



Assessing the Performances of a Cultural Institution through Non-Financial Key Performance Indicators

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Abstract: The article aims at applying the Balanced Scorecard performance measurement tool to evaluate the activity of the Museum of History, Culture and Christian Spirituality from the Lower Danube, Galati, through indicators of a non-financial nature, grouped in three perspectives: educational, stakeholder satisfaction and organizational development. The Balanced Scorecard Designer software validates the fact that the Museum of Christian History, Culture and Spirituality from the Lower Danube, Galati, is a museum that recorded high performance during the evaluated period, namely the first six months of the current year. The usefulness of this managerial tool has been proven in practical application, and the results obtained will stimulate the efficiency of resources, in order to redirect them for the improvement of organizational management on those sectors that recorded lower values.

Keywords: Balanced Scorecard; museum management; non-financial indicator; stakeholders

JEL Classification: L25; L32

1 Introduction

The novelty of applying the Balanced Scorecard (BSC) methodology in the museum field consists in the introduction of a new set of indicators in the performance evaluation of a museum organization, which go beyond the traditional concept, strictly based on economic-financial indicators, taking into account especially internal and external resources, fundamental in the development of an organization, succeeding, according to Farokhi et al. (2018) to transform the mission and strategy of an institution into a complete set of actions to evaluate performance.

Also, the BSC tool recognizes the existence and importance of different categories of stakeholders for organizational performance, an extremely useful fact for our

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research, whose main goal is to improve organizational performance precisely through strategic partnerships with stakeholders.

The objective of this research article is to answer the central question of this scientific approach: what is managerial performance in the museum sector? how do we evaluate it and how do we improve it? Theoretical forays were made, evaluation methods and tools were highlighted, and the applicability of the most interesting and adaptable tool - the Balanced Scorecard - was tested through practical research at the Museum of Christian History, Culture and Spirituality from the Lower Danube, Galati. The implementation of the BSC evaluation tool was meant to help us validate, through practical testing, the considerations from the specialized literature and to discover how performing the museum really is, having as a starting point three of the four organizational perspectives, which based on non-financial key performance indicators.

2. Theoretical Background

In essence, the BSC method transforms the mission and strategy of the museum organization into a set of performance indicators, which is the foundation for an optimal framework for developing a system for measuring the achievement of the strategy and evaluating management (Brignall et al., 1991), in a unique and innovative way. Thus, performance, in its multidimensionality, is connected to the strategies and daily activities of a museum, favoring a balance between short and long-term objectives, between the desired results and the performance factors of those results (TaHERi and Ansari, 2013). The results of the application of the measurement tool demonstrate the interdependence between current operations, performance measurement and museum strategy.

The BSC looks at four perspectives of organizational performance to determine the long-term success of the organization: financial; of the client; of internal processes; of learning and innovation. The original formula provides for each perspective specific institutional objectives, performance indicators, target levels of indicators and actions, which must be undertaken to achieve the assumed objectives (Basso et al. 2018), and the 4 perspectives are linked to each other through cause-effect relationships, with the aim of pursuing continuous progress in the 3 non-financial perspectives, which will ultimately translate into financial results. According to the promoters of the BSC (Kaplan and Norton, 1996), the BSC identifies for the applying institutions those knowledge, skills and procedures, which the internal staff/employees will need (learning/growth and innovation) to build suitable strategies for efficiency (internal processes), which will generate specific value for customers and will ultimately translate into financial performance. The current study only considers three perspectives that do not follow financial metrics.

The usefulness of the BSC for the museum sector is indicated even by the theoreticians of the concept (Kaplan and Norton, 1992), who emphasize the need to change the objectives pursued in the application of the evaluation tool, since the primary purpose of these institutions is not to obtain profit or to fit into a budget, but to respond, in a transparent and efficient manner, to the needs of the community of which they are a part, by evaluating the achievement/implementation of the assumed strategic objectives, for the fulfillment of the mission.

The evolution of adapting the BSC implementation to the specifics of the museum sector thus produced two essential changes, stated by Boorsma and Chiaravalloti (2010): 1. since financial success is not the main objective of these institutions, the financial perspective must be placed last in the cause-effect chain of the instrument of assessment; 2. mission and stakeholder relations must be at the top of the hierarchical chain.

The performance measurement tool has also been successfully adopted in the evaluation of cultural institutions, because, according to Rozzi (2021), it is one of the few methods that allow the consideration of multiple and diverse aspects, specific to organizations in this sector, from financial ones, to those related to learning, organizational growth, internal processes, beneficiaries/customers and stakeholders in general. Chiaravalloti (2016) shows that the implementation of BSC in the cultural field with the help of financial and non-financial indicators, helps to evaluate performance, especially if those critical success factors, specific to each organization, are taken into account.

One of the difficulties of applying BSC to the specific context of museums is the problem of quantifying and multidimensional analysis of the results regarding the purpose of different projects (Basso et al., 2018), focused on different stakeholders: visitors, community, various groups, public administration, donors, sponsors etc.

From what has been exposed so far, we can conclude that the BSC tool can be a solution in evaluating performance in cultural and artistic organizations, because it includes numerous indicators that are not of a financial nature, but which can be vital for institutions: operational efficiency, the level of support of the community, the value created for stakeholders, the diversity of the offer and its degree of receptivity.

3. Evaluation of Museum Performance through Non-Financial Indicators

This study seeks to assess the activity of the Museum of History, Culture and Christian Spirituality from the Lower Danube, Galati, in the first semester of 2022 with relevant key performance indicators having non-financial connotation, grouped in three clusters: educational, stakeholders and organizational development. It is a

follow-up of a previous study that reported the performance levels of these indicators in 2019 (Ilie et al., 2022).

Performance indicator data processing was done using the online version of the Balanced Scorecard Designer software, available at: <https://www.webbsc.com/>.

The software uses four distinct areas of performance levels (Table 1), highlighted in the colors: red, orange, yellow and green, which serve as warning alerts for the management teams of organizations that choose to evaluate performance with this tool : 0 - 20% for the red zone, which indicates a critical level of performance degradation; 20 - 40% for the orange zone - a low performance level; 40 - 60%, for the yellow zone, indicating an average level of performance; and between 60 - 100%, the green area that denotes a high level of performance.

Table 1. Performance scale of BSC system

Perspective	Performance level			
	0-20% → critical level of low performance	20-40% → low performance level	40-60% → average performance level	60-100% → high performance level
1. Educational				
2. Stakeholder				
3. Organizational development				

Source: Balanced Scorecard Designer software

Table 2 reflects the key performance indicators related to educational perspective of the Balanced Scorecard system.

Table 2. Key performance indicators related to educational perspective

Key performance indicator	Minimum level forecasted	Maximum level forecasted	Level achieved in the first semester of 2022
The ratio between the number of beneficiaries of the cultural-educational services organized at the museum headquarters and the museum staff	700	1.500	1.218
The ratio between the number of cultural-educational activities organized at the museum headquarters and the museum staff	2	3.5	2.71
Share of pupils/students in the average number of participants per activity, in a period from one day to three months	40%	70%	62%
The number of appreciations regarding the formative (educational) role of museum services, from the total number of impressions entered in the museum's Book of Honor	0	100	84

Source: Museum's internal data

The performance level associated to the first indicator, the ratio between the number of beneficiaries of the cultural-educational services organized at the museum premises and the staff employed, reported by the Balanced Scorecard Designer software, is 64.75% and falls within the green alert zone of the measurement tool (Figure 1 and Figure 5).

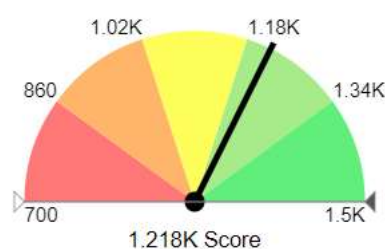


Figure 1. The level of performance associated to the ratio between the number of beneficiaries of the cultural services organized at the museum and the staff

Source: Balanced Scorecard Designer software output

For the second indicator, the ratio between the number of cultural-educational activities organized at the museum premises and the staff employed, the reported

performance level is an average one (47.33%), being included in the yellow zone of the Balanced Scorecard Designer software (Figure 2 and Figure 5).

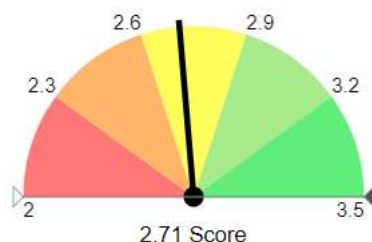


Figure 2. The level of performance associated to the ratio between the number of cultural-educational activities organized at the museum

Source: Balanced Scorecard Designer software output

An interesting insight reflects a high-performance level (73.33%) for the share of pupils/students in the average number of participants per activity, in a period from one day to three months, which means a propensity of museum activities towards this target group of visitors and implicitly, an educational positioning (Figure 3 and Figure 5).



Figure 3. The level of performance associated to the share of pupils/students in the average number of participants per activity

Source: Balanced Scorecard Designer software output

The highest performance level (84%) has been assigned to the indicator: the number of appreciations regarding the formative (educational) role of museum services, from the total number of impressions entered in the museum's Book of Honor (Figure 4 and Figure 5).

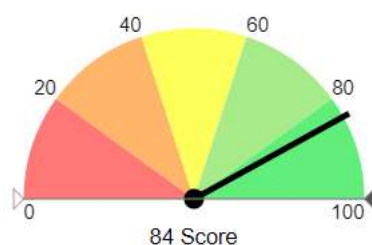


Figure 4. The level of performance associated to the number of appreciations regarding the formative (educational) role of museum services

Source: *Balanced Scorecard Designer software output*

The overall performance of educational perspective (67.35%) is the result of the average of individual performance level associated to each indicator (Figure 4). We can hierarchize the key performance indicators, based on their individual performance level.

Name	Weight	Value	Measure	Target	Progress
Strategy Scorecard		67.354	%	100	67.35%
Educational perspective	33.33%	67.354	%	100	67.35%
The ratio between the number of beneficiaries of the cultural-educational services organized at the museum headquarters and the museum staff	25%	1.218K	Score	1.5K	64.75%
The ratio between the number of cultural-educational activities organized at the museum headquarters and the museum staff	25%	2.71	Score	3.5	47.33%
Share of pupils/students in the average number of participants per activity, in a period from one day to three months	25%	62	Score	70	73.33%
The number of appreciations regarding the formative (educational) role of museum services, from the total number of impressions entered in the museum's Book of Honor	25%	84	Score	100	84%

Figure 5. Performance levels of key performance indicators related to educational perspective

Source: *Balanced Scorecard Designer software output*

Table 3 outlines the key performance indicators related to stakeholder perspective of the Balanced Scorecard system.

Table 3. Key performance indicators related to stakeholder perspective

Key performance indicator	Minimum level forecasted	Maximum level forecasted	Level achieved in the first semester of 2022
Average number of participants per event/exhibition/activity	100	500	325
Activities carried out with local partners (community stakeholders)	3	30	18
Activities carried out with regional/national stakeholders	1	10	8
The ratio between the activities carried out in partnership with the institution's external stakeholders and the total number of activities	30%	80%	65%

Source: Museum's internal data

The first indicator from this cluster (Average number of participants per event/exhibition/activity) reveals an average performance level, being situated in the yellow alert area (56.25%) – Figure 6 and Figure 10.

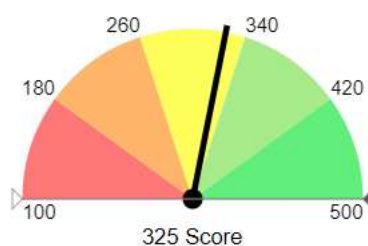


Figure 6. The level of performance associated to the average number of participants per event/exhibition/activity

Source: Balanced Scorecard Designer software output

The number of activities carried out with local partners (community stakeholders) is moderate if we consider the expectations set by museum's managerial team, leading to a performance level of 55.56% - Figure 7 and Figure 10.

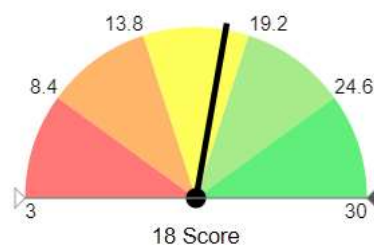


Figure 7. The level of performance associated to the activities carried out with local partners (community stakeholders)

Source: Balanced Scorecard Designer software output

Activities carried out with regional/national stakeholders proved to be more effective than those carried out with local partners, as the performance level is superior – 77.78%, being situated in the green area – Figure 8 and Figure 10.

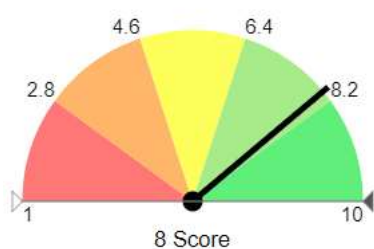


Figure 8. The level of performance associated to the activities carried out with regional/national stakeholders

Source: Balanced Scorecard Designer software output

The fourth indicator included in the stakeholder perspective (the ratio between the activities carried out in partnership with the institution's external stakeholders and the total number of activities) led to a high level of performance (70%), considering the expectations of the managerial team – Figure 9 and Figure 10.

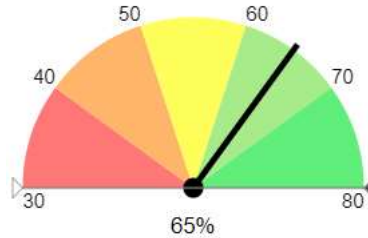


Figure 9. The level of performance associated to the ratio between the activities carried out in partnership with the institution's external stakeholders and the total number of activities

Source: Balanced Scorecard Designer software output

The overall performance of educational perspective (64.9%) is the result of the average of individual performance level associated to each indicator (Figure 10).

Name	Weight	Value	Measure	Target	Progress
- Strategy Scorecard		66.125	%	100	66.13%
+ Educational perspective	33.33%	67.354	%	100	67.35%
- Stakeholder perspective	33.33%	64.896	%	100	64.9%
Average number of participants per event/exhibition/activity	25%	325	Score	500	66.25%
Activities carried out with local partners (community stakeholders)	25%	18	Score	30	60.00%
Activities carried out with regional/national stakeholders	25%	8	Score	10	80.00%
The ratio between the activities carried out in partnership with the institution's external stakeholders and the total number of activities	25%	65	%	80	81.25%

Figure 10. Performance levels of key performance indicators related to stakeholder perspective

Source: Balanced Scorecard Designer software output

Table 4 emphasizes the key performance indicators related to the third perspective of the Balanced Scorecard system: organizational development.

Table 4. Key performance indicators related to organizational development perspective

Key performance indicator	Minimum level forecasted	Maximum level forecasted	Level achieved in the first semester of 2022
The number of beneficiaries of museum services	30.000	60.000	51.852
The number of analytical documents (recording, conservation, restoration) drawn up by specialized staff for objects from the museum's heritage	200	400	286
The ratio between the number of documents drawn up and the specialized staff	60	100	82
Number of heritage objects restored	20	40	32

Source: Museum's internal data

The number of beneficiaries of museum services has been perceived as adequate, in line with museum management team's expectations and promotional efforts, leading to a performance level of 72.84% - Figure 11 and Figure 15.

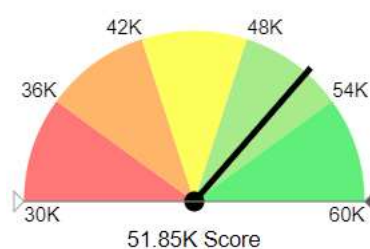


Figure 11. The level of performance associated to the number of beneficiaries of museum services

Source: Balanced Scorecard Designer software output

Second indicator from the organizational development cluster reflects the number of analytical documents (recording, conservation, restoration) drawn up by specialized staff for objects from the museum's heritage, with an average performance level (43%) – Figure 12 and Figure 15.

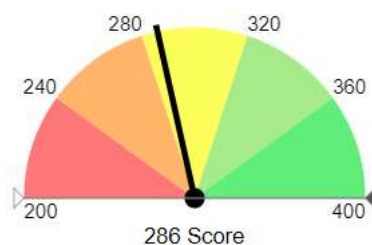


Figure 12. The level of performance associated to the number of analytical documents (recording, conservation, restoration) drawn up by specialized staff for objects from the museum's heritage

Source: Balanced Scorecard Designer software output

The ratio between the number of documents drawn up and the specialized staff has been also assessed with an average performance level (55%), as the need to hire new specialized staff is clearly a priority for the management staff – Figure 13 and Figure 15.



Figure 13. The level of performance associated to ratio between the number of documents drawn up and the specialized staff

Source: Balanced Scorecard Designer software output

The fourth indicator (number of heritage objects restored) hasn't been assessed at a satisfactory level, the performance value being in the yellow area (60%) – Figure 14 and Figure 15.



Figure 14. The level of performance associated to the number of heritage objects restored

Source: Balanced Scorecard Designer software output

The overall performance of organizational development perspective (57.71%) is the result of the average of individual performance level associated to each indicator (Figure 15).

Name	Weight	Value	Measure	Target	Progress
- Strategy Scorecard		63.32	%	100	63.32%
+ Educational perspective	33.33%	67.354	%	100	67.35%
+ Stakeholder perspective	33.33%	64.896	%	100	64.9%
- Organizational development	33.33%	57.71	%	100	57.71%
The number of beneficiaries of museum services	25%	51.85K	Score	60K	72.84%
The number of analytical documents (recording, conservation, restoration) drawn up by specialized staff for objects from the museum's heritage	25%	266	Score	400	43%
The ratio between the number of documents drawn up and the specialized staff	25%	82	Score	100	55%
Number of heritage objects restored	25%	32	Score	40	60%

Figure 15. Performance levels of key performance indicators related to organizational development perspective

Source: Balanced Scorecard Designer software output

The overall performance level of the museum is 63.32%, being situated in the green area. However, measures should be taken especially at the level of organizational development perspective, where the performance level was on yellow alert area.

4. Conclusions

For a correct interpretation of the results, we must take into account the fact that the staff employed by the museum, to which the indicators refer, are not specifically dedicated to the activities or interaction with the beneficiaries, but all contractual staff. Since the number of employees is limited (18), of which 9 are specialized (museographers, conservators, restorers) and 9 for administrative, maintenance and security, each activity carried out involves all those present at the workplace that day. Taking into account the fact that the museum does not have interactive technology, the results are gratifying and are due, exclusively, to the way in which the museum managers knew how to attract and involve young people in increasingly diverse activities, as well as co-opting them into the team of active partners of the museum of a non-governmental organization, suggestively titled "Youth and the Future", whose main goal is active participation in educating young people and training tomorrow's leaders among them. The average number of participants per event/exhibition/activity is unexpectedly high and is due to the success of the traveling exhibition "Christian Spirituality in the Lower Danube", the result of collaboration with 5 renowned national and regional institutions, presented at the beginning of the practical part of the chapter, but also of the existence of the 2 new exhibition spaces, through the partnership with 2 important institutions of the Galați

community: “Dunarea de Jos” University and the “Nae Leonard” National Opera and Operetta Theater for the Theater Foyer, which have recorded an impressive flow of visitors. Due to the limited funds, for the museum services offered to the beneficiaries, private partners (collectors, private museum institutions, artists, etc.) were co-opted, which can conclude agreements under more flexible conditions, compared to the mandatory provisions to which the national museums are subject. It should be noted, however, that keeping the principles of preservation of objects and ensuring their security takes precedence in any situation. The museum’s management team must have the ability to choose and identify the ideal compromise that meets both the current needs of funders, beneficiaries, partners, the community, the health and development of the organization, and the institutional mission.

References

- Basso, A., Casarin, F. & Funari, S. (2018). How well is the museum performing? A joint use of DEA and BSC to measure the performance of museums. *Omega*, 81, 67-84.
- Boorsma, M. & Chiaravalloti, F. (2010). Arts marketing performance: An artistic-mission-led approach to evaluation. *The journal of arts management, law and society*, 40(4), 297-317.
- Brignall, T. J.; Fitzgerald, L.; Johnston, R. & Silvestro, R. (1991). Performance measurement in service businesses. *Management Accounting*, 69(10), 34-36.
- Chiaravalloti, F. (2016). *Performance evaluation in the arts: From the margins of accounting to the core of accountability*. University of Groningen, SOM research school.
- Farokhi, S., Roghanian, E., & Samimi, Y. (2018). Investigating causal linkages and strategic mapping in the balanced scorecard: A case study approach in the banking industry sector. *Journal of Industrial Engineering and Management Studies*, 5(1), 1-25.
- Ilie, C.; Căpățînă, A.; Schin, G. (2022). Balanced Scorecard Applied to Museums: The Solution for Assessing Organizational Performances in this Sector. *Annals of “Dunarea de Jos” University of Galati, Fascicle I. Economics and Applied Informatics Years XXVIII – no2/2022*.
- Kaplan, R.S. & Norton, D.P. (1992). The Balanced Scorecard—measures that drive performance. *Harvard Business Review*, 70(1):71–79
- Kaplan, R.S., Norton, D.P. (1996). *The balanced scorecard: translating strategy into action*. Boston: Harvard Business School Press.
- Rozzi, G. (2021). Female leadership in museums during Covid-19: a Balanced Scorecard. *The Corona Rollercoaster*, 179.
- Taheri, H. & Ansari, S. (2013). Measuring the relative efficiency of cultural-historical museums in Tehran: DEA approach. *Journal of cultural heritage*, 14(5), 431-438.