The Impact of Managerial Accounting Tools in Decision-Making

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Abstract: Any decision involves an elementary logical decision-making process that consists in gathering information, choosing certain alternatives, taking into account future benefits and costs, and evaluating the results obtained. The decision-making and the initiation of actions for the operationalization of the decisions are made under the conditions of more and more intense challenges and pressures, inside and outside the organization, therefore one of the solutions the manager has to use to make her own activity more efficient is to harness relevant and operative information. It is important that a decision is taken when there is a discrepancy between the current situation and the desired results, and the decision-maker is aware of this discrepancy and is obliged to change it. The paper presents general aspects of managerial decision making, useful tools for managers to analyze the influence of cost factors in decision-making, the way in which accountants prepare their useful information in substantiating decisions. Of the many instruments used for decision-making, the scoreboard plays a fundamental role. The dashboard is recommended in any managerial situation where managers adopt a certain decision-making behavior. In the category of management tools used in the management process, the dashboard is one of the methods that should not be missed by any manager.

Keywords: *management accounting; decision making; accounting tools; dashboard; performance.*

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1. Introduction

Changing and continual development of organizational activities and processes, savings, production and product development conditions entails continuous monitoring and development of managerial accounting tools. An objective primordial for management accounting is the way to assess the overall costs needed to provide a product that recognize the demand to implement and design new managerial accounting systems [4]. A real challenge for managers is to identify from a multitude of management tools that can be used today, those really important to stay afloat. In the majority of economic entities, there appear problems regarding supply, stock management, transport, production distribution and, more recently, cost minimization in supply budget organization and management [10]. Therefore, management control must intervene to enable business to take action and make decisions so that businesses can achieve their goals in the shortest possible time. The issue of management control is an actual one, being present in all aspects of economic and social reality, which can be exercised at all organizational levels, thus becoming an essential factor in the functioning and development of the enterprise.

2. Problem Statement

2.1. Literature review

In the economic literature in our country the performance of the enterprise is defined: as an economic entity is performing if it is both efficient and profitable, the recorded productivity being the means exploited to achieve the results and the ratio between the results obtained, and the effectiveness constituting the ratio between the results found and the results discovered [12]. The financial performance is a measure of the company's total business [5], and has to be appreciated in relation with the factors that influence it [14]. Against the increasing acceptance of the latest instrument boards in the two universal speciality, of literature and country literature there is still an ample disorientation. Frequently asked query consists of: What represents a instrument board and what is the contrast among scoreboards and instruments boards? Which kind of businesses performance data should an instrument board include? There are also important questions about implementing them positively, for example: What is the way to find out the number of performance indicators to be included? Who in the

organisation needs to benefit from this performance instrument boards and where in terms of management level?

The correct solution regarding the above questions are hard to find depending on abounding diversity for example the type and size of the work it is commerce of choice, the bureaucratic structure, the formality of the decision making process, the amount of the administration information systems, etc.

Multitude biographers both global and national levels tried to get answers. Hence, Wane W. Eckerson in the book named Performance Dashboard [6]. Aligning, surveying and administrating your businesses eliminates many confusions regarding performance dashboard, addresses the most important subjects, also providing answers for most important questions. The book also produces instrument board using three sets main functionality: business actions and monitor critical business processes using business performance metrics that generate notifications when potential issues appears, examine the source of problem generation, by investigating timely and most important information from numerous aspects and in detail, processes for making the most appropriate decisions, optimizing the performance of the company, but also directing the economic entities in the true way. According to author Ron Person, in his book Balanced called Operational Dashboards and Scorecards, he discusses about a line between two important tools, namely, the dashboards and the performance boards. The author considers that the scorecards could be both tactical and operational, scorecard operate strategically. It then refers to the logical framework created so that the use of the dashboards to achieve the desired performance of any company.

The universal literature in România has many important authors who show an interest in the instruments that generate the performance. For example, Ion Verboncu is a renowned author who in his book The Dashboard, Theory, Methodology, Application, presents the essential aspects of the development of an improved dashboard, presents the relationship between, the dashboard, the information systems and the temporal dimension of the activity a manager. It also describes a practical content of the dashboard, which contains customized aspects to achieve performance to perform various types of management functions within an economic entity. However, in our country there is no statistical approach to the problem of the paintings used to obtain the performance used in economic entities enterprises.

The novelty brought about to fit our work into the canons of science is the graphs of graphical indicators that help managers quickly observe the performance of the enterprise over the three analyzed years 2014-2015-2016.

2.2. General aspects of managerial decision

It is unanimously acknowledged that managerial decisions and decision-making are the key points of each economic entity around which all the activities of collecting, processing, analyzing, interpreting, centralizing information revolve. The most important person in an organization is the manager because the quality of his decisions depends on his economic performance. The decision-making and the initiation of actions for the operationalization of the decisions are made under the conditions of more and more intense challenges and pressures, inside and outside the organization, therefore one of the solutions the manager has to use to make her own activity more efficient is to harness relevant and operative information. It is important that a decision is taken when there is a discrepancy between the current situation and the desired results, and the decision-maker is aware of this discrepancy and is obliged to change it. An entity's management becomes effective when well-grounded decisions are made based on conclusions or findings that are formulated as a result of a detailed study of technical, economic and organizational phenomena and processes, as well as the effects they generate by knowing the causes determined them [1].

2.3. Dashboard- a modern tool in decision making

The Dashboard is a tool for measuring the performance of others, especially in France and continental European countries since the interwar period, to combat the inefficiencies of the accounting system and the need to correlate other management tools (costs, budgets)[2]. A dashboard is a set of pertinent information, concerning the results obtained in the leadership domain, the information being presented in a pre-established synthetic form and operatively transmitted to its beneficiaries [3].

The dashboard is made up of indicators that are presented in a synthetic manner, with a correlated periodicity, to allow any responsible employee to respond quickly [8].

The management controls cover and diversify at the same time the analysis of the past and the foresight of the future. Management control tools that have an important role in decision-making can be grouped as follows [7]:

- Budgets and Budgetary Control (performance piloting indicators)
- Costs (Calculation and Analysis by Management Accounting)
- Dashboard and scorecard balance (performance monitoring and reporting)

- The notion of Dashboard has appeared in France since the interwar period. With less and less time available to address complex, strategic tactical and with a major impact on the functionality and effectiveness of the firm, managers are turning to the Dashboard.

The Dashboard provides an overview of the enterprise's activity through a system of indicators used to evaluate, control and regulate the activity of the business, and focuses the attention of the key stakeholders on the key objectives to achieve the set goals. It also presents in a precise and rapid form the incidents that may endanger the achievement of the proposed objectives.

The Dashboard transpose the mission and strategy of an enterprise into a set of performance indicators that provide the framework for strategy implementation. The scoreboard emphasizes both the achievement of financial and non-financial objectives. The balanced board measures the performance of a business from four perspectives [9]:

- Financial - which evaluates the strategy's profitability;
- clients - identifying target market segments and measuring enterprise success on these segments;
- The internal economic process - it involves sub-processes within it, namely the process of innovation (cost reduction by improving the technological process), the operational process (the strategic initiatives can focus on the quality of the production, the reduction of the delivery time to the customers, the observance of the delivery term) - sales (how a product responds to customer needs);
- Learning and growth - which can target employees' capacities through employee education, qualification levels; The capabilities of the information system measured by real-time feed-back; Motivation, measured by employee satisfaction.

The dashboard must contain information that is strictly necessary but sufficient to make effective decisions possible. The information inserted in the Dashboard can be presented in several forms: a table of values consisting of significant set of assemblies with a predefined structure; Graphs based on value tables; Indices calculated as the ratio between the values of two elements characteristic to an activity; Combined sheets consisting of a graphical representation and a set of values embedded in a table.

The chosen indicators can be expressed by graphs, which allow a quicker view of trend changes. The graphs used can be varied, but it is advisable to retain the most representative and essential ones in relation to the visualization indicator.

The design of the Dashboard is a preparatory but fundamental step in ensuring the success of the use of the Dashboard as a management tool, the main aspects of which are related to:

- Establishing the organization chart, which consists of a formal presentation of the tasks that must be carried out efficiently and the communication must exist between the hierarchical levels and the sectors of the activity of an economic entity.
- Establishment the compartments and establishing the specialists who will have attributions regarding the design and guarantee of the logistics necessary for the functioning of the dashboard.
- Fixing the objectives and compartments of the economic entity, but also of the objectives related to the elaboration, completion, use, reporting further of the instruments.
- Drawing up a specific deployment, competencies and responsibilities to enable them to achieve their goals.
- Specifying in detail the duties, attributes and obligations of each compartment compromised in the procurement of data, the completion and transmission of data or models, the use of data characteristic only of the dashboard.
- Establishing the informational requirements of the clients, in various hierarchical hypostases. Of course, it will start the aspects for setting the post-individual objectives, attributes, abilities and obligations.
- Specifying indicators and ways to measure their objectives and accomplishment. Choosing them can allow the competent manager to raise awareness and focus on short-term actions by evaluating the key points. Thus, managers perform an analysis of the indicators that are best used to evaluation of the key points obtained.
- Collecting information - ensures the existence of the informarion in a chosen period of time by calculating the necessary indicators and by measuring the high priority of the activities undertaken.
- Properly writing of a Dashboard and using information - involves presenting the indicators in the form and timing established to allow quick and efficient action, thereby establishing the final shape and setting out the operating rules of the Dashboard.

Another instrument of accounting management and an evolved Dashboard, Balanced Scorecard, was developed in 1992 by David P. Norton and Robert S. Kaplan [13]. Balanced scorecard is: a set of measures that give top managers a quick but complete view of business [11].

The Balanced Scorecard shows the following interests: It is helpful in implementing the strategy because it allows the best communication of the strategy to the units. Often leaders limit their messages to strategic intentions. This attitude is insufficient to convey clear guidelines. The scoreboard expresses the strategy in concrete objectives and specifies the cause links between them. It usually provides the rules for the execution of the project. This tool better informs staff about the results of the efforts, and this should mobilize them more. It allows the concentration of resources on the most relevant strategic initiatives. It is an aid to the validity of the strategic option's relevance because the prospective or balanced scoreboard aggregates indicators on all critical aspects of strategy implementation, with emphasis on more target-oriented indicators, the weaker field becomes easy to identify.

The balanced scoreboard also has certain limits because the distinction between action and outcome indicators is often ambiguous. Most of the indicators are logging indicators, which concern financial performance, and the main indicators are related to internal processes and organizational experience. If we refer to client-related processes and competence development, the Balanced Scorecard uses a processual perspective. But this may contradict the vertical logic of budget system tools. Another limit on the Balanced Scorecard is that it allows for better monitoring of the strategy, but does not dispense with a surveillance system for easier development. Another negative aspect of the dashboard is that the indicators used do not, however, inform about the factors of environmental change.

3. Research Questions/Aims of the research

From the desire to add value in a very difficult but very beautiful field, such as management accounting, and the desire to generate knowledge useful to the academic environment, the present scientific approach aims at achieving the following objectives:

The first objective is to present the general aspects of the managerial decision. Through the second objective of this scientific approach, we focus on management accounting tools in decision-making. To highlight the importance of managerial accounting tools in our decision-making process, we will look at one of the most important tools, namely the dashboard.

4. Research Methods

The object of scientific research is the speed of decision-making with the help of the Scoreboard. This is a set of current information, presented in a predefined form, referring to the main results of the activities under consideration and to the main factors that make their effective performance conditional.

The hypothesis of the scientific paper is: The results transmitted using the graphs of the Scoreboard determine the decision making.

The question of the research is given by the question: is the Dashboard a tool that ensures decision-making in the shortest possible time for the efficiency of the company's activities?

The methods of knowledge that we are considering to verify hypotheses are quantitative methods combined with qualitative ones.

The qualitative methods used are the observation of data that takes place at the headquarters of the company by observing financial information, statistical methods (indicators, absolute deviations, and relative deviations), interpretation of indicators using strengths and weaknesses. Other methods used are exploratory, making in this study the data analysis, a case study, results of study, the elaboration of the Scoreboard for the responsibility center of the Technical and Production Division.

One of the processes of organizing and systematizing the information is the tightening of the data taken from the financial statements so that, after analyzing the data contained therein, we can formulate conclusions to be useful arguments. We will also use charts and charts, which are among the most suggestive tools for viewing dashboards.

Scientific research has been carried out over a period of 3 years at a cold rolled stainless steel sheet and strip producer.

The indicators used in the case study developed are:

- Production achieved (Pa), which is calculated by formula:

$$Pa = Ps + \Delta St + IP,$$
 where: Ps=the production sold, ΔSt =stock variation, IP=immobilized production.
- The value of fixed assets.
- Share of fixed assets in total assets (SFATA), which is calculated by formula:

$$SFATA = FA / TA * 100,$$
 where: FA=fixed assets, TA=total assets.
- Expenditure related to the subactivity (ERS), which is calculated by formula:

$$ERS = FC * (1 - APL / NPL),$$

where: FC=fixed costs, APL=Actual production level, NPL = the normal production level.

- Capacity utilization rate.
- The efficiency of using fixed assets according to turnover (E), which is calculated by formula:

$$E = (T / FA) * 1000,$$

where: T=turnover, FA=fixed assets.

- The efficiency of using fixed assets according to the production achieved (E), which is calculated by formula:

$$E = (O_{ex} / FA) * 1000,$$

where: O_{ex} =output of the exercise, FA=fixed assets.

5. Findings

In order to present the importance of the dashboard in the decision-making process, it was proposed to draw up the dashboard in the technical and production direction. The main objective of the Technical and Manufacturing Directorate is to ensure an optimal level of production and maximum use of existing production resources.

Production is the functional area that defines processes and methods to create end products such as goods or services. The performance indicators in production refer to ensuring the quality of the production process, the efficiency and productivity of the production factors, as well as the quantity and quality of the products produced. Labor productivity is the effectiveness with which a certain amount of workforce is used. It is appreciated, either by the quantity of product obtained or by the consumption per unit of product. The indicators underpinning the Technical and Manufacturing Directorate of a company producing laminated stainless steel sheets and strip are illustrated in the Scoreboard No 1 – Technical and Production Division. The study was conducted at a laminated stainless steel sheet and strip company, as we considered steelmaking to remain a labor-intensive industry but also one of the key sectors of the economy. The steel industry is one of the most developed branches in the world, accounting for more than 75% of the value of the entire metallurgical industry. Moreover, in Romania this branch is strongly developed. : In Romania, iron and steel is an industrial branch that occupies an important place in the economy, so the companies dealing with it are advantaged because they have ensured the dissolution of the products, which leads to the maximization of the production process.

Table 1. Dashbard - Technical and Production Division

INDICATOR	2014	2015	2016	2016-2014
Production achieved (MI EURO)	156,591.00	154,273.00	141,736.00	-14,855.00
The value of fixed assets (MI EURO)	185,128,00	164,576.00	175,657.00	-9,471.00
Share of fixed assets in total assets	76,7.00	75,91.00	79,47.00	2,6.00
Expenditure related to the subactivity (MI EURO)	22,288.00	14,721.00	14,772.00	-7,509.00
Capacity utilization rate (%)	85.00	90.00	90.00	5.00
The efficiency of using fixed assets according to turnover (‰)	850.00	991.00	856.00	-13,4.00
The efficiency of using fixed assets according to the production achieved (‰)	845.00	937,3.00	806,8.00	-38,9.00

By analyzing the indicator of output, we can deduce that the unfavourable evolution of the output of the exercise is due to the decrease in the number of employees, but also due to the global economic context. Appropriate management of staff policy and use of resources to maximize efficiency is recommended. After analyzing the indicators regarding the value of the fixed assets and the share of the fixed assets in the share of the assets, an unfavourable evolution of the fixed assets value, but favourable of their weight in the total assets, is observed. It is recommended that the trend in the value of fixed assets be maintained, which means maintaining production capacity. After analyzing the indicators regarding the expenditures related to the sub activity and the efficiency of the use of the fixed assets according to the turnover it is noticed that the fixed assets are not efficiently used in the production process. After analyzing the indicators regarding the expenditures related to the sub-activity and the degree of application of the being capacities, as can be seen, the degree of utilization of the existing capacities increased by 5%, hence the decrease of the

expenditures related to the sub activity. The recommendation is to maintain the increase in the use of existing capacities, which implicitly reduces the expenses related to the sub activity. By analyzing the indicators regarding the efficiency of the use of fixed assets according to the turnover and the efficiency of the use of the fixed assets according to the obtained production it is noted that the fixed assets are not efficiently used in the production process. It is advisable to verify the use of fixed assets and to make the best use of them. It is advisable to verify the use of fixed assets and to make the best use of them.

Chart no.1 - Evolution of indicators for the Technical and Production Division

In the graph above, Chart no. 1 - The evolution of the indicators regarding the Technical and Production Division, it can be seen that the production achieved was decreasing, reaching in 2016 below the level of 140 million euro; the value of fixed assets declined in 2015, rising by about 10 million euro in 2016, but still below the 2014 level; and spending on sub-activity declined in 2015 as compared to 2014, in 2016 increasing slightly over the previous year, not exceeding the value of the first year under review.

6. Conclusions

Companies could use the scoreboard because one of the many advantages of using it is to present the operative, relevant information about

the main aspects of the enterprise, namely: the evolution of the customer perceived product quality, the evolution of the average productivity, the evolution of the expenditures related to the sub-activity, interim management, evolution of profitability rates, evolution of investment grade. The effectiveness of viewing the key issues faced by the company with the help of Scoreboards, but also drawing attention to the critical aspects and areas that managers need to focus on are all the benefits of using the Dashboard. After analyzing the results of the performance assessment of the responsibility center - the technical and production direction for the years 2014-2016, it is clear that its situation is not a good one. The hypothesis of scientific research is valid because it is possible to make decisions by using the dashboard. For an economic and financial recovery, the following proposals are listed: reduction of production costs, both in the production phase and supply through advantageous negotiations on the main materials and raw materials, but maintaining the quality-price ratio, increasing the degree of use of existing capacities, maintaining high investment, increasing production. After analyzing the results of the performance assessment of the responsibility center - the technical and production direction for the years 2014-2016, it is clear that its situation is not a good one. For an economic and financial recovery, the following proposals are listed: reduction of production costs, both in the production phase and supply through advantageous negotiations on the main materials and raw materials, but maintaining the quality-price ratio, increasing the degree of use of existing capacities, maintaining high investment, increasing production.

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