"You get what you measure": evaluation, Received 014 June 2014 reporting and measurement of sustainability in Revised 22nd December 2014 large companies in Italy

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Abstract

Purpose of the paper: This research has the aim to explore which are the main sustainability quantitative tools, how some of the largest companies in Italy quantify their "degree" of responsibility and if there is a balance between the environmental and the social aspect.

Methodology: This is an explorative study conducted through a content analysis. Three Sustainability Reports published by three large companies (Eni, Fiat and Barilla, selected considering data provided by Mediobanca) have been analyzed, examining in particular the sustainability indicators.

Findings: The study reveals that large companies report their sustainability information following the GRI guidelines, through a series of indicators related both to the environmental and social dimension of sustainability.

Research limits: There are two main limits: firstly the explorative nature of this study, secondly those findings reflect the approach of the largest companies only, which follow the GRI guidelines.

Practical implications: The attention shown by the selected companies demonstrates that sustainability is becoming an increasingly relevant matter for companies, for their relationships with stakeholders and for their reputation as well.

Originality of the paper: Research on sustainability quantification is internationally in a developing phase: its application to an Italian context represents the originality of this study.

Key words: sustainability quantification; sustainability reporting; environmental and social indicators; large companies

1. Introduction

Sustainability is becoming a widespread topic of debate in the scientific community as well as an unavoidable objective to achieve, considering its global meaning. As a matter of fact, achieving sustainability means combining its three essential dimensions (environmental, social and economic) and not only considering one of them. In other words, this means that sustainability presupposes coherence and sharing of specific principles considering all the cited dimensions and not only one of them. To say it more concretely, it is not consistent to safeguard the environment and, at the same time, not ensuring adequate working conditions and vice versa. On the other hand, the same definition of sustainability is not limited to one of its dimensions,

as specified in the Report of the World Commission on Environment and Development: sustainable development is defined as the «development that meets the needs of the present without compromising the ability of future generations to meet their own need». There is no reference to environment or to social and economical issues but the objective of a sustainable development (Gladwin *et al.*, 1999) can be achieved through the actualization of sustainability initiatives in each one of its three dimensions.

Certainly, a development based on sustainability principles requires a deep awareness about the ethical origin of their nature, otherwise it becomes only a façade, an useless mask: afterwards it is necessary to implement these principles, making sustainability concrete; in summary sustainability has to be firstly conceived abstractly and then in a more practical dimension. Johnston *et al.* (2007) have identified a series of considerations in order to achieve the objective of sustainability: the growth in material consumption requires more natural resources, but they are not unlimited; the degradation of the biological system of the Earth; imbalanced division of resources with benefits to few and costs to many; the basic human rights (such as water and food) are part of the natural cycle; present and future generations will pay the disasters caused to ecosystems; lack of awareness about the global environmental changes.

As stated, therefore, sustainability cannot continue to be perceived only from an abstract point of view: as mathematicians say, it is a necessary condition, but not a sufficient one, and the considerations listed above represent a concrete example of the impelling need to change some bad human habits.

In this revolutionary process companies can also make a contribution through a responsible conduct. From this point of view, the business vocabulary has been enriched by concepts as *Corporate Social Responsibility* (Siano, 2012; Lindgreen and Swaen, 2010; Moscarini, 2009; Crane *et al.*, 2008; Garriga and Melè, 2004; Epstein, 1987; Bowen, 1953), *Corporate Social Performance* (Sciarelli, 2012; Sethi, 1975) *Social Accountability* (Gilbert and Rasche, 2007; Laufer, 2003) and *Corporate Sustainability* (Salzmann *et al.*, 2005, Van Marrewijk, 2003), a terminology which shows the interest and the necessity to integrate companies' activities with a new awareness about their *social responsibilities*. On the other hand, the relationship between economy and ethics has been studied by Sen (1987; 1993; 1997), who received the Nobel Prize in Economic Sciences in 1998.

According to the European Union, Corporate Social Responsibility can be defined as the way companies take responsibility for their impact on society (http://ec.europa.eu)¹ even if Dahlsrud (2006) underlines that there are different definitions of CSR: through a content analysis, this scholar has highlighted the existence of five common dimensions among these definitions (environmental, social, economic, stakeholder and voluntariness).

Available at http://ec.europa.eu/enterprise/policies/sustainable-business/corporate-social responsibility/index_en.htm. Last consultation on 23th February 2015.

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The concept of *Corporate Social Performance* has been clarified by Carroll (1979): it is the integration between corporate social responsibility, corporate social responsiveness and social issues (Wartick and Cochran, 1985); Wood (1991) defined CSP as "a business organization's configuration of principles of social responsibility, process of social responsiveness, and policies, programs, and observable outcomes as they relate to the firm's societal relationships" (p. 693).

The concept of *Social Accountability* is more general and linked to ethics: Gilbert and Rasche (2007) make reference to the international standard Social Accountability 8000 (SA8000) which is defined as the way to implement business ethics. Finally, the meaning of *Corporate Sustainability* is more specific: according to Dyllick and Hockerts (2002) it is connected to the approach of a company to the different typologies of capital (economic, natural and social). In other terms, these are the three dimensions of sustainability.

According to Carroll (1979) social responsibility can be defined considering four categories of business performance, that are the economic, legal, ethical and discretionary ones. Economic responsibilities are relative to the production of goods and services required by society; legal responsibility implies the respect of laws and regulations; the ethical dimension regards a series of behaviours which are not regulated by laws but they are expected to be respected by society; finally the discretionary responsibility, which is relative to voluntary activities such as philanthropic contributions.

Even if these concepts are connected, some shades of meaning differentiate them. This paper is mainly focused on the concept of sustainability, in particular considering the way large companies quantify their commitment coherently with its dimensions: the purpose is to highlight the approach of the largest company in Italy to the measurement of sustainability. To this end, the first part of the paper is dedicated to the analysis of two important quantification tools, that are the Sustainability Balanced Scorecard and the Sustainability Report; in the second part, the authors spotlight in concrete the approach of some companies to this issue.

2. From a shareholder to a stakeholder perspective

A corporate responsibility performance presupposes a greater attention to all the subjects who own an interest linked to the economic activity: as observed above, in fact, the concept of sustainability is not focused on a single dimension or on a single kind of subjects but, on the contrary, it considers a plurality of them. This means that, from a business point of view, a traditional shareholder approach is not suitable to describe this phenomenon, but it is essential to consider all stakeholders in this process. The stakeholder theory (Sciarelli, 2012; Rusconi, 2006) is a conceptual model theorised by Freeman (1984) and it represents a managerial theory strictly linked to the concept of Corporate Responsibility, as observed by Freeman *et al.* (2006). As a matter of fact, these scholars state that "a conceptual scheme that separates the social responsibilities of a corporation from its business responsibilities has long outlived its usefulness" (p. 5), underlining

the connection between ethics and business activity: from this point of view they replace the expression "Corporate Social Responsibility" with "Company Stakeholder Responsibility" revealing its central role. This new conception of CSR is based on four levels of commitment, which represent a path to follow in order to unify the stakeholders' expectations to the business ethics dimension. At the first level ("Basic Value Proposition") managers or entrepreneurs have to comprehend the way they can make stakeholders better off; at level 2 ("Sustained Stakeholder Cooperation") it is important to understand the basic values and the principles to apply in the relationship with stakeholders; at the third level ("An understanding of broader societal issues") they have to understand whether their values fit or contradict trends and opinions present in society; finally (level 4) an ethical leadership is achievable only by understanding the interests of the stakeholders and sanctioning a conjunction point between a responsible conduct and the priorities of all stakeholders.

The tetra-partition identified by Carroll (1979) is useful to comprehend the relationship between corporate responsibility and the stakeholder theory. According to this scholar, a corporate social performance can be related to four main areas, that are:

- economic: main stakeholders are consumers and investors;
- legal: main stakeholder is the government;
- ethical: main stakeholder is the society;
- discretionary: main stakeholder is the community.

It is clear that an approach based on responsible initiatives has to be addressed in order to satisfy the needs of a multiple typology of stakeholders and not only heeding the shareholders necessities. The importance of a stakeholder network is stressed by Perrini and Tencati (2008) who observed that only the development of a net of relationships with all stakeholders can assure the creation of value, that is the final aim of a company, in a sustainable way. They summarized, furthermore, the concept of stakeholder value, as perceived by every single stakeholder:

- an adequate remuneration for shareholders, through the management of risks and an efficient and transparent corporate government;
- good working conditions for employees, characterized by important values and principles, in order to enhance their skills;
- a good supply system in order to satisfy the customers' needs;
- knowledge sharing and co-makership with suppliers;
- transparent relationships with financial partners;
- respect of environmental and future generations' rights.

3. Sustainability Evaluation: a literature review

The practical action of sustainability can be translated in a quantitative form through the use of some tools and indicators: in other words, the ethical and ideological condition can be materialized through behaviours and attitudes which have an impact on society, an impact that can also be numerically measured. An example of this process can be found analyzing the International Standard ISO 14031, focused on the

environmental dimension of sustainability, in particular on the evaluation Fabrizio Baldassarre of an environmental performance in the context of an environmental management system: this standard presents the evaluation process as a measurement of sustainability in large sequence of actions inspired by the Deming cycle (Plan- Do- Check- Act). companies in Italy The following figure (fig. 1) illustrates this process.

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Fig. 1: The Environmental Evaluation Process

Plan

Environmental performance evaluation plan Selection of indicators for environmental performance evaluation

Developing and using data and information Collecting data Analyzing and converting data Assessing information Reporting & Communicating

Check & Act

Reviewing and improving environmental performance evaluation

Source: adaptation from ISO 14031 MANCA CITAZIONE IN BIBLIOGRAFIA

Jasch (2000) classifies the environmental evaluation indicators in five typologies that are absolute, relative, indexed, aggregated depictions and weighted evaluations. They have to respect the following principles:

- comparability;
- orientation to objectives;
- balance, describing problems and benefits at the same time;
- continuity, relating each other with corresponding time series and units
- frequency, so they have to be derived periodically;
- comprehensibility.

Examples of environmental indicators can be found also in Dias-Sardinha and Reijnders (2001), who link performance evaluations to strategic aims: in particular, they state that performance objectives can be used in performance evaluation (for example the reduction of environmental burden by up to a specific factor represent at the same time an objective and also an evaluation parameter).

A more general overview on sustainability performance evaluation has been made by Epstein and Roy (2001). They present a framework projected to evaluate sustainability performances, highlighting a series of metrics to control. In particular, their framework relates sustainability actions, corporate and business unit strategy, sustainability performance, stakeholder reactions and long term corporate financial performance. The relationship between the financial performances and the sustainable ones has been a topic for a series of studies: specifically McGuire et al. (1988) and Russo and Fouts (1997) found a positive association between high environmental performances and a high Return on Investment; a similar finding was obtained by Hart and Ahuja (1996), who showed that the green choices contribute to make Return on Sales (ROS), Return on Assets (ROA) and



Return on Equity (ROE) grow; Jaggi and Freedman (1992) demonstrated an opposite trend, that is the negative association between the proenvironmental performances and the financial indicators. According to Artiach *et al.* (2010) the so called Corporate Sustainability Peformance (CSP) is strictly linked to the firm size, in particular the leading CSP companies are essentially large: moreover, these scholars found that their profitability, expressed in terms of ROE, is higher than the conventional company's one. Lee and Farzipoor Saen (2012), in a study based on the application of a data envelopment analysis technique, distinguished some indicators relative to the corporate sustainability performance, as shown in the following table.

Tab. 1: Measures of Corporate Sustainability Performance

CSM performance dimensions	KPIs	Measures
Economic transparency and profitability	Corporate governance	 No. of board meetings and stakeholder meetings Personnel costs/expenses of communication and relevant meetings
	Corporate transparency and accountability	- Material costs-design and printing costs of communication materials (e.g. annual sustainability reports, financial reports, etc.) - Personnel/administrative costs
Social responsibility	Human rights	 No. of employee training hours for corporate social responsibility (CSR) Expenses to train and promote CSR internally
	Social contribution	 No. of social events with local communities Amounts of donations Volunteering hours/ personnel costs
Environmental sustainability	Environmental management and innovation	- No. of green technology development projects - Expense of environmental management - Costs of environmental product innovation (# of products patents, employee hours to develop product innovations)

Source: adaptation from Lee and Farzipoor Saen (2012)

Granted this, it is important to underline that there are some tools to quantify the impact of sustainability choices: indicators and measurement units are used to express numerically the contribution of companies to the evaluation, reporting measurement of sustainability in large social and environmental cause. From this point of view, there are two main companies in Italy tools to analyze. These are the Sustainability Report and the Sustainability Balanced Scorecard, which represent concretely the possibility to observe how the responsibility initiatives affect the economic activity.

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3.1 The Sustainability Balanced Scorecard

The Balanced Scorecard, (Kaplan and Norton, 1992) represents, in its more general conception, a managerial tool which describes the company's strategic objectives through a series of indicators, financial and non (Alberti and Bubbio, 2000). Through this tool, managers can translate strategies in reference to four kinds of perspectives, that are the financial perspective, the customers perspective, the internal business perspective and the innovation & learning one (Baldassarre, 2006). This introduction is necessary because the Sustainable Balanced Scorecard (SBSC) represents the evolution of the traditional version, allowing companies to transform a sustainability strategy into a concrete action (Epstein and Wisner, 2001). The SBSC is particularly suitable to formulate and implement a sustainability strategy, mainly because of its property to link short term financial aims with long term environmental and social ones. Its framework is still under study: Nikolaou and Tsalis (2013) propose a combination between the GRI guidelines and scoringbenchmarking techniques in order to measure sustainability performances, using sustainability reports as a data source: they suggest to consider a series of GRI indicators in reference to the classical four BSC perspectives. Figge et al. (2002) state that a Sustainability Balanced Scorecard could be projected following a sequence of steps:

- 1) choosing a strategic business unit;
- 2) considering the business unit, it is necessary to identify the environmental and social exposure in order to comprehend the most important environmental and social aspects from a strategic point of view;
- 3) determining, classifying and integrating environmental and social aspects on the basis of their relevance.

According to Epstein and Wisner (2001) some companies are already using performance measures to quantify sustainability, including indicators related to the four BSC perspectives (method also adopted by Dias Sardinha et al., 2007), as shown in the table 2.



Tab. 2: Some examples of Balanced Scorecard measures for sustainability

Financial		Cust	omer
Environmental	Social	Environmental	Social
- % environmental costs direct-traced - energy costs -disposal costs -cost avoidance from environmental actions	- # employee lawsuits - training budgets - reduction in hiring costs - increased sales from improved reputation	- # "green" products - customer returns - # stakeholder communication - functional product eco-efficiency (e.g., energy costs of a washing machine)	- customer perception - # of cause related events supported - customer satisfaction - social report requests
Internal Busin	ness Processes	Learning a	nd growth
Environmental	Social	Environmental	Social
- # LCA performed - % material recycled - % waste to landfill packaging volume greenhouse gas emissions - air emissions - water emissions - hazardous material output	- # employee accident - # lost workdays - average work week hours - certifications - # supplier certified - observance of international labour standards - # safety improvement projects	- % of employees trained - # training programs/ hours - # of employees with incentives linked to environmental goals - # of functions with environmental responsibilities - management attention to environmental	- workforce diversity - # internal promotions - employee volunteer hours - average length of employment - employee satisfaction - # employee grievance - workforce equity

Source: Adaptation from Epstein and Wisner (2001)

Summarizing, the traditional Balanced Scorecard, as stated by Moller and Schaltegger (2005), allows companies to merge financial and non quantitative aspects and, for this reason, it is particularly suitable also in reference to sustainability: however, it does not separate and show clearly stakeholders interests, eco-efficiency, sustainability issues and their relative strategic implications. From this point of view, the Sustainability Balanced Scorecard could represent a tool particularly interesting.

3.2 Sustainability Reporting

Reporting sustainability has become a widespread tool during the last years, in particular since 1989, year of the first environmental reports, that this tendency has grown (Kolk, 2004). This tool represents, undoubtedly, the concrete projection of sustainability from a philosophical perspective to a more materialistic one: the role of this report within the more general Financial Statement is a topic of discussion among scholars (Castellani, 2011).

First of all, it is necessary to understand what is a sustainability report and, from this point of view, it can be useful to analyze a series of definitions, presented by scholars and organizations. The table 3 summarizes these definitions.

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Tab. 3: Definitions of Sustainability Report/Reporting

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Source	Definition
Global Reporting Initiative (2014)	"A sustainability report is a report published by a company or organization about the economic, environmental and social impacts caused by its everyday activities. A sustainability report also presents the organization's values and governance model, and demonstrates the link between its strategy and its commitment to a sustainable global economy" (https://www.globalreporting.org/information/sustainability-reporting/Pages/default.aspx (retrieved on 21st May 2014)
KPMG (2011)	"Sustainability reports – also called Corporate Social Responsibility (CSR), Environmental Social Governance (ESG) or Triple Bottom Line (TBL) report - that convey information about an organization's economic, environmental, and social impact are increasingly being issued in conjunction with financial reports - and stakeholders are using them more often when evaluating the long term viability of a company" (KPMG (2011), "Sustainability reporting- what you should know", available at http://www.kpmg.com/US/en/IssuesAndInsights/ArticlesPublications/Documents/iarcs-sustainability-reporting-what-you-should-know.pdf (consulted on 21st May 2014).
Shaltegger et al. (2006)	"The term sustainability reporting is usually used to refer to the publications of external reports, as either printed brochures or electronic versions on Internet. However, a main effect of sustainability reporting is the involvement of management and employees in setting sustainability goals for the corporation, collecting data, and creating and communicating sustainability information".
Kaptein (2007)	"A corporate social report is a means for companies to publicly account for their social, environmental, and economic performance over a fixed period. A growing number of companies publish an annual social report, also referred to as a public interest report, values report, integrated report, ethics report, integrity report, sustainability report or triple bottom line report."
Daub (2007)	"A report can be considered a sustainability report in the strictest sense of the term if it is public and tells the reader how the company is meeting the "corporate sustainability challenges"it must, in other words, contain qualitative and quantitative information on the extent to which the company has managed to improve its economic, environmental and social effectiveness and efficiency in the reporting period and integrate these aspects in a sustainability management system".
Szejnwald <i>et al.</i> (2009)	"Since the introduction of Ceres Principles in 1989, sustainability reporting has been the central instrument by which companies who adopt sustainability codes of conduct show accountability to the outside world".
Lozano and Huisingh (2011)	"SR is a voluntary activity with two general purposes: (1) to assess the current state of an organisation's economic, environmental and social dimensions, and (2) to communicate a company's efforts and Sustainability progress to their stakeholders. However, these purposes do not consider the time dimension, or the interactions among the different sustainability dimensions".

Source: Authors' own work

Analyzing these definitions, it is evident that a sustainability report has different purposes: first of all, it has a communicative function because it has to convey information, both quantitative and qualitative, to all stakeholders, facilitating the relationship; then, it has an integrating function, because it harmonizes the three dimensions of sustainability in an unique document; finally, it highlights the impact of a company on society, making the Corporate Social Responsibility emerge. It is important to note that there is not always a linguistic homogeneity in reference to this report's name: though it is diffusely called sustainability report, some companies use other denominations².

Some international organizations are working to define in a more precise way the features of a sustainability report, in order to draft a more complete document; for example 1) the Global Reporting Initiative, a non profit organization whose mission is to standardize and make them a widespread practice³; 2) the Institute for Social & Ethical Accountability, which created the International Standard AA1000, in order to develop an Account, Auditing and Reporting process in companies; 3) PWC, Ernst&Young, KPMG and Husen Mandag Morgen, which defined the document "The Copenhagen Charter, a Management Guide to Stakeholders Reporting"; in Italy important references are the projects Q-Res and CSR-CS and the model SEAN/Ibs (Pollifroni, 2007).

In summary, the scientific literature about sustainability and its measurement can be grouped in different research fields:

- study of the indicators to measure sustainability performances (highlighting which are the current parameters or proposing new units of measure);
- analysis of the benefits deriving from the application of sustainable policies, associating sustainability indicators with the economic and financial ones;
- study of sustainability tools (such as SBSC and sustainability report), in order to understand how their structure can be improved.

It is clear, from this literature review, that this research topic is in continuous evolution: in spite of this, it is clear that the sustainability choice rewards the responsible companies and, on the other hand, it is necessary to link environmental and social data with those relative to the strictly economic sphere, in order to underline that the development of a company cannot be measured only by monetary information.

4. The empirical study

4.1 Methodology

This research has been carried out applying a content analysis methodology, conducted through the use of the software TLAB,

- For example Ferrero entitles it "Corporate Social Responsibility Report", Esso "Corporate Citizenship Report"; Illy "Sustainable Value Report". In all these reports the three dimensions of sustainability are analyzed.
- Morhardt et al. (2002), anyway, underlines the gap existing between the indicators used in the world's largest companies' sustainability reports and those indicated by the Global Reporting Initiative.

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examining in particular the sustainability report of three industrial and service large companies. This methodology is particularly suitable to make inferences from a text, specifically it can be used for example to disclose differences in communication contents, to compare different levels of companies in Italy communication, to describe trends in communication content and to identify characteristics of the communicator (Weber, 1990). According to Berelson (1952), content analysis is a research technique suitable to analyse quantitatively and objectively the content of communication. Researchers have chosen this methodology in order to explore the content of some companies' sustainability report, in particular identifying what kind of indicators they use to measure their sustainable initiatives. For this purpose, every sustainability indicator has been examined, in order to understand the possible balance, especially between the environmental and the social dimensions. Once gathered these data, the authors have divided them on the basis of their affinity, considering the four SBSC dimensions.

The aim of this analysis is, essentially, to highlight which aspects of sustainability are more considered by this kind of companies, through a study of the sustainability indicators they use. On the basis of a ranking drafted by Mediobanca⁴, the leading investment bank in Italy, the authors have selected three enterprises which publish their sustainability report⁵: Eni (energy sector), Fiat (mechanical sector) and Barilla (food sector). Eni and Fiat have been chosen because they occupy the first two positions in this ranking, also in virtue of their turnover, which is the highest in Italy; Barilla⁶, instead, occupies the 32nd position but it is the first food company in the ranking to publish a sustainability report: it has been selected because of the importance of the food sector in the Italian economy⁷.

The research questions are:

- 1) What kind of sustainability indicators are used by the largest companies?
- 2) Is there a balance between the environmental and the social dimensions?

4.2 Findings

The analysis has highlighted that all these companies draft their sustainability reports following the GRI guidelines, which evidently represent a recognized standard. This information is fundamental because denotes that sustainability is investigated in all its dimensions, as illustrated by the GRI. In the tables 4, 5 and 6 the authors have summarized the most

- Mediobanca has a research unit, named Mediobanca Ricerche & Studi (MBRES) which publishes annually a series of studies concerning the world of companies. In this case, the authors have considered the industrial and service company ranking. Their studies are available at www.mbres.it.
- All the examined sustainability reports are dated from 2012 and 2013.
- The first food company in the ranking is Parmalat (23rd position) but it does not draft a sustainability report (www.parmalat.net).
- According to the data provided by ISTAT, during the period 2010-2013 the food sector has been the only one in the Italian economy to register a growth of turnover in the national market. Moreover, in the same Report, the food sector has been defined as one of the most significant of the Italian manufacture (Istat, Rapporto sulla competitività dei settori produttivi, 2014, available at http://www. istat.it/it/files/2014/02/Rapporto-Competitività-2014.pdf, last consultation on 25th February 2015).



important indicators used by those companies: they have been organized considering the four SBSC's dimensions.

The first analyzed company is Eni, which organizes its indicators considering the following areas: people, environment, local development, stakeholders, ethics and innovations.

Tab. 4: Some examples of indicators used by Eni

Financial		Cust	omer
Environmental	Social	Environmental	Social
- total amount invested in renewable energy - total environment protection expenditures and investments by type - waste management expenditures	- safety expenditures - health and hygiene expenditures - total spending for the territory	- type of product and service information required by procedures and percentage of significant products and services subject to such information requirements - volume of bio- fuels produced and purchased meeting sustainability criteria	- Eni customer satisfaction score
Internal Busii	ness Processes	Learning a	nd growth
Environmental	Social	Environmental	Social
- percentage and total volume of water recycled and reused - total direct and indirect greenhouse gas emissions by weight - total weight of waste by type and disposal -Iso 14001 certifications	- education, training counselling, prevention and risk control programs in place to assist workforce members regarding serious diseases - SA 8000 audits carried out		- percentage of employees per employee category according to gender, age group, minority group membership and other indicators of diversity - personnel employed in R&D activities

Source: Our elaboration from www.eni.it.

The most represented area is the environmental one: as a matter of fact there are 59 indicators upon the whole (144), even if there are also numerous indicators relative to the social dimension.

Fiat presents its indicators mainly following a stakeholder subdivision. Researchers have organized them as shown below in the table 5.

Tab. 5: Some examples of indicators used by Fiat

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Financial		Customer		
Environmental	Social	Environmental	Social	
- environmental protection expenditures and investments - financial implications, risks and opportunities for the organizations activities due to climate change	- training expenditures	- sustainable innovation on board - ecological performance of engines	- customer feedback	
Internal Busin	ness Processes	Learning and growth		
Environmental	Social	Environmental	Social	
- water recycling index - direct and indirect energy consumption - direct and indirect CO2 emissions - WASTE MANAGEMENT - Iso 14001 certifications - Iso 50001 certifications - application of LCA	- workers with high incidence or high risk of diseases related to their occupation - Workforce represented in health and safety committees	- hours of environmental training	- Employees receiving regular performance and career development reviews - diversity and equal opportunities - ratio of basic salary and remuneration of women to men - training per employee	

Source: Our elaboration from www.fcagroup.com.

The case of Barilla is more particular because this company considers also indicators relative to food issues.

Tab. 6: Some examples of indicators used by Barilla

Financial		Customer		
Environmental	Social	Environmental	Social	
- environmental safety and fire prevention investments - environmental expenses by type	- investments for safety - % weight of the cost of the people care activities on labour cost	- percentage of packaging made from recycled material - communication through packs	- number of product reformulated to improve their nutritional profile - products that have benefited from a significant reduction of total and/or saturated fat - percentage of products displaying indications for a healthy lifestyle	
Internal Busin	Internal Business Processes		Learning and growth	
Environmental	Social	Environmental	Social	
- ecological footprint - percentage of studies covered by LCA studies - percentage of recyclable packaging issued onto the market - percentage of plants Iso 14001 certified	- accident frequency index - extension of OHSAS 180001 to plants		- women per category - percentage of employees involved in training activities - healthy and safety training	

Source: Our elaboration from www.buonopertebuonoperilpianeta.it.



5. Discussion

The analysis has given light to a substantial standardization in the compilation of these reports. Comparing them, a balance among the various indicators emerges, as well as a general homogeneity in the choice of indicators (with the necessary adaptation to their specific sector), as a consequence of the adoption of GRI standards. In summary, once these companies draft their report have been observed, a general framework of indicators can be realized intersecting the different typologies of stakeholders with the social and environmental dimensions.

Tab. 7: Sustainability indicators and stakeholders

Community	Business Partners	Employees	Customers
Materials	Suppliers environmental assessment	Decent Labour conditions	Customer Health and safety
Water	Supply Chain standards (human rights and labour conditions; impact on society across the Supply Chain)	Human Rights (child labour, non- discrimination)	Transparency
Energy		Freedom of association	
Waste		Security practices	
Biodiversity		Training/education	
Human rights		Equal opportunities	
Local Communities and Indigenous rights			
Impact on society assessment			

Source: Authors' own work

From the stakeholders' point of view, a deep attention has been given to community. As a matter of fact a lot of indicators are related to the impact of the company's activity on environment (emissions, waste management, natural resources consumption) while there are less references to customers. Moreover, the combination between report indicators and the SBSC perspectives has confirmed the minor quantity of measurement indices for customers.

The development of a framework inspired by the BSC scheme could be very useful to have a more immediate description of sustainability. From this point of view, a framework based on stakeholders (those presented in the Table 7 LA CITAZIONE SI RIFERISCE ALLA TAB. 7 O ALLA TAB. 8??? SE IL RIFERIMENTO RIGUARDA LA TAB. 7 MANCA IL RIFERIMENO ALLA TAB. 8), rather than on the perspectives, studied

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Tab. 8: A proposal of framework

Community		Customer	
Environmental	Social	Environmental	Social
Reporting data, targets and objectives from the environmental point of view relative both to financial and non financial sphere. The focus is on the consequences of the company's activity on community (natural resources consumption, investments and costs for the environment)	Reporting data, targets and objectives from the social point of view relative both to financial and non financial sphere. The focus is on the consequences of the company's activity on community (human rights, respect for local communities)	Reporting data, targets and objectives from the environmental point of view relative both to financial and non financial sphere. The focus is on customers (communication, green products)	Reporting data, targets and objectives from the social point of view relative both to financial and non financial sphere. The focus is on customers (customer feedback)
Business	Processes	Employees	
Environmental	Social	Environmental	Social
Reporting data, targets and objectives from the environmental point of view relative both to financial and non financial sphere. The focus is on business partners (suppliers' environmental assessment, possession of Iso 14001 certification)	Reporting data, targets and objectives from the social point of view relative both to financial and non financial sphere. The focus is on business partners (respect of ethical standards in supply chain, possession of Sa8000 certification)	Reporting data, targets and objectives from the environmental point of view relative both to financial and non financial sphere. The focus is on employees (environmental training for employees)	Reporting data, targets and objectives from the social point of view relative both to financial and non financial sphere. The focus is on employees (equal opportunities, training)

Source: Authors' own work

Undoubtedly, findings of this research highlight that an integration among economic, social and environmental sustainability exists and the largest companies communicate their initiatives paying attention both to the environmental and the social side: as also stated by Lodhia and Martin (2014), in a study focused on Corporate Sustainability, however, indicators have to be read together with other sustainability information because of the possibility to be interpreted by different stakeholders, in different context. The proposal of a framework is inspired by this need: Perrini and Tencati (2006) underline that a sustainable approach, defined as the capacity of continuing to operate in a long period of time, is possible only if the relationships with stakeholders are sustainable. This framework has the aim to highlight the relationship between sustainability and the stakeholder approach: it is essential to link environmental and social data and objectives

to different stakeholders.

Quantifying the sustainability activities is a necessary process, considering its benefits, as observed by Adams and Zutshi (2004): these scholars state that accounting them signifies improvements in terms of cost savings, corporate image, relationship with stakeholders, and retention of employees, all essential to guarantee a long-term survival for a company. However, the accounting activity should be more linked to assets and liabilities, so all the sustainability indicators could be used to build an integrated balance sheet which should highlight the positive or negative environmental/social conduct as a decisive element to value the economic status of a company.

Another reflection can be made in connection to the necessity of quantifying sustainability considering also its relevance in a macroeconomic perspective. For example, the Gross Domestic Product (GDP) is a limited tool because it does not measure the impact of the production activities on people and on environment (Lawn, 2003) so it cannot be considered a complete index to summarize the well-being of a country. From this point of view there is another index, which integrates the GPD with elements more oriented to a sustainable development: this is the Index of Sustainable Economic Welfare (ISEW), proposed by Daly and Cobb (1989). Beça and Santos (2014) has shown, for example, a slower growth in two countries (Portugal and United States) calculating it through the ISEW rather than the GDP. This demonstrates, once again, that it is fundamental to also consider factors relative to sustainability to evaluate the economic situation.

Measuring sustainability, therefore, becomes a necessity.

6. Conclusion and limits

This study has shown that research about sustainability performance evaluation is in progress, and this means that quantitative tools could be improved. The relevance of sustainability nowadays is an indisputable fact and its achievement cannot be postponed. It is clear that it should involve all the business departments, from production to marketing, from logistics to research and development, in order to make the whole of business activity a sustainable activity. Evaluating the impact on society means giving depth to this matter not only from a philosophical point of view but also from an economic one. Future research should deepen this aspect, trying to insert sustainability data as balance sheet items and, moreover, it should explore the way to integrate information relative to environmental and social responsibility in a more complete index which will measure the real national wealth. The extreme disparity, present in some countries such as those of the Far East, and the poor attention to the safeguard of the environment by the West, should represent a cause for reflection on the unsuitableness of some economic parameters to evaluate the real affluence of a country: from this point of view, it is evident that sustainability indicators should be improved in order to be considered fundamental parameters both in a microeconomic and a macroeconomic

perspective.

This research has some limits. First of all, this is an explorative study, which has analyzed empirically only two sustainability quantitative tools that are SBSC and the sustainability report. Moreover, the sample includes companies in Italy only the largest companies so the analysis reflects the quantitative approach to sustainability of companies which follow the GRI guidelines to report sustainability indicators.

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References

- ADAMS C., ZUTSHI A. (2004), "Corporate Social Responsibility: why business should act responsibly and accountable", Australian Accounting Review, vol. 14, n. 34, pp. 31-39.
- ALBERTI F., BUBBIO A. (2000), "La «Balanced Scorecard»: alcune esperienze a confronto", Amministrazione e Finanza Oro, n. 1, pp. 64-86.
- ARTIACH T., DARREN L., NELSON D., WALKER J. (2010), "The determinants of corporate sustainability performance", Accounting and Finance, vol. 50, n. 1, pp. 31-51.
- BALDASSARRE F. (2006), "Le prospettive della Balanced Scorecard", in Scicutella M., La gestione d'impresa, Cacucci, Bari.
- BERELSON B. (1952), Content Analysis in Communication Research, The Free Press, Glencoe.
- BEÇA P., SANTOS R. (2014), "A comparison between GDP and ISEW in decoupling analysis", Ecological Indicators, vol. 46, November 2014, pp. 167-176.
- BOWEN H.R. (1953), Social responsibilities of the businessman, Harper & Row, New York.
- CARROLL A. (1979), "A three-dimensional conceptual model of corporate performance", Academy of Management Review, vol. 4, n. 4, pp. 497-505.
- CASTELLANI G. (2011), Responsabilità sociale d'impresa e bilancio di sostenibilità, Maggioli Edfitore, Santarcangelo di Romagna - RN.
- CRANE A., MCWILLIAMS A., MATTEN D., MOON J., SIEGEL D.S. (2008), The Oxford Handbook of Corporate Social Responsibility, Oxford University Press, Oxford.
- DALY H., COBB J. (1989), For the Common Good, Beacon Press, Boston.
- DAUB C.H. (2007), "Assessing the quality of sustainability reporting: an alternative methodological approach", Journal of Cleaner Production, vol. 15, n. 1, pp. 75-85.
- DAHLSRUD A. (2006), "How Corporate Social Responsibility is defined: an analysis of 37 definitions", Corporate Social Responsibility and Environmental Management, vol. 15, n. 1, pp. 1-13.
- DIAS SARDINHA I., REIJNDERS L. (2001), "Environmental performance evaluation and sustainability performance evaluation of organizations: an evolutionary framework", Eco-Management and Auditing, vol. 8, n. 2, pp.71-79.
- DIAS SARDINHA I., REIJNDERS L., ANTUNES P. (2007), "Developing Sustainability Balanced Scorecards for Environmental Services: A Study of Three Large Portuguese Companies", Environmental Quality Management, vol. 16, n. 4, pp. 13-34.

- DYLLICK T., HOCKERTS K. (2002), "Beyond the business case for corporate sustainability", *Business Strategy and the Environment*, vol. 11, n. 2, pp. 130-141.
- EPSTEIN E.M. (1987), "The corporate social policy process: beyond business ethics, corporate social responsibility and corporate social responsiveness", *California Management Review*, vol. 29, n. 3, pp. 99-114.
- EPSTEIN M.J., ROY M. (2001), "Sustainability in action: identifying and measuring the key performance drivers", *Long Range Planning*, vol. 34, n. 5, pp. 585-604.
- EPSTEIN M.J., WISNER P.S. (2001), "Using a Balanced Scorecard to Implement Sustainability", *Environmental Quality Management*, vol. 11, n. 2, pp. 1-10.
- FIGGE F., HAHN T., SHALTEGGER S., WAGNER M. (2002), "The sustainability Balanced Scorecard linking sustainability management to business strategy", *Business Strategy and the Environment*, vol. 11, n. 5, pp. 269-284.
- FREEMAN R.E. (1984), Strategic Management: A stakeholder approach, Pitman, London.
- FREEMAN R.E., VELAMURI S.R., MORIARTY B. (2006), "Company Stakeholder Responsibility: a new approach to CSR", available at http://www.corporate-ethics.org/pdf/csr.pdf.
- GARRIGA E., MELÈ D. (2004), "Corporate Social Responsibility Theories: Mapping the Territory", *Journal of Business Ethics*, vol. 53, n. 1-2, pp. 51-71.
- GLADWIN T.N., KENNELLY J.J., KRAUSE T. (1999), "Shifting paradigms for sustainable development: implications for management theory and research", *Academy of management Review*, vol. 20, n. 4, pp. 874-907.
- GILBERT D.U., RASCHE A. (2007), "Discourse ethics and social accountability: The ethics of SA 8000", *Business Ethics Quarterly*, vol. 17, n. 2, pp. 187-216.
- HART S.L., AHUJA G. (1996), "Does it pay to be green? An empirical examination of the relationship between emission reduction and firm performance", *Business Strategy and the Environment*, vol. 5, n. 1, pp. 30-37.
- INTERNATIONAL ORGANIZATION FOR STANDARDIZATION (2013), ISO 14031: Environmental management. Environmental performance evaluation, Guidelines.
- JAGGI B., FREEDAMAN M. (1992), "An examination of the impact of pollution performance on economic and market performance: pulp and paper firms", *Journal of Business and Finance and Accounting*, vol. 19, n. 5, pp. 697-713.
- JASCH C. (2000), "Environmental performance evaluation and indicators", *Journal of Cleaner Production*, vol. 8, n. 1, pp.79-88.
- JOHNSTON P., EVERARD M., SANTILLO D., ROBERT K.H. (2007), "Reclaiming the Definition of Sustainability", *Environmental Science and Pollution Research*, vol. 14, n. 1, pp. 60-66.
- KAPLAN R.S., NORTON D.P. (1992), "The Balanced Scorecard Measures that drive performance", *Harvard Business Review*, vol. 70, n. 1, pp. 71-79.
- KAPTEIN M.(2007), "Ethical guidelines for compiling corporate social reports", *Journal of Corporate Citizenship*, vol. 27 (October), pp. 71-90.
- KOLK A. (2004), "A decade of sustainability reporting: developments and significance", *International Journal of Environmental and Sustainable Development*, vol. 3, n. 1, pp. 51-64.

LAUFER W.S. (2003), "Social Accountability and Corporate Greenwashing", *Journal Raffaele Campo*of Business Ethics, vol. 43, n. 3, pp. 253-261.

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- LAWN P.A. (2003), "A theoretical foundation to support the Index of Sustainable Economic Welfare (ISEW), Genuine Progress Indicator (GPI), and other related indexes", *Ecological Economics*, vol. 44, n. 1, pp. 105-118.
- LEE K.-H., FARZIPOOR SAEN R. (2012), "Measuring corporate sustainability management: A data envelopment analysis approach", *International Journal of Production Economics*, vol. 140, n. 1, pp. 219-226.
- LINDGREEN A., SWAEN V. (2010), "Corporate Social Responsibility", International Journal of Management Reviews, vol. 12, n. 1, pp. 1-7.
- LODHIA S., MARTIN N. (2014), "Corporate Sustainability Indicators: an Australian mining case study", *Journal of Cleaner Production*, in press, available on www.sciencedirect.com.
- LOZANO R., HUISINGH D. (2011), "Inter-linking issues and dimensions in sustainability reporting", *Journal of Cleaner Production*, vol. 19, n. 2-3, pp. 99-107.
- MCGUIRE J.B., SUNDGREN A., SCHNEEWEIS T. (1998), "Corporate social responsibility and firm financial performance", *Academy of Management Journal*, vol. 31, n. 4, pp. 854-872.
- MOLLER A., SCHALTEGGER S. (2005), "The Sustainability Balanced Scorecard as a Framework for Eco-efficiency Analysis", *Journal of Industrial Ecology*, vol. 9, n. 4, pp. 73-83.
- MORHARDT J.E., BAIRD S., FREEMAN K. (2002), "Scoring corporate environmental and sustainability reports using GRI 2000, ISO 14031 and other criteria", *Corporate Social Responsibility and Environmental Management*, vol. 9, n. 4, pp. 215-233.
- MOSCARINI F. (2009), "Lo sviluppo degli studi sulla Corporate Social Responsibility nella dottrina internazionale", *Rivista Italiana di Ragioneria e di Economia Aziendale*, Marzo-Aprile.
- NIKOLAOU I.E., TSALIS T.A. (2013), "Development of a sustainable balanced scorecard framework", *Ecological Indicators*, vol. 34 (November), pp. 76-86.
- PERRINI F., TENCATI A. (2006), "Sustainability and stakeholder management: the need for new corporate performance evaluation and reporting systems", *Business Strategy and the Environment*, vol. 15, n. 5, pp. 296-308.
- PERRINI F., TENCATI A. (2008), "La responsabilità sociale d'impresa: strategia per l'impresa relazionale e innovazione per la sostenibilità", *Sinergie*, n. 77, pp. 23-43.
- POLLIFRONI M. (2007), Public sector social responsibility. Strumenti di rendicontazione etico-sociale per l'azienda pubblica, Giuffrè Editore, Milano.
- RUSCONI G. (2006), Il bilancio sociale. Economia, etica e responsabilità dell'impresa, Ediesse, Roma.
- RUSSO M.V., FOUTS P.A. (1997), "A resource based perspective on corporate environmental performance and profitability", *Academy of Management Journal*, vol. 40, n. 3, pp. 534-559.
- SALZMANN O., IONESCU-SOMERS A., STEGER U. (2005), "The Business Case for Corporate Sustainability: Literature Review and Research Options", *European Management Journal*, vol. 23, n. 1, pp. 27-36.
- SCIARELLI M. (2012), Corporate Social Performance. Il valore allargato nella prospettiva degli stakeholder, Cedam, Padova.



SEN A. (1987), On Ethics and Economics, Blackwell, Malden.

SEN A. (1993), "Does Business Ethics Make Economic Sense?", *Business Ethics Quarterly*, vol. 3, n. 1, pp. 45-54.

SEN A. (1997), "Economics, Business Principles and Moral Sentiments", *Business Ethics Quarterly*, vol. 7, n. 3, pp. 5-15.

SETHI S.P. (1975), "Dimensions of Corporate Social Performance: An Analytical Framework", *California Management Review*, vol. 17, n. 3. pp. 58-64.

SHALTEGGER S., BENNETT M., BURRITT R. (2006), Sustainability Accounting and Reporting, Springer, Dodrecht.

SIANO A. (2012), "La comunicazione della sostenibilità per il management delle imprese", *Sinergie*, n. 89, pp. 3-23.

SZEJNWALD BROWN H., DE JONG M., LEVY D.L. (2009), "Building institutions based on information disclosure: lessons from GRI's sustainability reporting", *Journal of Cleaner Production*, vol. 17, n. 6, pp. 571-580.

VAN MARREWIJK M. (2003), "Concepts and definitions of CSR and corporate sustainability: between agency and communion", *Journal of Business Ethics*, vol. 44, n. 2, pp. 95-105.

WARTICK S.L., COCHRAN P.L. (1985), "The evolution of the Corporate Social Performance model", *The Academy of Management Review*, vol. 10, n.4, pp. 758-769.

WEBER R.P. (1990), Basic Content Analysis, Sage, Newbury Park.

WOOD D.J. (1991), "Corporate Social Performance revisited", *The Academy of Management Review*, vol. 16, n. 4, pp. 691-718.

Websites

http://ec.europa.eu
http://www.buonopertebuonoperilpianeta.it
http://www.eni.com
http://www.fcagroup.com
https://www.globalreporting.org
http://www.istat.it
http://www.kpmg.com
http://www.mbres.it/
http://www.parmalat.net

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