the entities of the metallurgical industry have the possibility to track and analyze, at the same time, the activity they develop and will be able to identify, under these circumstances, various ways of reducing their costs or increasing their performances. Analyzing the way management accounting accomplishes its role and attributes for which it was conceived, offering support in the decisional process, on the level of the entities of the metallurgical industry in our country, we identified the following situation: on the one hand, the interest of these entities for the organization of their management accounting in order to use the data for different analyses is low, and, on the other hand, even where it is organized, it is rather the traditional calculation methods that are mostly applied. One of the methods applied is the global method, which develops a traditional conception regarding the processing of the indirect expenses, the latter being assimilated to the direct expenses, without insisting on a rigorous manner of attributing them on the calculation objects. For this reason, the cost calculation and analysis need to be realized in agreement with the company's strategic horizon: the life duration of a product, the stages of realization of certain technological innovations, the strategic stages of equipment renewal etc. The results obtained following the application of the method of the survey based on a questionnaire for the use of the quantitative methods in the approach of extending the Target Costing Method in the metallurgical industry clearly highlight the need to use this method. This means that the first operational objective of the present scientific research has been attained and the first hypothesis of the scientific research has been confirmed, namely, "*It is necessary to become aware that in order to increase performances in an economic entity of the metallurgical industry it takes an optimization in manufacturing accounting*"

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