

# BUSINESS VALUATION IN TERMS OF INDICATORS OF SUSTAINABLE DEVELOPMENT

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**Abstract:** *The indexes regarding the sustainable development have an important role in the decision-making process and that is why several bodies and institutions are concerned about their development. This fact happens not only at macro-level, but also at micro-level, the entities being encouraged to take into account the sustainable development principles and to relate its individual performances to the environment in which they operate (local, regional, global). The usage of the indexes regarding the sustainable development offers information regarding the evolution in time helps at identifying the possibilities of improving the activity and the weaknesses; they can be used in order to establish and achieve the objectives, the values being easily communicated both within and outside the company. A main disadvantage is the aggregation level, which hinders comparisons. This paper analyzes the information regarding the sustainable development published by the companies ranked at the Stock Exchange of Bucharest in the 1<sup>st</sup> category and the subsidiaries of 30 national companies.*

**Keywords:** sustainable development; environmental indicator; microeconomic.

**JEL Classification:** Q01; Q56.

## INTRODUCTION

The intensity and complexity of the economic activities under the actual conditions cannot be approached without taking into account the aspects related to the environment. The traditional instruments used in order to plan the economic development are not capable of identifying the effects on the environment. They do not allow the realistic assessment of the economic increase and of the welfare of a country, because they do not take into account the market external factors, such as the natural resources value and either the impact on the environment of the pollution determined by the anthropic activities, mainly by the productive ones. The usage of the traditional instruments for the assessment of the economic activities, without taking into account the natural limits, does not offer the possibility of checking whether there is a progress or retrogression with regard to the sustainable development. That is why it is compulsory to use indexes regarding the sustainable development, which aim at performing certain effective activities for the environmental protection and maintaining a favourable relationship with the community.

Taking into account the fact that the sustainable development is one of the objectives of the public policies and of the organizational strategies, several bodies focused on the effort to transpose the concept into practice. The need to assess better the activity of an entity and to align its

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objectives to a complex range of external factors amplified the necessity to define certain performance indexes on sustainability, accepted on a wide scale.

In the development of the indexes regarding the micro-level sustainable development, one must have in view aspects regarding the three piles of the sustainable development (Azqueta and Sotelsek, 2007):

- *Environment*: the compatibility between the activity of the company and eco-systems maintenance. It comprises an analysis of the impact of the companies and their products in terms of resources consumption, generated waste, emissions, etc.;

- *Social*: the social consequences of the company for all the partners: employees (working conditions, wages, non-discrimination, etc.), suppliers, customers (safety and psychological impact of the products), local communities (pollution, respect of the local culture, etc.) and society, generally speaking;

- *Economy*: “classic” financial performances, impact of the exchange value, capacity to contribute to the economic development of the area, observance of the competition principles (corruption absence, dominant position, etc.).

Measuring the environmental and social performances of a company involves a lot of challenges, such as (Barret and Drevetton, 2007):

- The environmental and social aspects are complex and often difficult to quantify;
- The comparison of the environmental and social impact for the companies of the same area is difficult, because of the absence of harmonization when the economic activities are different and diverse and disparate information is aggregate;
- The instructions for the measurement and report of the information are often interpretable;
- The availability and quality of the data regarding the sustainable development often leave a lot to be desired.

All the essential information for the users in order to assess the economic, environmental and social performance of the entity has to be presented so as to reflect the declared limits, spatial dimensions and the time period. This approach is based on the idea that the global performance of an entity can be measured according to the contribution to the economic prosperity, environmental quality and social capital (Maha and Incaltarau, 2011). Briefly, this notion refers to the frame which allows the measurement and report of the results of an entity, according to the economic, social and environmental parameters. In a broader meaning, the term refers to all the processes that an entity performs in order to minimize the unfavourable effects of its activity. This involves a clear

objective of the entity and the acknowledgement of the needs of all users (shareholders, customers, employees, trade partners, public authority, etc.).

## **1. WHICH IS THE UTILITY OF THE INDEXES REGARDING THE SUSTAINABLE DEVELOPMENT AND HOW CAN THEY INFLUENCE THE DECISION-MAKING PROCESS?**

In order to find a relevant answer to these questions, several international and national bodies gathered their efforts, developing indexes/systems of indexes able to measure all the aspects regarding the sustainable development. Unfortunately, no unitary point of view on the manner of approaching these problems has been reached so far. However, we must highlight that in recent years important progresses have been made in approaching the aspects regarding the sustainable development. Such concerns were identified both at theoretical level by developing a conceptual frame, but also at applied level by developing certain models enforceable at macro-economic level (Environmental Vulnerability Index – EVI, Human Development Index - HDI, Environmental Sustainability Index – ESI, Environmental Performance Index – EPI, Commitment to Development Index – CDI, Index of Measure of Economic Welfare – IMEW, Index of Sustainable Economic Welfare – ISEW, Genuine Progress Indicator – GPI, Wellbeing of Nations, Millennium Development Goals Indicators – MDI, Commission on Sustainable Development Indicators – CSD, Sustainable Society Index – SSI, etc.) or at micro-level (ISO, DJSI, WBCSD, EMAS, GRI, etc.). Even if the indicators/indexes developed so far do not succeed to cover all the target objectives it is necessary, in order to ensure a sustainable development, to use the available instruments and to identify new methods and techniques.

For a company, the indexes employed do not have to be too many, so as to be easy to use. Moreover, it is necessary to focus on results' interpretation. The absence of certain norms imposing the use of a range of indexes regarding the sustainable development makes difficult the comparison of the information regarding the sustainable development published by the companies. Most of the companies at international level chose to enforce the GRI referential. At national level, the companies do not use to enforce such norms. We make this assertion after the analysis of the information published on the sites of the important companies.

Then, the main indexes developed at macro-level are reviewed:

*World Business Council for Sustainable Development – WBCSD* (<http://www.wbcd.org>) was developed in 2000 and it is an eco-efficiency index which combines the economic indexes with the

environmental ones. WBCSD develops and ensures the promotion of the eco-efficiency indexes for measuring the progress in economic and environmental terms in different industrial sectors for the members of the organization. An entity is deemed eco-efficient when it supplies goods and services at competitive prices, reducing at the same time the negative effects on the environment during its life cycle.

*Dow Jones Sustainability Indexes – DJSI* (<http://www.sustainability-indexes.com>) is developed by a financial guidance private company from Switzerland which aims at guiding the investors in order to include the sustainable development in the investment strategies. DJSI proposes an assessment system of the strategy based on the concepts of opportunity and risks for the sustainable development. The opportunities reflect the capacity of the entity of exploiting the market potential of the products and services with regard to the sustainable development. The risks focus on strategies aiming at reducing and eliminating the costs related to the environment.

*Eco-Management and Audit Scheme – EMAS* (2003/532/CE) allows the voluntary participation of an entity to an environment and audit management system. From the moment when an entity decides to adopt the EMAS system, it must observe the regulation norms for this system. It ensures a credible and stringent approach of the environment management. EMAS objectives are to ensure an environmental performance, to comply with the environmental laws, to communicate the efforts made in the environmental field and the particular effort for the entity activity integration.

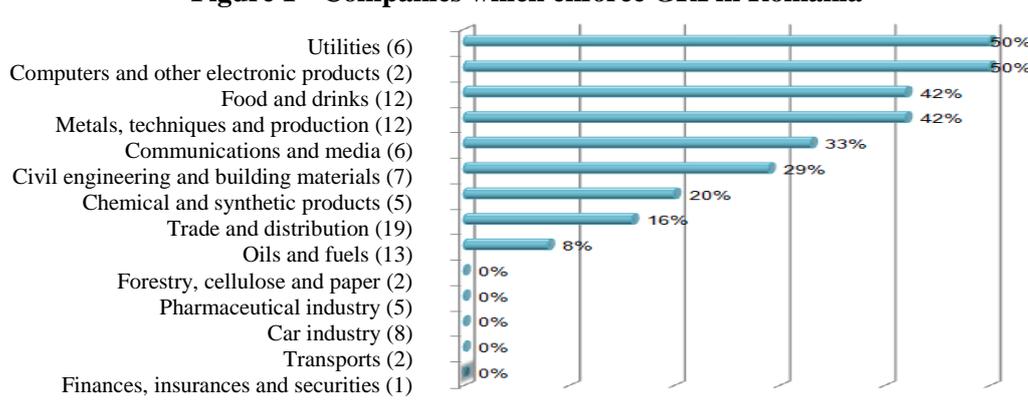
*International Standard Organization - ISO* (<http://www.iso.org/iso/home.htm>) is a non-governmental world organization which aims at issuing a series of technical norms. The family of ISO 14000 standards focus on the environmental performances of an entity, establishes a series of indexes which can measure the performances regarding the environmental management. These indexes can also be determined by the entities which do not have an integrated system of environmental management, being also used in order to communicate the information regarding the environmental management system.

*Global Reporting Initiative – GRI* (GRI, 2002) is an international institution which aims at establishing guidelines for publishing the non-financial information regarding the sustainable development. It was established at the initiative of the non-governmental organizations and of the important companies in Boston by the Coalition for a Responsible Economy (CERES) in partnership with the UNEP. Initiated in 1997, GRI became independent in 2002. In 2006, an update of the previous frame (published in 2002) under the name of G3 was performed, which presents an improvement of the previous provisions for an easier use and the establishment of some pertinent, comparable and easily verifiable indexes. The review process started in 2011, and in 2013 the final

form of G4 will be published, according to the amendments established after the public consultations. The review was determined by the fact that the agenda regarding the sustainable development was amended and the companies face new challenges regarding the report.

GRI adoption is the result of a voluntary undertaking, because no provision obliges its enforcement (Quairel, 2004). According to the KPMG study in 2011 (KPMG has been carrying out this study for 18 years, at present 16 sectors of 34 countries are analyzed), 80% of the reports published by Global 250 entities (77% in 2008) and 69% by N100 publish information according to GRI (KPMG, 2011). In Romania, only 23% of the companies publish reports regarding the corporate responsibility (KPMG, 2011). The Romanian companies were subject to the expertise within the KPMG study only in 2008. One of the most important remarks of the study was that there is a difference of engagement regarding the report of the corporate responsibilities by the multinational companies which operate in Romania, which are more active in other countries (Figure nr. 2.7). The result shows the fact that the Romanian companies are less mature with regard to publishing non-financial information in a voluntary manner.

**Figure 1 - Companies which enforce GRI in Romania**



Source: KPMG, *International Survey of Corporate Responsibility Reporting*, 2008, <http://www.kpmg.com/LU/en/IssuesAndInsights/Articlespublications/Documents/KPMG-International-Survey-on-Corporate2008-copy.pdf>, p.23

At technical level, GRI appears as a management referential. In fact, GRI does not regulate the behaviour of an entity but, rather it helps to describe the result of the adoption and enforcement of certain practices, policies and management systems. GRI's undertaking of normalizing the content of a report is minimal. It leaves the entity up to set up the report, besides the eventual pressure of the users, the imitation and the market being the only constraints for the voluntary publication undertaking.

Most of the companies ranked at the important exchanges publish separate financial and environmental reports. However, certain companies started trying out the issuance of one annual report only which includes financial, economic, environmental and social information. GRI considers that both the financial reports and the ones regarding the sustainable development fulfil fundamental functions by means of which they complement each other. GRI encourages the coordination between the two report processes and hopes that in the long run the financial performance assessment will be influenced in a beneficial manner by the assessment of the economic, environmental and social performances.

## 2. TO WHAT EXTENT ARE THE ROMANIAN COMPANIES INTERESTED IN OFFERING INFORMATION ON THE SUSTAINABLE DEVELOPMENT?

At national level, the Green Revolution Association in partnership with the Green Area Association and the Ministry of Environment developed an index which measures the sustainable development within the companies, *Green Business Index – GBI* (GBI, 2010). The action was initiated for the first time in 2010 in order to assess the situation of 2009, and in 2012 the third report was published. The participation in index determination is based on volunteering. The companies register on the site of the Green Revolution Association and fill in a questionnaire, based on which they will be assessed by independent specialists. The final assessment might require also the supply of certain additional documents and information. In 2010, the questionnaire included questions structured on 7 topics and the hierarchy was made for all the 180 participating companies. The debates with the participants and the difficulties faced during the quantification of the data determined the decision of amending the questionnaire and singularizing the questions on two main groups: industry-production companies and trade-services companies (<http://www.gbindex.ro/ro/organizatori.html>). Table 1 presents the classification of the questions in the questionnaire and their number according to topics and sub-topics for 2010 and 2012. For the determination of the GBI index in the report of 2010, we mention that the 7 topics have different weights, the highest being related to resources use 21.6%.

**Table 1 - Structure of the GBI 2010 and 2012 questionnaire**

	<i>Sustainable development</i>	<i>Impact on the environment</i>	<i>Sustainable transport</i>	<i>Resources use</i>	<i>Buildings condition</i>	<i>Green acquisitions</i>	<i>Waste management</i>
<b>No. questions 2010</b>	18	20	17	35	18	15	20
<b>Sub-topics 2010</b>	5	7	6	9	5	4	6

<b>Weight (%) 2010</b>	11.2	11.2	13.5	21.6	13.3	11.2	18
<b>No. questions 2012</b>	17	20	16	33	18	15	18/21*
<b>Sub-topics 2012</b>	5	5	5	9	5	4	6

\* 18 questions for the industry/production companies and 21 for the services/trade ones

Source: <http://www.gbindex.ro/>

In fact, over the 3 years, the assessment procedure had improved. Therefore, in 2010 the opening degree of the companies for a responsible behaviour with regard to the environment was analyzed, in 2011 the index was adjusted on the two sectors, and in 2012 environmental performance indexes were introduced in all the topics of the questionnaire, and the application generates the SWOT analysis for each company (GBI, 2012). After the classification carried out the top companies receive prizes for the two groups of activities and, within these ones, for each topic.

In 2010, most of the participating companies were subsidiaries of the foreign companies, the situation changed a little in 2012, 60 % of the companies have foreign capital. According to the GBI report of 2012, 87% of the participating companies drafted a sustainable development strategy, but certain companies mentioned that they developed no such policy, because the developed activity does not affect the environment\*, and one of them mentioned that an action plan for the environment represents an absolute novelty (GBI, 2012). The obtained results cannot be extrapolated at national level, because of the small number of participants (almost 300 of the total no. of 235,000 companies) and of the territorial distribution (more than 60% are from Bucharest). However, this initiative must be welcomed and supported in order to make the companies aware of the long-term beneficial effects of adopting a responsible behaviour towards the environment.

In order to analyze indexes situation at micro-level in Romania, we had in view the companies ranked at the Stock Exchange of Bucharest in the 1<sup>st</sup> category. In this respect, we consulted the websites of the 26 companies, in order to identify information regarding: ISO 14001/EMAS certification, OHSAS 18001, existence of the integrated environment authorization, statements regarding the environmental and social policies, involvement in volunteering activities, investments for the environmental protection or social actions, current expenses for the environmental protection, environmental or sustainable development reports, eco-labels, conflicts, penalties or fines related to pollution, CSR reports, etc. The absence of the constraints regarding the issuance of such information determined the partial finding of the information had in view, which imposed the direct demand of this information, but unfortunately the response rate was very low. Analyzing the information published on the websites of the companies, we can state that: 30.7%

\* In fact, the indirect effects of the developed activity are omitted and the hidden consumptions are not taken into account. For instance, the production of a cup of coffee supposes a consumption of 140 litres of water, and of one kilo of beef almost 16,000 litres of water.

have an ISO 14001 certificate (Alro, Antibiotice, Transelectrica, Electromagnetica, Oltchim, Prefabricate București, Transgaz, Socep), 15% have integrated environmental authorizations (Alro, Antibiotice, Transelectrica for 98.83% of the locations, Concefa), 19% have an OHSAS 18001 certificate (Alro, Antibiotice, Transelectrica, Electromagnetica, Prefabricate București), only 7% provided information related to environmental investments (Alro 20 million dollars and Oltchim 10.3 million lei), 3.8% presents on the website statements regarding the policies of improving the performances related to the environment, involvement for waste collection. A report on the sustainable development is available only at Petrom (a part of the OMV group), and the BRD annual report includes a chapter consecrated to the environmental information (energy consumption reduction, water consumption reduction, paper acquisition from certified sources, displacements reduction).

Given the fact that there is little information published on the sustainable development, the websites of the multinational companies' subsidiaries were consulted too. They provided several data, but there were no strict requirements at national level which impose the issuance of these data, so they chose to publish the sustainable development reports at group level and not for the Romanian subsidiaries. Therefore, of the 30 subsidiaries had in view, 73% have an ISO 14000 certification (in the report for the year 2011, Danone group stated that 58% of its locations are certified, 51.6% of the GDF SUEZ group, and 98% for Arcelor Mittal), 50% have an ISO 9000 and OHSAS 18001 certification (89% of the locations of the Arcelor Mittal group) and only 6.67% detained information regarding the integrated environmental authorization (Danone and Arcelor Mittal for the platform of Galați). Dacia and Ford present the list of the locations for the collection of the out of service cars, offers information regarding a responsible driving, which reduces pollution, CO<sub>2</sub> emissions. In fact, Dacia received the eco<sup>2</sup> label for the reduced level of CO<sub>2</sub>. Information regarding the environmental protection was found in all the 30 companies, and 70% have in the main menu a box for the sustainable development, CSR or the environmental protection. Coca Cola and Ursus Breweries have had individual reports for the Romanian subsidiaries since 2012 and the annual report of Rompetrol includes a chapter on the sustainable development. Analyzing the reports drafted at group level, we noticed that only 20% of them use the GRI norms (Siemens being the only company which obtained A+; Coca Cola, Arcelor Mittal and GDF SUEZ have a B+ certification and Danone and Raiffeisen did not mention the certification level). Mol, Coca Cola, Holcim and Vodafone entered in the DJSI.

The study showed that most of the Romanian companies (except the subsidiaries of the foreign companies) are concerned of the sustainable development at declarative level. The websites

of certain companies (Transelectrica, Impact, and Turbomecanica) present statements regarding the environmental policy, but do not present the manners of implementing and monitoring it.

These conclusions are also supported by the information published by the National Statistics Institute, which mentions that in 2010, 1,414 companies implemented environmental management systems (1,181 in 2008), less than 1% of the total number of companies. The same thing can be said about the eco-labelling; only 6 products at national level received this certification.

The analysis carried out shows that the environmental indexes are instruments which offer a good cost-performance ratio, because (Singha et al., 2012):

- They allow the integration and optimal usage of the dispersed and incomplete primary data, contribute to organization of the existing data and serve as assessment basis (for instance, when the primary data is not available on an annual basis);

- Are integrated with other data (particularly, with traditional financial information and can be associated to the social aspects in order to ensure the sustainable development) offering information mainly to the external users;

- Represent an important basis for the analysis and integrated modelling of the environmental information, such as the cost-efficiency analysis, modelling of the economic scenarios and previsions;

- Because of an integrating frame, they allow framing the sectorial policies and indices in a global economic context;

- Guarantee the comparability of the results, because of the common concepts and methods.

Surely, the advantages offered by the use of indexes regarding the sustainable development are substantial and have a major impact on adopting decisions. For instance, at UE level, with regard to the use of the greenhouse gas emissions certificates, over the period 2005-2007, the distribution of too many certificates was a signal for the modification of the policy, for that it was reduced in the following period.

## CONCLUSIONS

To sum up, the indexes system regarding the sustainable development is in a continuous change, because of the permanent modifications of the information needs. Moreover, we must highlight that the implementation of such a system at micro-level offers to the entities several advantages in the planning, prevision and control of the actions carried out for the environmental protection. By analyzing the environmental information published by different groups, we noticed

the importance of reporting them and, moreover, the need to adopt certain norms which can ensure their unitary treatment. Additionally, the absence of norms leads to the presentation of diverse information which does not allow performing comparisons among entities of the same activity field or even for the same entity from a financial year to another, because of the modification of the approach manner and the presentation of the respective information. Unfortunately, because of the weak approach of the aspects regarding the sustainable development, the Romanian companies lose their competitiveness as compared to the companies from the UE and from other countries.

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