

# THE SCOREBOARD - A TOOL IN MANAGING THE ECONOMIC ENTITIES FOR THEIR PERFORMANCE IMPROVEMENT

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## Summary

*The Scoreboard is the tool that emphasizes the way of generating actions to improve the performance of the economic entity<sup>2</sup>. The use of the scoreboard as a tool of leading the economic entities is recommended in any analysis or managerial activity in which managers point out the effectiveness of the continuation under the same or other conditions within the economic activity, based on the information regarding the results of the various activities' implementation.*

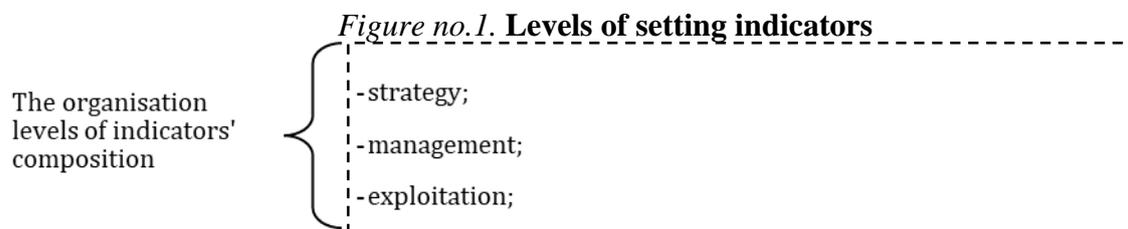
**Key words:** *scoreboard, performance, management, entity, strategy.*

**JEL Code** *M41 – Accounting*

## 1. Introduction

From a conceptual point of view, the determination and reporting of the global result serves to present in a single (integrated) size all the elements of income, expenses, gains and losses, aiming at increasing transparency in financial reporting. The replacement or completion of the traditional income statement with a global format that integrates in the current result including operations directly in own equities, considers that the relevant measure of performance is not given by the net result indicator, but by that value that measures variation equity (valued at market values), or in other words, the enrichment of shareholders.

The structure of a scoreboard is designed to track physical and economic indicators in order to achieve performance, but also to anticipate it, and the composition of indicators at ascending and descending level determines all three levels of the organization of an economic entity, as shown in the figure below<sup>3</sup>:



*(own source adapted from : Ristea, M., Olimid, L., Calu, D. A., Sisteme contabile comparate, CECCAR Press, Bucharest , 2006, p. 347*

The scoreboard finds its usefulness in different contexts<sup>4</sup>, as shown in Figure no.2.

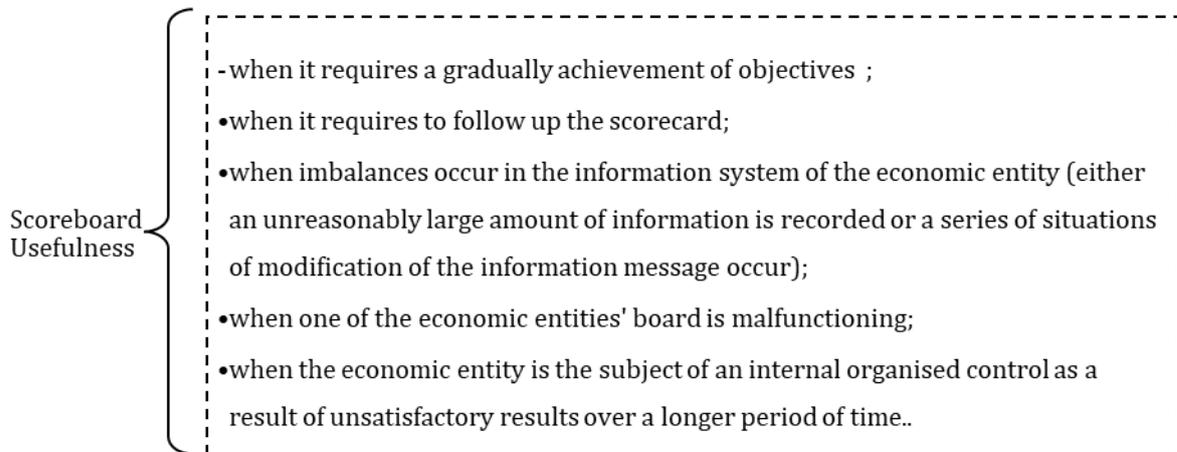
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<sup>2</sup> Căpușneanu, S., Elemente de management al costurilor, Editura Economică, București, 2008, p. 297

<sup>3</sup> Ristea, M., Olimid, L., Calu, D.A., Sisteme contabile comparate, Editura CECCAR, București, 2006, p. 347

<sup>4</sup> Cucui, I., Man, M., Costurile și controlul de gestiune, Editura Economică, București, 2004, p. 263

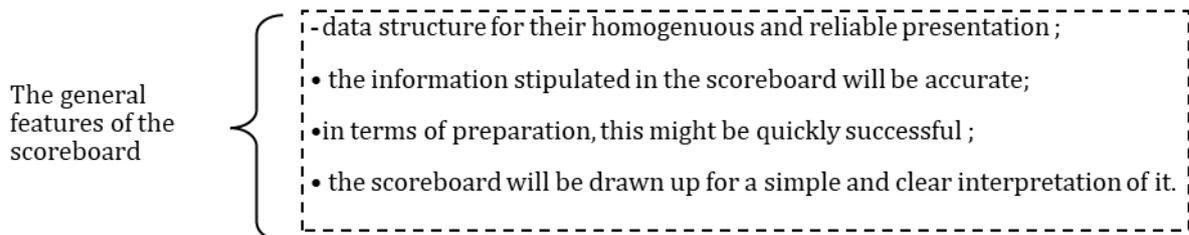
*Figure no.2. Situations of scoreboard usefulness*



(own source: *adaption from: Cucui, I., Man, M., Costurile și controlul de gestiune, Editura Economică, București, 2004, p. 263*)

The role of synthesis for the activity of the entity that aims to achieve efficient strategies determines the scoreboard fulfillment of a series of features presented in figure no.3

*Figure no.3. The scoreboard features*



(own source from: *Jaba, O., Gestiunea producției și operațiilor. Metode și tehnici ale managementului operațional al producției, Editura Economică, București 2002, p. 356*)

## 2. Literature review

Considering the scoreboard, **the financial analysis** is defined as the study of an enterprise by an outside observer (or from within the enterprise) that can be a potential investor, a banker. or any other entity eager to know the financial situation of the undertaking.<sup>1</sup>

The occurrence of the analysis as a research method was outlined in order to break down a phenomenon or an activity in its component parts, in order to better know them. We can consider of utmost importance the approach of financial activities or phenomena, by using a set of concepts, techniques and instruments <sup>2</sup>, (including the scoreboard), afterwards the focus on the consumption of resources and interpretation of the results based on cause-effect or structural-functional relationships.

In an economic environment pressed by the globalization phenomenon, whose tendency is to turn complicated thing into a complex one, the economic and financial analysis has the role of explaining the economic and financial phenomena through the relationships delimited within a set of elements (structural analysis) and through the factors of influence

<sup>1</sup> Forget J. (2005) *Analyse financière. De l'interprétation des états financiers a la compréhension de logiques boursières*, Paris: Editions d'Organisation, pg. 13

<sup>2</sup> Cohen, E. (2006) *Analyse financière*, Paris: Economica, pg. 63

(factorial analysis). However, the analysis can be carried out in various forms (types) in order to respond as well as possible to the established objectives, and the stages of its achievement can be adapted to the concrete economic conditions.

We consider that regarding its importance, the activity of economic and financial analysis, on the basis of the scoreboard as well, is placed in the middle of existing links between the functions of the enterprise and the functions of the management meaning that the achievement of any management's attribute implies the conduct of economic analysis as an indispensable tool for substantiating decisions.

In the current conditions of increasing the complexity degree of the enterprises' economic activity as well as the decision-making, the economic and financial analysis is positioned as an essential coordinator of the global strategic diagnosis, and of the economic-financial ones in particular. The financial analysis aims at an in-depth understanding of the financial balances and dynamics of entities.<sup>1</sup>

### 3. The relevance of reporting comprehensive income

The methodology of the research designed for this study and related to the proposed objectives is based on: preliminary documentation, bibliographic documentation, identification of information from financial and non-financial reports that can be useful in this approach, analysis of all the collected information, establishment of ways of interpreting the information and results presenting.

In order to accomplish the research objective, it was necessary an empirical study on the main processes in the entity, by using the scoreboard process, based on the information provided by the accounting model, as well as by involving the descriptive research method as a research method or as a way of knowledge, and the preliminary study to get information and explanations too.

The methodology of using the scoreboard targeted techniques and procedures that proved to be useful as some strengths and weaknesses of the business financial management were established either to maintain the existing strategies or to substantiate new strategies for the entity development.

### 3. The Supply Process Scoreboard

In the supply process, the Scoreboard is a tool to assess the process from the following perspectives: the financial perspective, the quality perspective and the staffing perspective. In the table no.1, such a picture is presented:

*Table no. 1 Supply chain scoreboard within an economic entity of construction field*

Axes	Objectives	Indicators	Weight of indicators %	Score	Predicted score
0	1	2	3	4	5
Financial perspective	Cost cut-offs of raw materials (building materials) by 5%	Raw material costs (mil. lei)	42	5,73	5,66
		Costs of non-compliant procurement (mil. lei)	31	0,29	0,11
		Accuracy of payments to suppliers (%)	17	99,81	99,99
		Inventory (per day)	10	8,00	7,03
Quality perspective	A greater control over the quality of purchased raw materials (timber)	Quantity reduction of non-compliant purchased timber (cm.)	25	70,00	68,00
		Supply and transport infrastructure (cars no.)	25	5,00	6,50
	The improvement of timber supply and transport process	Selection of timber suppliers (no. of suppliers)	25	11,00	15,00
		The improvement of checking the timber acquisition (criteria no.)	25	8,00	11,00

<sup>1</sup> Forget, J. Forget J. (2005) *Analyse financière. De l'interprétation des états financiers a la compréhension de logiques boursières*, Paris: Editions d' Organisation, pg. 9

Axes	Objectives	Indicators	Weight of indicators %	Score	Predicted score
0	1	2	3	4	5
Staff perspective	Programs for professional development	The staff qualification growth (% of qualified personnel)	37	50,00	60,00
		The improvement of negotiation abilities with suppliers (% of qualified personnel)	39	54,00	60,00
		Increasing the motivation of the supply department staff (% incentive)	24	5,00	5,00

(Source: adaption from Mendoza, C., Zrihen, R., Le tableau de bord: en V.O. ou en version américaine? Comparaison entre le tableau de bord et le balanced scorecard, Revue française de comptabilité nr.309/1999, p.64 și Popa, V., Topolică, M., Utilizarea tabloului de bord ca instrument de pilotare a unei organizații parte a lanțului de distribuție/aprovizionare, Conferința Coromar, Iași, 28-29 sept. 2007, p. 360-381 disponibil la adresa [https://virgilpopa.com/old/articole/coromar/2\\_utilizarea\\_tabloului\\_de\\_bord.pdf](https://virgilpopa.com/old/articole/coromar/2_utilizarea_tabloului_de_bord.pdf))

#### 4. The scoreboard of production process

The production scoreboard consists of four perspectives such as: the financial perspective, the quality perspective, the innovation perspective and the staff perspective. All the axes affected in the instrument panel are of the same importance. The production process instrumentation is shown in Table 2:

Table no.2. The production scoreboard within an economic entity of construction field

Axes	Objectives	Indicators	Weight of indicators %	Score	Predicted Score
0	1	2	3	4	5
Financial perspective	Cost reduction of production	Raw material costs (mil. lei)	31	6,90	6,70
		Costs of non-compliant procurement (mil. lei)	16	0,30	0,20
		Salary-type costs	13	4,80	4,58
		Processing costs (mil. lei)	40	14,80	14,59
Quality perspective	The improvement of the production in terms of quality	The waste in production process (% of the production value)	20	0,31	0,10
		Errors in the production process (% of the production time)	20	1,88	0,51
		Optimization of manufacturing time (%)	17	99,00	100,00
		The usage level of production equipment (%)	25	20,00	10,00
		The implementation grade of quality standards (%)	18	90,00	100,00
The innovation perspective	Designing and launching new products	The number of new products created in the last 5 years	16	6,00	5,00
		Investments in new technologies and equipment (mil. lei)	40	210,00	220,00
		Labour productivity (%)	8	90,00	100,00
		The automation degree of production (%)	36	77,00	82,00
Staff perspective	The qualification increasing of the production personnel	The qualification level of employees in production (%)	30	67,00	70,00
		The comparison between the payroll level from production department and the other departments	31	61,00	60,00
		Training programs from the last 5 years (no.)	21	5,00	5,00
		The importance of the management team in the production process (%)	18	66,00	70,00

(Source: adaption from Mendoza, C., Zrihen, R., Le tableau de bord: en V.O. ou en version américaine? Comparaison entre le tableau de bord et le balanced scorecard, Revue française de comptabilité nr.309/1999, p.64 și Popa, V., Topolică, M., Utilizarea tabloului de bord ca instrument de pilotare a unei organizații parte a lanțului de distribuție/aprovizionare, Conferința Coromar, Iași, 28-29 sept. 2007)

#### 5. The scoreboard of delivery process

For the delivery process, the scoreboard targets four analysis perspectives: the financial perspective, the quality perspective, the customer perspective and the staff perspective. The scoreboard of the delivery process is presented in Table 3.

Table no.3. The scoreboard of delivery process

Axes	Objectives	Indicators	Weight of indicators %	Score	Predicted score
0	1	2	3	4	5
Financial perspective	Delivery reduction cost	Delivery, administrative and customer service costs (mil. lei)	34	1,90	1,65
		Inventory costs for finished products put up for sale (mil. lei)	17	0,09	0,07
		Customers' liability costs (mil.)	10	0,20	0,20
		Costs for products promotion and discounts (mil. lei)	20	0,91	0,80
		Wages	19	1,10	1,20
Quality perspective	Improving order management	The non- compliant delivered products (%of sales value)	18	0,90	0,10
		Percentage of unsatisfied customers (% of all customer)	20	3,00	1,00
		Optimization of delivery time (%)	12	99,00	100,00
		The usage level of production equipment (%)	30	12,00	10,00
		The implementation grade of quality standards (%)	20	80,00	100,00
Customers' perspective	Increasing customer satisfaction	Policy of customers' liability (% implementation level)	17	73,00	89,00
		Increasing the market on customers by improving the lead database (%)	38	63,00	80,00
		Level of response to customer requirements (%)	30	83,00	100,00
		The order- delivery cycle (per day)	15	33,00	30,00
Staff perspective	The personnel qualification growth	The qualification level of employees in the delivery department (%)	29	71,00	87,00
		The level of workers' wages in the delivery department compared to the other departments	28	15,00	15,00
		Training programs from the last 5 years (no.)	25	5,00	5,00
		The importance of the management team in the delivery process (%)	18	67,00	68,00

(Source: adaption from Mendoza, C., Zrihen, R., Le tableau de bord: en V.O. ou en version américaine? Comparaison entre le tableau de bord et le balanced scorecard, Revue française de comptabilité nr.309/1999, p. 64 )

## 6. General scoreboard

Taking into account the analyzed scoreboards on the processes within an economic entity in the construction field, the herein structure for the general scoreboard comprises the following four perspectives,: the financial perspective of the economic entity, the perspective of the entity's clients, the staff perspective and the internal perspective, which also concern the quality of the activities and the products carried out within the economic entity. The general scoreboard is presented in Table no.4:

Table no. 4: The general scoreboard within an economic entity in the construction field<sup>1</sup>

Axes	Objectives	Indicators	Weight of indicators %	Score	Predicted score
0	1	2	3	4	5
Financial perspective	Profit increase by 10 %	Total turnover profit rate	40	15,00	20,00
		Procurment costs (mil. lei)	10	2,05	1,80
		Increase of sales value (%)	20	28,00	30,00
		Production costs (mil. lei)	20	0,88	0,80
		Wages	10	1,00	1,00
Customers' perspective	Market share increase by 5%	New product launch (in the last 5 years)	19	5,00	5,00
		Increasing the market for customers by improving the database of all potential customers (%)	20	60,00	80,00
		Optimization of delivery time (%)	11	99,00	100,00
		The usage level of production equipment (%)	30	13,00	10,00
		The implementation grade of quality standards (%)	20	80,00	100,00
	Increasing customer satisfaction	Policy of customers' liability (% implementation level)	18	73,00	80,00
		Increasing the market on customers by improving the lead database (%)	40	60,00	80,00

<sup>1</sup> Mendoza, C., Zrihen, R., Le tableau de bord: en V.O. ou en version américaine? Comparaison entre le tableau de bord et le balanced scorecard, Revue française de comptabilité nr.309/1999, p. 64

Axes	Objectives	Indicators	Weight of indicators %	Score	Predicted score
0	1	2	3	4	5
Staff perspective	The personnel qualification growth	Level of response to customer requirements (%)	30	80,00	100,00
		The order- delivery cycle (per day)	12	29,00	30,00
		The qualification level of employees (%)	30	79,00	90,00
		Working conditions improvement (%)	27	15,00	15,00
		Training programs from the last 5 years (no.)	25	5,00	5,00
Internal perspective	The products quality improvement	The importance of the management team (%)	18	67,00	70,00
		The innovation and automation degree of production (%)	38	70,00	80,00
		Implementation of quality standards (%)	29	70,00	100,00
		Investing in new equipment and technologies (mil. lei)	33	200,00	210,00

(Source: adaption from Mendoza, C., Zrihen, R., Le tableau de bord: en V.O. ou en version américaine? Comparaison entre le tableau de bord et le balanced scorecard, Revue française de comptabilité nr.309/1999, p.64 și Popa, V., Topolică, M., Utilizarea tabloului de bord ca instrument de pilotare a unei organizații parte a lanțului de distribuție/aprovizionare, Conferința Coromar, Iași, 28-29 sept. 2007, p.360-381 disponibil la adresa [https://virgilpopa.com/old/articole/coromar/2\\_utilizarea\\_tabloului\\_de\\_bord.pdf](https://virgilpopa.com/old/articole/coromar/2_utilizarea_tabloului_de_bord.pdf))

## 7. The scoreboard of performance indicators

The balance sheet is the component of financial statements that mirrors the finality from an economic and financial perspective. In most cases it does not fully cover management's demands, which causes the analysis and interpretation of performance indicators to be carried out through the scoreboard tool.

A scoreboard of performance indicators represents the method for indicators' selection, order and presentation, thus facilitating the rapid identification of a structure summary at entity level, and becoming a tool designed to gather in a focused way and synthesize the information indispensable for managers. This allows the accurate identification of situation, by facilitating a permanent and strong information of the decision-makers about the dynamics of the events related to the action led and on the way in which the phenomena specific to the conducted activities evolve. The scoreboard of performance indicators is a system of indicators, in absolute and relative quantities, used for the process of evaluating, controlling and regulating operatively the entire activity of the economic entity. Just like a synoptic picture, this scoreboard sorts, structures, equalizes and makes available the most important informational components necessary for the management to cover in an operational manner, the activity of phenomena and indicators, in accordance with the path outlined by the activity programming. Whether it is the case of the narrow scoreboard, which contains a small amount of information, or of the complex scoreboard, which targets a wide range of information on all investigated activities, there is recommended a set of requirements at the same time. Compliance with these requirements is a guarantee of the effective use of performance indicators' scorecard by the management of construction entities.

A balanced scoreboard provides a coherent pattern of performance. However, it facilitates the implementation of the strategy and allows the reflection on the relevance of the choice, but sometimes generates ambiguity.

At the same time, it offers the responsible decision-makers the possibility to communicate with those oriented to obtain information on the development of economic and financial phenomena, as well as to draw the attention of the responsible persons to the key points of the economic and financial analysis aiming at improving the results.

The use of the scoreboard offers the possibility to focus actions on certain aspects, setting for them objectives entrusted to accountability centres. Regardless of the accounting model and the strategy for economic and financial analysis, the scoreboard of performance indicators is one of the methods that should not be missing from any entity as it will lead to a better functioning from an economic and financial point of view following the adoption of rapid and scientifically based decisions.

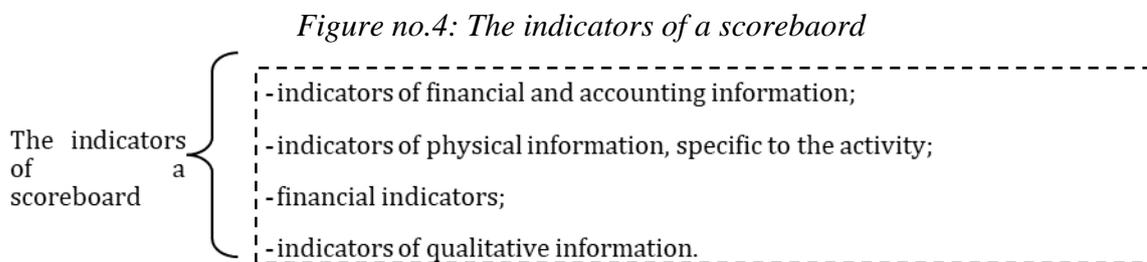
In the context of the multiple advantages offered by the use of this instrument at the entities' level in the construction field, there can be mentioned aspects regarding the

amplification of the substantiation degree of the decisions adopted by making available to the decision-maker some operative, relevant information, regarding the main economic and financial aspects of the entity; reasonable use of the working time by directing the activity towards the key problems faced by the entity on which the scoreboard, through the situations drawn up, draws the "alarm signal"; increasing the responsibility of the managers for the carried out activity, the scoreboard offering them in a synthesized way the critical aspects and areas on which they are going to orient their efforts; creation of superior, favorable conditions for a high functionality of the entity assembly; ensuring a high quality of reporting to the various bodies. The scoreboard allows the determination of whether the entity's performance is aligned with the overall business strategy and highlights the direct link between business strategy, goals and performance, which facilitates basic predictions followed by quick reactions for those responsible. The definition and implementation of scoreboards allows for a balanced and integrated view of the entity's performance and the establishment of a performance measurement system that highlights the sources of potential problems. However, the limits of this instrument must not be omitted.

The distinction between *lagging indicators* and *leading indicators* is often relative, as it does not fall on the traits for each category (result indicators and action or operation indicators). Most of the proposed indicators are those of results. The *lagging indicators* will be rather those that look at financial performance, and *leading indicators* are relative to internal processes and organizational experience. The causal relations between the two categories are far from rigorous.<sup>1</sup>

The traditional scoreboards are focused on financial performance, taking into consideration the act of defining performance and monitoring indicators EVA (Economic Value Added-Added Value), ROS (Return of Sale-Profitability), ROE (Return of Equity-Financial Profitability), MVA (Market Value Added-Market Value-Added Market).<sup>2</sup>

The indicators of a scoreboard may be ordered and presented according to a structure shown in Figure No. 4.



(Source: adaption from: Tabară N., Briciu S., *Actualități și perspective în contabilitate și control de gestiune*, Editura Tipo Moldova, Iași, 2012, p. 251)

The performance of economic and financial information is determined by the completion of some steps rendered through a dashboard, a process presented in Table no.5

<sup>1</sup>Tabară N., Briciu S., *Actualități și perspective în contabilitate și control de gestiune*, Editura Tipo Moldova, Iași, 2012, p. 238

<sup>2</sup>Kebl P., Selmer C., *L' executive Scorecard*, în Balantzian G., *Tableaux de bord. Pour diriger dans un contexte incertain*, Edition d' Organisation, Paris, 2005, p. 113

*Table no. 5: Scoreboard of performance indicators for 2018-2020 in an economic entity in the construction field*

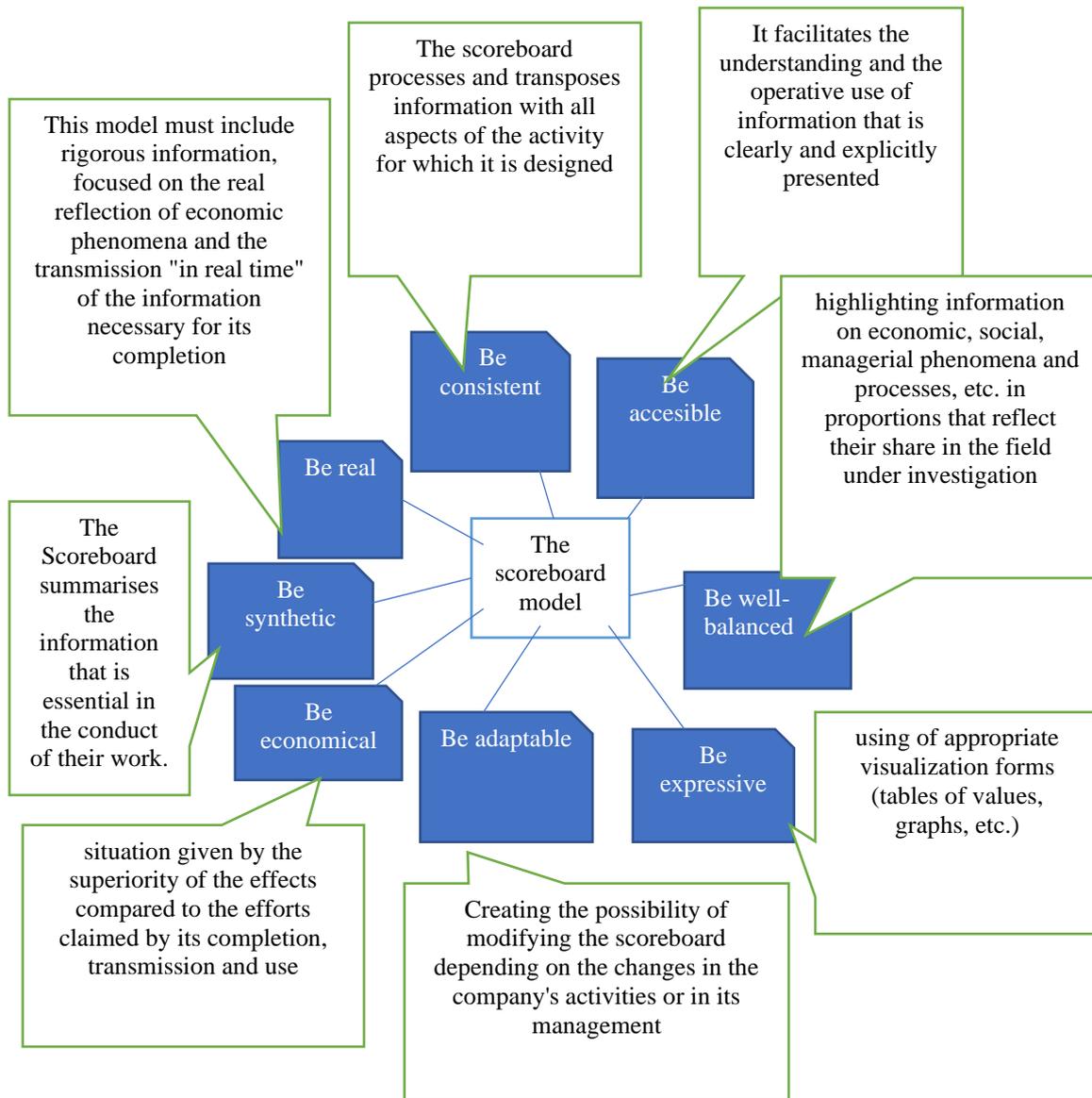
Indicator no.	Indicator name	U.M.	Recommended values	2018	2019	2020
0	1	2	3	4	5	6
1.1	Net profit	lei	Growth ratio (> 1)	428,140	511,039	689,924
1.2	Net profit margin	%	Growth ratio (between 1 and 15)	8,12	9,85	12,55
1.3.	Rate of return on assets	lei/1000	Growth ratio (> 1)	139,28	152,30	210,55
1.4	Rate of return on equity	lei/1000	Growth ratio (> 1)	286,94	337,88	412,85
1.5	Financial profitability	%	Growth ratio (> 1)	24,69	32,28	41,28
1.6	Rate of economic return	%	Growth ratio (> 1)	22,75	22,84	35,60
1.7	Equity profitability	%	Growth ratio (> 1)	48,59	70,69	105,48
2.1	Stock rotation	No. of days	Decrease ratio (< 1)	50,17	24,17	33,64
2.2	The period of claims recovery	No. of days	Decrease ratio (< 1)	29,55	43,17	30,33
2.3	The period of debt payment	No. of days	Decrease ratio (< 1)	27,94	41,26	31,29
2.4	Rate of return on fixed assets	Lei/1000	Decrease ratio (> 1)	4285,94	3284,35	3737,34
2.5	Rate of current assets' efficiency	Lei/1000	Growth ratio (> 1)	95,04	137,56	99,10
3.1	Patrimonial solvency	%	> 30	57,43	49,11	58,90
3.2	Immediate liquidity	point	Almost 1	0,93	0,92	0,94

(Source: adaption from an article by Rusu,C., Bălan, S., Congresul profesiei contabile din România "Profesia contabilă între reglementare și interesul public", Indicatori de performanță ai întreprinderilor mici și mijlocii, Editura CECCAR, București 2008, p. 473)

Both in the restricted form of the scoreboard, in which the specific information is diminished and in the complex form, there are included many elements and aspects related to the structure, strategy, production, this tool is necessary to cover a diverse range of characteristics<sup>1</sup> according to Figure no.5.

<sup>1</sup>Cucui, I., Man, M., *Costurile și controlul de gestiune*, Editura Economică, București, 2004, p. 269

Figure no. 5: The specific scoreboard model's features



(Source: adaption from Cucui, I., Man, M., Costurile și controlul de gestiune, Editura Economică, București, 2004, p. 269)

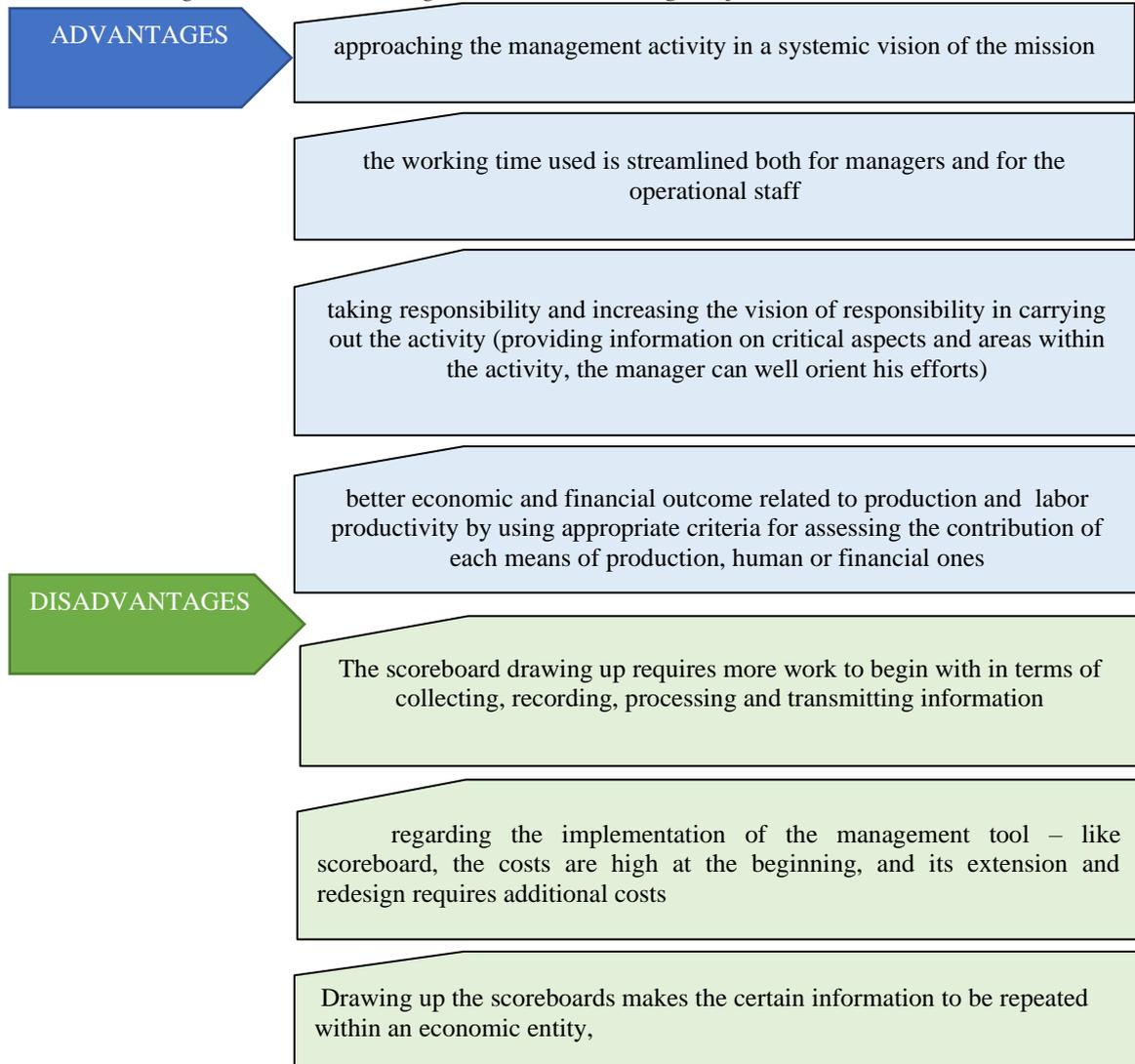
The assigned task must actually be the objective of the establishment and operation of any economic entity. The orientation towards the mission achievement at the level of the entity operating in the construction field, must start from the conception that the performance is not achieved regardless the level of costs, but progressively, over a long period of time, correlating with the level of human and material resources it determines solid, sustainable and valuable results for the next period.<sup>1</sup>

The scoreboard, characterized as a means of action by management, helps to highlight the mission at the level of a building entity through the person responsible for this aspect.<sup>2</sup> In figure no. 6 there are presented the advantages and disadvantages of the Scoreboard instrument analysis.

<sup>1</sup>Bărbulescu, C., *Pilotajul performant al întreprinderii. Proiectare și funcționare*, Editura Economica, București, 2000, p. 102

<sup>2</sup> Cucui, I., Man, M., *Costurile și controlul de gestiune*, Editura Economică, București, 2004, p. 283

Figure no.6. Advantages and disadvantages of the Scoreboard tool



(Source: adaption from Verboncu, I., *Tabloul de bord: teorie, metodologie, aplicatie*, Editura Tehnica, București 2001, p. 99)

## 8. Conclusions

Considering its structure, **the Scoreboard** contains minimal information and represents a symmetrical presentation tool generally consisting of figures or graphs without detailed explanations. It is imperative for the information presented in the Scoreboard to relate only to the area on which the responsible person can act, so that it can be easily understood, analysed and used as quickly as possible. This information is systematically brought to the attention of the scoreboard user and relies mainly on the streamlining of the activities in the entity.

The use of scoreboards has a significant role in taking into account the entity's strategic objectives guiding the management of processes or centers of responsibility.

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