IDENTIFICATION OF SOME MODALITIES OF ASSESSMENT AND MANAGEMENT OF THE ENTERPRISES SUSTAINABILITY RISK

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Abstract:

Economic growth can often conflict with environmental and social issues. This aspect can be seen not only at the macroeconomic level, but also at the microeconomic level, implicitly at the company level. However, companies can find approaches that might allow them, in addition to economic development, also the social welfare and environmental conservation. The risks are of course reformulated at this juncture, and the enterprises must find the most efficient ways to manage besides the classic risks, highlighted by theory and practice, also the environmental and social risks. In this context, the article aims to present some possibilities for evaluating and managing these risks, starting from the model Conan and Holder (1979).

Keywords: *corporate sustainability, social and environmental risks, social and environmental management system, enterprise risk management*

JEL classification: *G32, A13, M14, M21*

Introduction

Risk is a complex concept, multidimensional with quantitative connotations, but especially qualitative, difficult to synthesize numerically. Of course, the acceptable level of risk for a company is determined according to the risk attitude of the manager and the shareholder as well as the operating conditions of that economic activity. Therefore, the maximum acceptable level of risk is most likely the level that allows the costs of the company to be covered and to obtain a minimum profitability.

Among the risks that a company may face are the financial risk, the commercial risk, the managerial risk, and in the case of contracting the investment bank loans, there is also the guarantee and the sensitivity risk. The management of these risks, as well as others, identifiable or less identifiable (e.g. reputational risk, some aspects of the operational risk), at the company level, is called the enterprise risk management.

It should be noted that these risks can be thought of as coming from the micro and / or macroeconomic level. At the microeconomic level, risks are generally generated by the inflow of income and the expansion of some expenses or unforeseen expenses. At the macroeconomic level, frequent and unclear legislative changes, especially in the fiscal sphere, as well as the economic, social, environmental and political imbalances of the national economy can lead to a serious impairment of the company's activity.

In the context of discussions on sustainability, enterprise risk management should contain both information, and especially methods of avoiding / mitigating risks such as risks of natural disasters, climate change, ecosystem risks, political risks, epidemiologic risks, globalization risks, risks regarding social justice etc.

Currently, companies can no longer overlook the complexity of the impact of economic, social and environmental aspects, and these realities are gradually included in the concept of risk management of companies' sustainability. If at the microeconomic level the risk is easier to detect, having as a possible cause the manifestation of recurrent economic, social and environmental

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problems, at the macroeconomic level, except for the modification of the law regarding the activity of the company, the risk on the company is rather indirect and more difficult to identify, except the situation when the risk hits everyone similar (e.g. epidemiologic risk).

Therefore, the risk attached to sustainability can be thought of as incorporable in the risks presented above, capable of modifying the intervals of risk interpretation or it can be considered as an additional risk, distinct from these and summed up in the total risk of the company. This differentiation can be achieved depending on the availability and ability of the company to move to a business model assignable to the circular economy.

At the same time, it is worth noting that companies are facing a decisive paradox: if they pursue the objectives of profitability, ignoring social and environmental responsibility, they will be charged sooner or later for competition and will see their profit diminished or even close their business. If they take into account the immediate integration of social and environmental aspects into their business without a phasing, they may suffer irreparable losses in the near horizon, which may even lead to bankruptcy. However, in order to achieve valuable long-term goals, companies must convince the shareholder that they want short-term results to see the medium-term and long-term benefits for the company and therefore invest in long-term value creation. Thus, increasing the ability of a company to properly manage, inter-temporally, the risks of the sustainability of companies is the central point of our analysis.

Description of the Problem and Literature review

The specialized literature but also the risk managers are increasingly addressing the issues of business sustainability, business sustainability management, the risk of business sustainability and concerns of administration of these risks through the enterprises sustainability risk management (ESRM).

This concept is rather a new paradigm, because it is intended to be an alternative to the classic, traditional, growth and business management and maximizing profit model. Thus, although it continues to focus on corporate economic profitability and the risks associated with it, ESRM pursues above all the risks associated with sustainable development such as justice and social equity, environmental protection. Practically, the literature of this term summarizes, among others, concepts such as: corporate social responsibility, (European Commission, 2002), sustainable development (Brundtland Report and subsequent literature developments), the triple bottom line (Elkington, 1999), corporate sustainability (Dyllick and Hockerts, 2002, Schaltegger et al., 2002, Visser, 2007). Thus, the concept of managing the risk of enterprise sustainability (ESRM) is based on the concept of "triple bottom line" (see figure 1) and also includes strategic and cultural dimensions of business management (Yilmaz and Flouris, 2010).

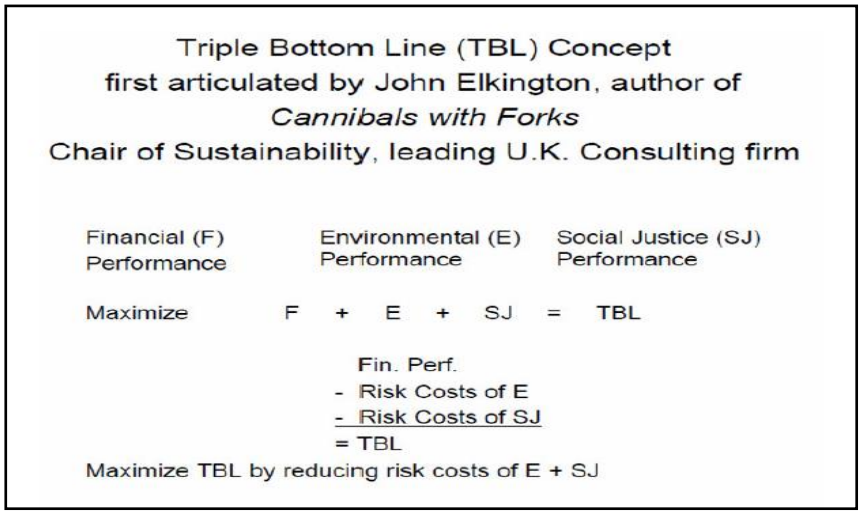

Figure 1 - The concept of triple bottom line according to the enterprise sustainability risk management

Source: Anderson, 2006, în lucrarea lui Yilmaz și Flouris 2010, p. 167

However, the concept of enterprise sustainability risk management (ESRM) is not currently clearly defined, with aspects that exclude different characteristics, especially regarding the integration of the environmental and social dimensions. Even the concepts outlined above, such as corporate social responsibility or the triple bottom line, do not really describe sustainability, but rather the responsibility, lacking the inter-temporal trade-offs (Bansal and DesJardine, 2014).

Methodology and Data

The article aims to formulate a possible way of identifying and evaluating the risks associated with the sustainability of companies from an original perspective. The approach is theoretical and logical, and the starting point is the model Conan and Holder (1979) for evaluating the risk of bankruptcy. At the same time, for the distinct approach of economic and social risk management (E&S risk management) we will use the information of the European Bank for Reconstruction and Development (EBRD) instrumentation, systematizing them in a personal way.

Results

The global economic and financial community is becoming increasingly aware that the environmental and social problems associated with human activity, in general, but especially with commercial activity, can create risks for a business, but also for the community it belongs to.

Thus, environmental and social problems can generate delays in production at the company level, problems associated with the revocation of operating licenses, difficulties in managing cash flow, unforeseen expenses, difficulties in accessing bank loans and not least negative publicity.

In this context, through its activities, a company must be able to promote the principles of sustainable development and to implement social and environmental risk management systems to limit its own exposure to these risks. The risks may be of the company concerned, direct or indirect, generated by its suppliers or customers.

The risks can be internal, of firm, or external, spilling from the social, economic, political and environmental sphere on the company. If the internal risks can be managed with some efficiency by the company, the external risks can be unpredictable, sudden and powerful, difficult to quantify and manage. Awareness of the problems and the preventive management, but also the management of the environmental and social risks properly carried out from the initial phase, can improve the reaction of the companies to the production of some unforeseen environmental and social events.

Failure to manage social and environmental issues effectively can lead to financial, reputational and legal implications. Among the financial implications we can identify: - costs incurred for the decontamination and remediation of the equipment affected by contamination (especially in industries such as mining, processing, chemical, pharmaceutical, oil, gas, etc.),

- Lower value of assets, - low labour productivity,

- Increase of personnel costs, including those related to accidents at work,

- Costs associated with the payment of fines or strict compliance with the regulations in the field.

Regarding the reputational implications, we can identify, against the background of the deterioration of the image of the company and its products: the decrease of sales, the loss of customers, the loss of some suppliers, the increase of the costs related to the recruitment and maintenance of personnel, and in case of the need of a credit, the difficulty of access and / or decrease the value of the collateral.

Among the legal elements that have an impact on the company that can affect the company are:

- Legal obligations determined by waste disposal and restoring the situation before an environmental event,

- Fines and payment of damages generated by the legal liability for the deterioration of health,

- The environment or the property, going until the withdrawal of the operating licenses and the closing of the activity.

All of these can be a good motivation for integrating environmental and social aspects into a company's risk management. These aspects can be evaluated quantitatively, value or can be qualitatively evaluated.

It is worth noting that in order to achieve a proper management for a company, it is necessary to know the model or paradigm of the operation of the company, for example if the company has a strong inclination for the circular economy and for an adequate management of environmental and social risks (ESR) then we can consider that the whole mechanism of its operation, from the administration and processing of raw materials to distribution and profit, integrates these risks, or if, on the contrary, the company is still in an incipient phase in realizing these risks, perceiving and evaluating them as distinct risks. Thus, starting from Conan and Holder's (1979) model of bankruptcy risk assessment we can construct the following equation:

$$TR = FR + CR + GR + MR + SR + ESR \quad (1)$$

Where: TR = FR + CR + GR + MR + SR is the equation Conan and Holder (1979).

RT - total risk

RF - financial risk

RC - commercial risk

RM - managerial risk

RG - collateral risk, for the bank credit situation

RS - the sensitivity risk, only for the situation of some investment credits

ESR - environmental and social risk, the risk subject to our analysis

In our study, the most analysed risk is the environmental and social risk (ESR). Thus, considering the availability, but especially the ability of a company to have an integrated environmental and social management system (ESMS), we can consider the existence of the following situations (see table 1).

Table 1

The connection between the legal compliance situations with the standards regarding the environmental and social management system (ESMS) and the quality of the management, as well as the classification in risk categories and their scoring

Legal compliance with the standards regarding the international environmental and social management system	Quality of management	Risk category	Score offered (maximum)
The company complies with international environmental and social standards, i.e. more than three quarters of operations are certified according to at least one international standard, has ESMS objectives and periodically evaluates progress; disseminates information appropriately	Excellent	Very low risk	50
The company can be certified at the level of an international ESMS standard; sets goals in this regard and internally evaluates progress; disseminates information appropriately	Good	Low risk	35
The company has partial coverage of environmental and social risks and has limited commitments regarding compliance with ESMS; limited dissemination of information	Satisfactorily	Moderate risk	28
The company does not have an ESMS or does not provide information about it	Poor	High risk	7

Source: Authors' own concepts based on the European Bank for Reconstruction and Development tool on environmental and social risk management

In the situation of an excellent or very good level of compliance with international law we can consider that the risks related to environmental and social problems are low and assimilated to the other risks of the company, so perfectly integrated into them, increasing modestly the risk margins from the original Conan and Holder model.

In the other three cases, we will present a vision about a possible qualitative assessment of the environmental and social risk and its management (table 3). It should be mentioned that the environmental and social risk is in fact the result of the two types of risk elements pursued: environmental and social, so first it must be developed an aggregate risk model that can be evaluated as in table 2.

In addition to the qualitative assessment methods, it can be built indicators that will also quantitatively reflect the above aspects such as:

- Weight of raw materials that comply with the requirements of the environmental and social management system in the total volume of raw materials;

- Share of the number of employees involved in ESMS training programs in total employees,

- Weight of the number of products that meet the ESMS requirements in the total volume of products,

- The weight of the number of programs targeting ESMS at the community level in the total number of programs offered to the community, etc, of course aiming at increasing these weights from year to year.

Table 2

Qualitative highlighting of the aggregation of environmental and social risk elements

Environmental risk	**Low Risk**	x	x	x						
	Moderate Risk				x	x	x			
	High Risk							x	x	x
Social risk	**Low Risk**	x			x			x		
	Moderate Risk		x			x			x	
	High Risk			x			x			x
Environmental and social risk	**Low Risk**	**x**	**x**		**x**					
	Moderate Risk			**x**		**x**		**x**		
	High Risk						**x**		**x**	**x**

Source: authors' own conception, x - classification in the risk category

Table 3

The connection between highlighting the elements of environmental and social risk and the quality of the management, as well as the classification of risk categories and their scoring

Risk elements	Level of compliance	Quality of management	Risk category	Score offered (maximum)
Environmental risk				
Matching raw materials and technologies (inputs) with ESMS	High	Good	Low Risk	5
	Adequate	Satisfactorily	Moderate Risk	4
	Limited	Poor	High Risk	1
Compliance of final products and services and externalities (outputs) with ESMS	High	Good	Low Risk	5
	Adequate	Satisfactorily	Moderate Risk	4
	Limited	Poor	High Risk	1
Social risk				
Personnel training on environmental and social risks	High	Good	Low Risk	5
	Adequate	Satisfactorily	Moderate Risk	4
	Limited	Poor	High Risk	1
Shareholders' commitments regarding compliance with ESMS requirements	Firm / Yes	Good	Low Risk	5
	Formalized / Maybe	Satisfactorily	Moderate Risk	4
	Reactive / No	Poor	High Risk	1
Providers compliance with ESMS	High	Good	Low Risk	5
	Adequate	Satisfactorily	Moderate Risk	4
	Limited	Poor	High Risk	1
The company's commitments to the ESMS regarding the community	High	Good	Low Risk	5
	Adequate	Satisfactorily	Moderate Risk	4
	Limited	Poor	High Risk	1
Compliance with ESMS requirements - aggregate level	**High**	**Good**	**Low Risk**	**35**
	Adequate	**Satisfactorily**	**Moderate Risk**	**28**
	Limited	**Poor**	**High Risk**	**7**

Source: Authors' own conception

When progress is noted, i.e. the annual difference is positive, they can be scored with 1 and in the opposite situation with 0 so that the final result of the adequacy to the environmental and social requirements of the company can be totalized and accounted for.

Returning to the original Conan and Holder model and considering the company as having an excellent level of compliance with international environmental and social requirements, we nevertheless consider that:

-The financial risk (FR) can be affected by the increase of the financial and personnel expenses and the part of the revenues could suffer as well due to diminished or deferred operating income. Therefore, the function of the Z-score could however have the margins changed. It is worth mentioning that the original Conan and Holder model is also an empirical one, therefore on different regions and at different time periods, for different branches or industries of a national economy the values and margins of the Z function are different from the original version.

-The commercial risk (CR) will have to continue to respect that the average period of collection of receivables from customers has to be below the average period of payment of the suppliers. However, it should be noted that different business models between customers, suppliers and the firm regarding the ESMS compliance can lead to delays in a number of days.

-Guarantee risk (GR), in case of bank loans may or may not be affected by the adaptation to environmental and social requirements depending on the elements subject to the guarantee. Thus, it is preferable that the guarantees to be the classic ones. Bank deposits, bank promissory notes, guarantees issued by the Deposit Guarantee Fund in the banking system (FGDB).

-Managerial risk (MR) can also be affected by compliance with ESMS, but it is assumed (as above) that the requirements and standards of ESMS are largely respected by the company, and the qualification and experience of the manager in the field can also be considered compliant, not affecting this risk.

-The sensitivity risk (SR), for the medium and long term investments, may or may not be affected by the ESMS implementation, but as long as the financial rate of return continues to be higher than the interest rate related to the credit in the approval, the sensitivity risk may be in good measure not affected.

Thus, the total risk may undergo slight upward adjustments, probably by changes in the bumps of the three risk classes, or the total risk may remain unchanged, with adjustments within each type of risk or risk offsets, for example a higher financial or commercial risk can be tempered by lower managerial risk or guarantee.

It should be noted that in the context of a pandemic, such as the Coronavirus, in addition to the obviously increased social risks, there is the huge possibility of a rapid bankruptcy risk materialized in the situation of not adapting the existing business to another business model and to another perception of reality. The financial, commercial, banking and guarantee risks and sensitivity can explode spectacularly, including the managerial risk in the context of not adapting to the new partnership relations with customers, suppliers and the state. Debt freeze, designing a deferral term from at least 3 to 6 months, including in relation to the state, but also between business partners and especially the provision of strong consulting services on business redesign, so that the economic and social effects at company level to be minimal are the best solutions to minimize the risk of bankruptcy at company level.

Conclusions

The paper aims to make a theoretical foray into the incorporation of social and environmental risks into the classic framework of risk assessment and management.

Also, the paper aims to identify and evaluate the risks associated with the sustainability of companies, by formulating a new methodology, starting with the Conan and Holder model. The approach in this regard is theoretical and logical; the formalized methodology is still an incipient one, later requiring the construction of purely applicable models in various regions, countries, sectors and industries.

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