

## THE ROLE OF NON-FINANCIAL FACTORS IN ENSURING AN ADEQUATE FIRM PERFORMANCE MEASUREMENT SYSTEM

**Camelia Cătălina MIHALCIUC**

*Stefan cel Mare University of Suceava, 720229, Romania*  
*camellia.mihalciucA@usm.ro*

**Maria GROSU**

*„Alexandru Ioan Cuza“ University of Iasi, 700506, Romania*  
*maria.grosu@uaic.ro*

**Ana-Maria BUZDUGAN**

*Stefan cel Mare University of Suceava, 720229, Romania*  
*[annabuzdu@yahoo.com](mailto:annabuzdu@yahoo.com)*

**Dumitrița APOSTOL**

*Stefan cel Mare University of Suceava, 720229, Romania*  
*dumitrita.apostol99@gmail.com*

### Abstract

*Performance is one of the main indicators that indicate the level of development of an organization, representing one of the most important variables of analysis and at the same time will remain a topic quite discussed and constantly evolving. The elements of social responsibility found in the sustainable business practices of organizations lead to an evolution of performance towards a global approach that includes both financial and non-financial factors with an impact on the value of organizations. Non-financial indicators are considered to be more forward-looking, better able to predict future performance, better suited to measuring intangible assets and less likely to be manipulated than financial values. The performance measurement system, including non-financial indicators, provides a more comprehensive picture of performance factors as it measures performance beyond financial results. All these aspects led us to establish the respective research objective, to analyze the importance of non-financial performance factors in ensuring an efficient system for measuring organizational performance. The results of the research highlight the fact that most organizations in Suceava appreciate the importance of non-financial factors that lead to performance and create value for the organization.*

**Key words:** *performance; management system; management and performance measurement system; non-financial performance; non-financial factors.*

**JEL Classification:** *L25, M40*

### I. INTRODUCTION

The concept of performance has evolved towards a global approach that includes both financial and non-financial aspects that refer mainly to the elements of social responsibility. Influenced by the high level of globalization, strong competition and technological change, many organizations have begun to use a range of financial and non-financial measures for their performance (Mihalciuc, 2022). Financial performance measures are insufficient to provide a complete picture of an organization's performance, so there is a need for a complex approach that includes a non-financial analysis.

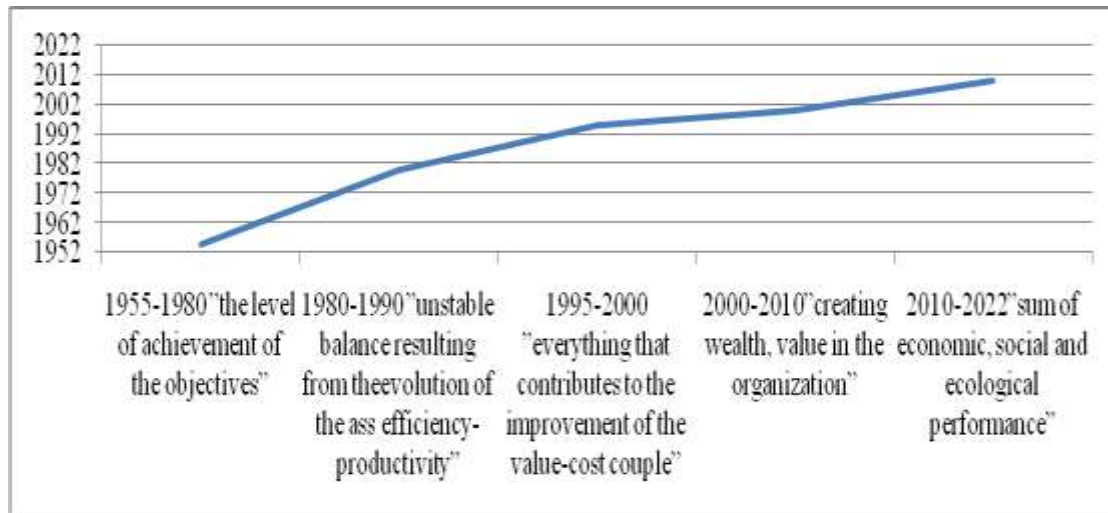
Non-financial performance is defined in specialized work as the result of an organization's efforts in terms of customer satisfaction and loyalty, working conditions and employee satisfaction, product/service quality, overall organization quality, market share, productivity, innovation, and environmental and social issues, and it is essential to improve accountability and transparency towards stakeholders.

The goal of this work is to examine how the existence and approach of non-financial factors influence the performance measurement and management system (SMMP). Thus, as a methodological approach, we will analyze the literature on non-financial factors and the existence of an SMMP system on which these factors influence the organizational performance, using empirical data from various companies in Suceava County. In this regard, we will conduct a questionnaire structured in three different sections, namely, the presentation of information on the respondent and the organization in which it operates the assessment of the quality of the existing management system in organizations and the degree of implementation and analysis of non-financial factors in organizations.

**II.LITERATURE REVIEW**

Organizational performance must be correlated with users' own goals (Gănescu, 2016, p.2). For example, the manager is interested in the overall performance of the company; current and potential investors will look at performance in terms of return on investment; employees and customers are interested in the stability of the organization, and creditors consider solvency and liquidity.

Over the time, the concept of performance has evolved, so that several definitions have resulted, as can suggestively be seen in Figure no. 1



**Figure 1 – The evolution of the concept of performance**  
*Source: Own processing based on information from the literature*

Kaplan & Norton pointed out that while financial measures are important; they are not enough for a good performance appraisal system (Kaplan and Norton, 2001, pp. 71-79). The system should also incorporate non-financial performance measures. They state that non-financial performance factors can enable an organization to address environmental uncertainty by clearly monitoring the core competencies of organizational processes, as well as by creating greater efficiency throughout the organization.

Many organizations now complement summary financial measures with non-financial issues that reflect key value creation activities. In his studies, Brancato found that non-financial performance factors are most useful in improving organizational performance and more likely to favorably influence performance in situations of uncertainty (Brancato 1995, pp.471-481).

According to various studies, the authors Gal and Akisik found that although financial information is relevant to measuring the performance of the organization, shareholders also consider non-financial information in determining the value of organizations, and measuring the value of an organization assesses its performance Gal and Akisik, 2020, pp. 1227-1240).

As performance refers not only to the internal results of an organization but also to those outside it, when determining the value of an organization it is necessary to have a global vision of the links between financial and non-financial factors (Albu and Albu, 2003, pp.96-99).

Tarquino and Posadas investigated the notion of non-financial information and concluded that it was initially defined as additional undisclosed information in the financial statements of organizations (Tarquino and Posadas, 2020, pp. 727-740). But recently, the notion has been associated with information related to social responsibility and sustainability (Barbosa, Monteiro and Pereira, 2021, pp. 221–235). Based on other specialist work, the authors point out that non-financial information covers a wide range of topics and issues such as policies and environmental and social impact, such as: resource and energy use, emissions of greenhouse gases, pollution, biodiversity, climate change, waste treatment, employee health and safety, gender equality, education, are thus essential because it improves accountability and transparency towards stakeholders.

Currently, non-financial factors need special attention from organizations (Barker and Eccles, 2018, pp. 1-4). The use of this type of information can thus contribute to a correct evaluation of organizations and a determination of success. This information can also meet the need of managers for the information they need to make decisions (Laskin, 2020, pp.15-46).

Therefore, the literature suggests that non-financial information is important and should be addressed in a

management and performance measurement system as it determines success in decision making (Mihalciuc, 2022).

**III. THE IMPORTANCE OF THE MANAGEMENT AND PERFORMANCE MEASUREMENT SYSTEM AT THE LEVEL OF ORGANIZATIONS**

A management and performance measurement system plays an important role in managing an organization, because it provides the information needed to make decisions (Smith, 2019, pp.97-104). This system comprises a set of organizational tools that address the indicators needed to quantify the effectiveness and effectiveness of action (Neely, Gregory and Platts, 1995, pp. 80–116).

According to the literature, a good performance management system is based mainly on relationships with its partners, more precisely with employees, customers, suppliers, owners and the public (Albu and Albu, 2003, p.103). Although most organizations use certain management measures, know their goals and want to achieve better and better performance, they fail to satisfy all customers and be at the level of global competition.

One reason is to treat the term performance in a narrow way, taking into account only financial criteria, although this should be seen as a global one (Popa, 2005, p 6).

Overall or sustainable performance consists of financial performance, environmental performance and social performance (Mihalciuc and Apetri, 2017).

In order to achieve economic sustainability, a balance must be struck between the three pillars in relation to the fact that they are viable, bearable and equitable (Mihalciuc et al., 2020, pp. 206-225).

Performance requires an overview of the interdependencies between internal and external parameters, quantitative and qualitative, technical and human, physical and financial management (Mihalciuc and Apetri, 2019, pp. 507-514).

Some of the non-financial factors that require increased attention from organizations are presented in table no. 1.

**Table 1. Non-financial performance factors**

<b>Economic factors</b>	<b>Environmental factors</b>	<b>Social factors</b>
return on assets, equity, product, sales	environment protection	salary policy, employee training, staff relations
operational profitability	energy consumption	health and safety
return on investment	greenhouse gas emissions	combating discrimination
inflation,	air and water pollution	the health and safety of customers
demand /supply,	recycle	correct product promotion and labeling
salaries	water consumption	product quality and safety
	compliance with environmental standards	protection of customers' privacy
	use of renewable materials and resources	donations to charities

Source: Milojevic, M. et. al. „*Impact of Non-Financial Factors on the Effectiveness of Audits in Energy Companies*”, 2020, p.1-17.

Being in a century where we are talking more and more about sustainable development, the performance of an organization can only be seen from a global point of view, which includes the three pillars of this term, sustainable development: economic development, social development and environmental protection, addressing the dimensions mentioned in Table 1.

Performance measures strongly affect the behavior of managers, employees, customers and investors (Attiea et al., 2014, pp.41-139).

The review of the literature on the evolution of the term performance and the gradual inclusion of non-financial factors in some organizations are the pillars of support in conducting a study on the importance given to these factors in organizations in various fields.

**IV. RESEARCH METHODOLOGY**

In order to achieve the objective of the research on the existence of non-financial factors and their approach in the measurement and management systems of organizations in Suceava County, we resorted to the

survey method based on a questionnaire.

The questionnaire was distributed online, using the Google Forms tool, applied to representatives (people in management positions) within organizations in various fields of activity, focusing especially on the areas: accounting services, trade, production, HoReCa, industry and institutions public.

The questions asked in the questionnaire were mostly quantitative and qualitative, using the 5-grade scale and multiple-choice questions.

The questionnaire was structured in three sections: presentation of information about the respondent and the organization in which he works; assessing the qualities of the existing management system in organizations and implementing the analysis of non-financial factors in organizations.

We followed the vision of the representatives within the organizations regarding the management system in the field in which they operate: knowledge and application of the organizational strategy, priorities and initiatives in the organization; the existence and implementation of financial and non-financial performance measures and their influence on the value of organizations.

We also aimed to obtain information on non-financial factors within organizations: analysis and publication of non-financial information, factors that prevent this, the importance of non-financial factors in certain areas of activity.

The questions asked also represent the variables used to process the data in the SPSS program, data collected following the answers received. In the questionnaire we had a number of 172 respondents. The method of analysis considers the quantitative, systematic, comparative research and interpretation of the collected data.

## V. RESULTS AND DISCUSSIONS

With the help of the designed questionnaire we highlighted the knowledge and level of implementation of non-financial factors in measuring performance in organizations that have various fields of activity, but also their impact on the level of performance management, in order to conclude whether to be modified or not.

According to the descriptive results, out of the 172 respondents, people in management positions in organizations based in Suceava County, most are male, 54.1%, aged between 31-40 years, and 35.5% have under 30 years old. In figures 2 and 3, it can be seen that most of the respondents work in organizations that provide accounting services 39.5%, a number of 68 people, which shows their knowledge of the existing financial and non-financial factors at the level organizations. Specifically, 60.50% of respondents know what the non-financial performance factors are. The 104 people chose the option of all the proposed options to the question regarding which are the non-financial factors, namely environmental protection, employee efficiency, customer satisfaction, product quality, some of the respondents consider only a variant of the proposed ones, which is not in all true, and 15.1%, unfortunately, do not know what the non-financial factors are.

In order to know the perception of the people in the management of the organizations regarding the management system applied at the level of their organization, we formulated questions based on a preliminary test, included in the questionnaire and we analyzed it with the help of Excel and SPSS programs.

The centralized responses, for certain areas of activity, are presented in Table 2.

**Table 2. Management system and performance measurement in organizations depending on the field of activity**

Field of activity	Nr. respondents	Dominant score
Commerce	15	-4
Hotels and restaurants	5	-2
Accounting services	10	-6 și 7

*Source: Own processing from the database developed in Excel based on the questionnaire*

Through these answers we studied the assessment of the management system by the representatives of the organizations participating in the survey, focusing on the field of trade, HORECA and the field of accounting services.

The conclusions are related to the total score accumulated by each organization. We noticed that in the field of trade, most of them accumulated a total score of -4, which indicates that the existing performance measurement system in these organizations is excellent. In the financial-accounting field, according to the answers, both positive and negative values were obtained.

We found that in organizations where the value is negative there is a strategic plan, it is known and applied by the entire organization, but in organizations where the value is positive, no analysis of non-financial factors is practiced, or lack of human resources or time.

These organizations should improve their applied management system. In HORECA organizations, most

values are negative, -2, which indicates the existence of a performance management system, but some improvement measures are recommended.

For an even more complex view of the management and performance measurement system in the organizations surveyed, we analyzed a number of variables in SPSS, which are represented in the table 3.

**Table 3. Existence and quality of the management system in organizations**

Variables	Description	No. resp.	Scale (1-5)	Frequency (Procent)	Mean
<b>Knowledge by respondents of nonfinancial factors</b>					
<i>FNFP</i>	Knowledge of nonfinancial factors	104	-	60,50 %	-
<i>FNFP_succes</i>	Nonfinancial performance factors bring the success of a company	75	4	43,60%	33,94
<b>The qualities of the existing management system in the organization</b>					
Quality_investment	The organization invests in quality, but it is not reflected in the results	54	4	31,4%	33,08
Existing_strategy	The organization has a strategy, but is having problems implementing it	61	2	35,5%	22,85
Strategy_understanding	The strategy is understood by employees	61	2	35,5%	22,84
Priority	Priorities in the organization are given by the problems that arise	52	2	30,2%	22,92
Initiative	There are initiatives, but most company do not have a strategy	76	4	44,2%	33,09
Insufficient_information	Employees do not have access to information to meet employee requirements	62	4	36,00%	22,87
Manager_planning_strategy	The lack of reports in a given month would be noticeable	75	4	43,6%	33,15
Reports	Lipsa rapoartelor într-o anumită lună ar fi observabilă	60	4	34,9%	33,09
FNFP_review	Non-financial factors are rarely reviewed and replaced	75	4	43,6%	33,12
Existing_objectives	The organization does not have clear performance objectives	57	4	33,1%	22,94
Intangible elements_trace	Intangible elements create value	66	4	38,4%	33,37
Content_reports	Reports that also contain financial information provide a complex view	57	4	33,1%	33,19
<b>Implement non-financial factor analysis in your organization</b>					
Publication_FNFP	Publishing non-financial performance factors would improve the vision of information users	116	Largely	67,4	
Analysis_FNFP	Performing an analysis of non-financial factors	82	I do not know	47,7%	

Source: own processing in SPSS 26.0

According to the data processed in Table 3, it can be seen that only 43.6% of respondents believe that non-financial factors can lead an organization to success, which indicates that they are not informed about their role and importance. Even more so as 15.1% do not know at all what these factors are.

In order to assess the quality of the management and performance measurement system of the organizations, the respondents were asked to express their opinion on some statements using a scale with options from 1 to 5, where 1 means firm disagreement and 5 firm agreement.

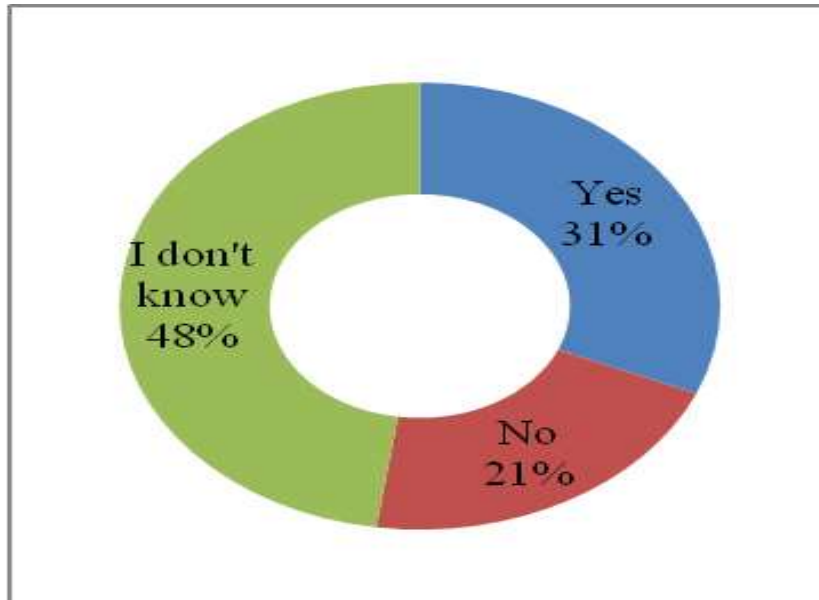
As can be seen in the table above, in most of the statements most respondents rated with score 4 - agreement. The average value of the results, 2.85, shows that organizations, in general, do not have a strategy, which they follow in order to achieve the objectives.

Correlating this variable with the one that represents the objectives, we notice that only in 33.1% of cases, with an average value of 2.94, the clear performance objectives are found in the list of priorities of the organizations, and 30.2% of the cases, the respondents agree that the priorities in the organization are given by the current problems that arise.

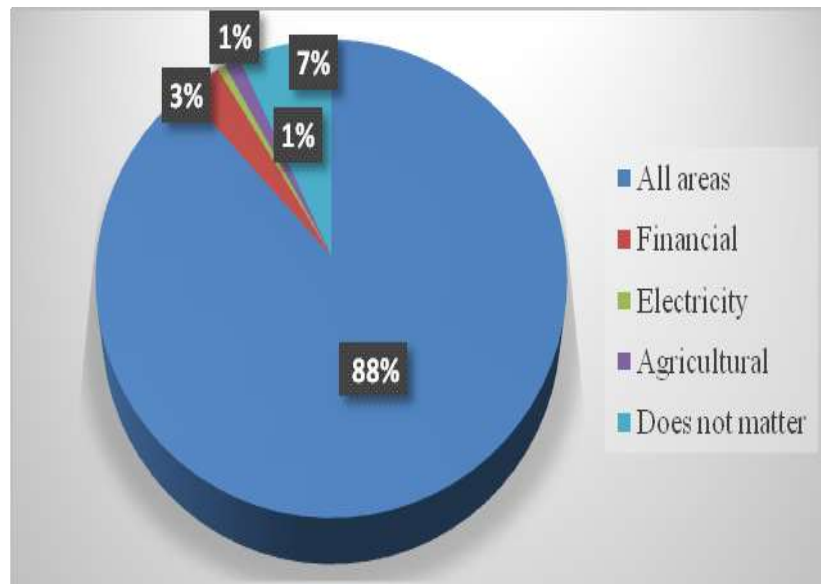
Regarding the existence of an initiative in organizations, with an average of 3.09, exactly 44.2% of the representatives of the organizations say that it exists, but the problem is in the absence of a strategy, as proved above. And in 43.6% of cases, managers do not allow time for discussions about planning and strategy in measuring the performance of an organization.

In order to determine the frequency of the organizations that make a non-financial analysis, we also requested the appreciation of a statement regarding the intangible elements pursued, and we deduced that 38.4%, ie 66 respondents showed that they have an important role in creating value, but their organization does not track them in management and performance measurement systems, and 3.5% of respondents gave a negative answer in this regard.

We determined that the organizations in Suceava county have a low degree of analysis and emphasis on non-financial factors in the management and measurement systems they develop and implement. However, in order to validate the hypothesis regarding the importance of non-financial factors, the results of the questionnaire show that conducting a non-financial analysis at the level of organizations and publishing them in performance reports would give information users a more complex view, response appreciated with the quality "largely" by 116 respondents, representing 67,4%.



**Figure 2 – Implementation of non-financial factors in organizations**  
 Source: own processing based on the answers in the questionnaire



**Figure 3 –Areas of implementation of non-financial factors analysis**  
 Source: own processing based on the answers in the questionnaire

Regarding the implementation of non-financial factors, it is applied to a small extent by organizations, only 31.4%, the equivalent of 54 respondents claim to perform a non-financial analysis in the organizations in which they operate.

Probably, one of the reason is that this reporting is not mandatory. However, it is gratifying that the survey participants see a need to apply the analysis of non-financial performance in almost all areas of activity, but there are a number of factors that prevent them, the most prevalent being the lack of time, which cumulated a percentage of 28.5%. Respondents, to an extent of 88%, believe that a performance measurement system should

be implemented in all areas of activity that also targets non-financial factors.

We hope that in the future this will become a reality, not just a wish. For this reason, an analysis of the existing management system in the organization, and a notice on the importance of including non-financial factors in this system is relevant.

## VI.CONCLUSION

We believe that a study on the identification and analysis of non-financial factors could change the vision of organizations and motivate them to give them more importance, using a global analysis of them as seen in the specialized papers studied on addressed.

Based on the questionnaire, we concluded that non-financial performance indicators should play an important role in the analysis of an organization, as they should be seen as a means of achieving performance and with a major impact on the vision of information users. 67.4% of the people participating in the survey also have this opinion. Only 12 people, representing 7% of the total sample, do not appreciate the inclusion of non-financial factors in the organization's management and performance measurement system. Even if at the level of organizations there is a well-established strategy and objectives, 35.5% of the respondents with management positions within these organizations fail to implement them.

Also, the majority of participants, respectively, 43.6% say that managers spend part of their time discussing strategy and performance issues. Thus, coming up with arguments regarding the importance of a management and performance measurement system and the importance of addressing non-financial factors in the analysis of an organization is an advantage, a starting point in their implementation by most organizations.

On the other hand, the non-existence of an obligation to implement such a performance measurement system means that this type of analysis is not addressed by organizations, there is no strategy to refer to, as evidenced by the analysis resulting from the questionnaire.

From the analyzed sample, 129 people, respectively, 75% of the total respondents answered in the affirmative regarding the achievement of the organization's success with the help of addressing the non-financial factors. Also, 151 respondents, 87.8% of the total, want such an analysis to be performed in connection with the performance of organizations in all areas of activity. These responses showed that the existence of an analysis of non-financial factors influences the management and performance measurement system.

Taking into account the times we live in, with challenges in various global contexts - climate, social, health, political, in the future we propose that organizations harmonize their non-financial indicators, to systematically perform an analysis of them, in correlation with the existing strategy at the level of organizations together with the analysis of the financial factors that lead to the achievement of performance.

All this information must be made available to users in the form of financial and non-financial reports to ensure an integrated presentation with complete and transparent information.

## VII.REFERENCES

1. Abdel-Maksoud, A., Dugdale, D., Luther, R. (2005) *Non-financial performance measurement in manufacturing companies*, The British Accounting Review, Volume 37, Issue 3, pp. 261-297, <https://doi.org/10.1016/j.bar.2005.03.003>; accessed June 02, 2022.
2. Albu, N., Albu, C. (2003) *Instrumente de management al performanței*, Vol. II, Editura Economică, București, pp.96-103.
3. Attiea, A., M., Mohamed, E., I., Amjad., N. (2014) *Effects of Financial and Non-financial Performance Measures on Customers' Perceptions of Service*, International Journal of Economics and Finance, pp.41-139, 10.5539/ijef.v6n10p201, accessed June 01, 2022.
4. Barbosa, F., Monteiro, A., P., Pereira, C. (2021) *Determinants of environmental responsibility disclosure on mandatory and voluntary reporting of listed firms*, Account. Manage. 9, <https://doi.org/10.5753/sbcm.2021.19452>, accessed May 02, 2022.
5. Barker, R., Eccles, R., (2018) *Should FASB and IASB be responsible for setting standards for nonfinancial information*, Green Paper, <http://dx.doi.org/10.2139/ssrn.3272250>, accessed May 02, 2022.
6. Brancato, C.K. (1995) *New performance measures-a research report*, The British Accounting Review, Vol. 37, Issue 3, <https://doi.org/10.1016/j.bar.2005.08.003>; accessed May 02, 2022.
7. Gal, G., Akisik, O. (2020) *The impact of internal control, external assurance, and integrated reports on market value*, Corp. Soc. Responsib. Environ. Manage. 27, <https://doi.org/10.1002/csr.1878>, accessed May 02, 2022.
8. Gănescu, E.,A. (2016) *Analiza factorilor determinanți ai performanțelor financiare ale companiilor*, București, [http://www.fin.ase.ro/ABC/fisiere/ABC4\\_2016/Lucrari/L3.pdf](http://www.fin.ase.ro/ABC/fisiere/ABC4_2016/Lucrari/L3.pdf), accessed May 15, 2022.
9. Kaplan, R., S., Norton, D., P. (2001) *The strategy focused organization: How balanced scorecard companies thrive in the new business environment*, Boston: Harvard Business School Press, 10.5539/ijef.v6n10p201, accessed May 15, 2022.
10. Laskin, A., V. (2020) *Nonfinancial information in investor communications*", International Journal and Business Communication, Vol. 53, issue 4, pp.375-397, <https://doi.org/10.1177/2329488414525458>, accessed May 10, 2022.
11. Mak, A., H., N., și Chang, R., C., Y. (2019) *The driving and restraining forces for environmental strategy adoption in the hotel Industry: A force field analysis approach*", Tourism Management, 73, [https://www.amfiteatruconomic.ro/temp/Articol\\_2844.pdf](https://www.amfiteatruconomic.ro/temp/Articol_2844.pdf), accessed May 15, 2022.
12. Mihalciuc, C., Apetri, A.N. (2019) *Measuring and Reporting Non-Financial Performance of Socially Responsible Companies*. In: V. Dinu, ed., Basiq International Conference: New Trends in Sustainable Business and Consumption. Bucharest: ASE Publishing House, pp. 507-514.

13. Mihalciuc, C.C., Grosu, M., & Apetri, A.N. (2020) *Supporting the Sustainable Development of Companies Through the Use of Social Responsibility Practices In International Affairs*, LUMEN Proceedings, Vol. 13, pp. 206-225.
14. Mihalciuc, C.C., Apetri, A.N. (2017) *The Role of Social and Environmental Information in Assessing the Overall Performance of the Enterprise*. In: Leal Filho, W., Pociovalisteanu, DM., Al-Amin, A. (eds) *Sustainable Economic Development*. World Sustainability Series. Springer, Cham. [https://doi.org/10.1007/978-3-319-45081-0\\_12](https://doi.org/10.1007/978-3-319-45081-0_12)
15. Mihalciuc, C. (2022) *Optimizing the link between management accounting and business management*, Ecoforum, Vol 11, No 1(27).
16. Milojevic, M., Urbanski, M., Terzic, I., Prasolov, V. (2020) *Impact of Non-Financial Factors on the Effectiveness*, <https://doi.org/10.3390/en13236212>, accessed May 15, 2022.
17. Mjongwana, A., Kamala, N. (2018) *Non-financial performance measurement by small and medium sized enterprises operating in the hotel industr*, *African Journal of Hospitality, Tourism and Leisure*, Volume 7 (1), pp. 1-17, [https://www.ajhtl.com/uploads/7/1/6/3/7163688/article\\_29\\_vol\\_7\\_1\\_2018.pdf](https://www.ajhtl.com/uploads/7/1/6/3/7163688/article_29_vol_7_1_2018.pdf), accessed May 15, 2022.
18. Neely, A., Gregory, M. și Platts, K. (1995) *Measuring performance system design*, *International Journal of Operations and Production Management*, Nr. 15.
19. Popa V. (2005) *Managementul și măsurarea performanței organizației*, Ed. University Press.
20. Sadek, H., Youssef, A., Ghoneim, A., Tanawy, P., (2012), *Measuring the effect of customer relationship management (CRM) components on the non financial performance of commercial bank*, Brunel University, <http://bura.brunel.ac.uk/handle/2438/8459>, accessed May 19, 2022.
21. Smith, M., (2019) *Measuring organisational effectiveness*, pp.97-104, <https://doi.org/10.1002/nml.11109>, accessed June 12, 2022.
22. Tarquinio, L., Posadas, S.C. (2020) *Exploring the term “non-financial information: an academics’ view*, *Meditari Account. Res.* 28 (5), <https://doi.org/10.1108/MEDAR-11-2019-0602>, accessed May 17, 2022.