



# **THE 13<sup>th</sup> INTERNATIONAL CONFERENCE OF THE SOCIETY FOR GLOBAL BUSINESS & ECONOMIC DEVELOPMENT**

**Managing the “Intangibles”: Business and Entrepreneurship  
Perspectives in a Global Context**

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Università Politecnica delle Marche | Ancona, Italy

July 16 | 18 2014

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by

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## **Sustainability and SMEs: the case of CSR4UTOOL web application**

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## Sustainability and SMEs: the case of CSR4UTOOL web application

### Abstract

Several business administration scholars recognized the presence of ethical roots at the base of the actual crisis both in large and small companies. In addition, Small and Medium-sized enterprises (SMEs) positively represent the backbone of the European economic system and, negatively, they represent the 64% of all European environmental pollution, generated by an unethical conduct (Eurobarometer, 2012).

The purpose of this paper is to understand and explain if SMEs are able to change their management practices with more sustainable practices using a self-assessment and learning tool. A literature analysis of how SMEs address sustainability issues will be discussed especially, the need of tools for SMEs. The focus of the paper relies on the presentation of an experimental and innovative web-based tool for interactive assessment of CSR for small entrepreneurs, called CSR4UTOOL. The theoretical model at the base of the algorithm is the Carroll's Pyramid of Responsibilities (1979).

### Introduction

There are 23 million small and medium-sized enterprises (SMEs following the European definition) in the European Union, representing 99% of all businesses and providing around 90 million jobs in the single market. SMEs contribute to the European economy generating the 57.6% of the entire value added and, in that sense, they are considered the backbone of the European economic system. This means that the contribution given by small entrepreneurs is essential for pursuing the goals of "Europe 2020," that is the EU's strategy for a smart, sustainable and inclusive growth of Member States (Eurobarometer, 2012). Despite the term "small", Morsing and Perrini (2009) noted 'that the "smallness" of the individual SME is not proportional to the collective "grandness" of SMEs as a whole. As a matter of fact, at the same time, SMEs are responsible for roughly 64% of the total European industrial pollution because of the existent difficulties in complying with environmental legislation and, in the meanwhile, 24% of them actively engage in actions to reduce their environmental impact, mainly the reduction of energy consumption and the adoption of environmental management systems (Eurobarometer, 2012). In addition, other data on social impacts of SMEs are impressive. For instance, according to a research of Link Lab 2014, the number of Italians that committed suicide for a motivation linked to economic reasons has grown up of +70% in relation to 2012 (149 people in 2013 and 89 in 2012). The most impressive data is that nearly half part of these people were small and medium-sized entrepreneurs and they have committed suicide declaring a reason related to the economic crisis.

In order to boost the economic competitiveness of SMEs, the European Commission has implemented an action plan namely "Small Business Act – Think Small First" (SEC/2008/2101) which aims to put the needs of the SMEs at the heart of European policy. The Small Business Act provides ten specific principles and line of actions as: environment which rewards enterprise; second chance for honest entrepreneurs who face bankruptcy; the design rules according to 'think small first'; public administration response to SME needs; adapt public policy and tenders to SME needs; access to finance by SMEs; opportunities from the single market; skills and innovation; turn entrepreneurial challenges into opportunities; benefit from the growth in markets.

Moreover, in 2011, the European Commission have stressed the important role of SMEs also for the sustainable development of Europe. In particular, into the document called "A renewed EU strategy 2011-14 for Corporate Social Responsibility", it is stated that, CSR is "*the responsibility of enterprises for their impacts on society*" and this logic implies to foster the adoption of processes to integrate social, environmental, ethical, human rights and consumer concerns into business operations. The principal element of innovation relies on the introduction of a strategic view of CSR in close collaboration with their stakeholders, with the aim of: (i) maximizing the creation of shared value for their owners/shareholders and for their other stakeholders and society at large; and (ii) identifying, preventing and mitigating their possible adverse impacts. The document addresses



several crucial issues that SMEs face in applying sustainability practices as: their limited resources; the pressure exerted by the presence of administrative burdens; the role and importance of intermediary organizations; and, the tendency of communicating social and environmental information informally and on a voluntary basis.

Recently in April 2014, the European Parliament has promulgated a directive (Communication 78/660/EEC and 83/349/EEC) that will be successively approved in September 2014, which impose communication of social and environmental information duties to large companies and listed group. Following these communications, SMEs are not directly involved but, indirectly, if a large company or a listed group will be called to comply or explain data i.e. on their supply chain, then, they need tool to collect and manage these data. Several ICT technologies are burgeoning, but the main limit of these technologies, that is also the limit of the general CSR approach, is that they have been created for large companies (Tilley, 2000). In the near future, small entrepreneurs that work in the B2B could receive auditor on sustainability issues by their “main customers” that imply to provide a pursuit in providing the information requested.

In the last decade, academia and scholars have started to discover and demonstrate the peculiarities of SMEs that act in a social and responsible manner and, for that reason, the paper starts with a revision of the state of the art of the literature. A literature analysis of how SMEs address sustainability issues will be discussed, especially, the need of tools for SMEs. The purpose of this paper is to understand and explain if SMEs are able to change their management practices with more sustainable practices using a self-assessment and learning tool. The focus of the paper relies on the presentation of an experimental and innovative web-based tool for interactive assessment of CSR for small entrepreneurs, called CSR4UTOOL. The novelty of the web-based tool is the effort of moving away by the mere collection of data, experiencing the user/entrepreneurs into a self-evaluation, and understanding the motivations behind the actions. The paper is classified as a demonstration paper, as the aim is to show the technology prototype that relies on the Carroll’s Pyramid of Responsibilities (1979). In future, entrepreneurs, researchers, practitioners, politicians, large companies and banking sectors will benefit of the results deriving from a massive experiment and diffusion of this technology.

## **An overview of the studies on sustainable SMEs**

### **The particularity of SMEs in approaching sustainability issues**

Scagnelli et al. (2013) have given special attention to SMEs cognizant of their sustainability impact. In general, SMEs have relatively informal organizational structures, often managed by owners or family members. This implies that there is a close correlation between the head of the company, his/her way of manage the business, his/her personal choices, attitudes and moral values (Petts et al., 1999; Surbutts, 2003; Grayson, 2004; Longo et al, 2005; Longenecker et al., 2006; Vives, 2006; Worthington et al., 2006; Jamali et al., 2008; Lange and Fenwick, 2008; Redmond et al., 2008; Hamman et al., 2009; Moore et al., 2009; Nielsen and Thomsen, 2009; Fassin et al., 2011; Schlierer et al., 2012).

The proximity between the owner-manager and his employees relies on personal relation, that are often fluid and informal (Cabra-Fierro et al., 2008; Hamman et al., 2009; Russo and Tencati, 2009; Fassin et al., 2010; Fenwick, 2010; Rivera-Lirio and Muñoz-Torres, 2010; Russo and Perrini, 2010; Cassells and Lewis, 2011). These relationships, built out of intangible components as trust, reputation and legitimacy, represent the lifeblood of an SME and, in the meantime a constraint (Spence, 1999; Graafland et al. 2003; Spence et al., 2004; Courrent and Gundolf, 2009; Revell et al., 2010). Davies and Crane (2010) provide a descriptive theory of how SMEs implement CSR in their business, and they state that one of most used approach is dealing CSR issue through Human Resources management practices. Undoubtedly, the “proximity” is also at the firm-local community level, and therefore, it implies to be involved in community affairs (Longo et al., 2005; Fuller and Tian, 2006; Lawrence et al., 2006; Perrini, 2006; Williamson et al., 2006; Niehm et al., 2008; Fisher et al., 2009; Muller and Kolk, 2009; Russo and Tencati, 2009; Russo and Perrini, 2010; Del Baldo, 2010; Fassin et al., 2011).

Obviously, SMEs face the competitive pressure exerted by the economic environment answering with limited resource, in terms of cash flow, knowledge and human resources. These motivations attenuate the attitude of small entrepreneurs towards investing time and resources on sustainability. Usually disaffected entrepreneurs

tend to perceive CSR as a business cost without benefit and they concentrate their attention on short-term strategic planning (Spence and Rutherford, 2001, 2003; Lepoutre and Heene, 2006; Roberts et al., 2006; Avram and Kuhne, 2008; Chiappetta Jabbour and Puppim-de-Oliveira, 2012). Managers—owners justify social and environmental investment only if there is an economic and competitive feedback deriving from a customer or a project/business (Deniz and Suarez, 2005; Jorgensen and Knudsen, 2006; Williamson et al., 2006; Brammer et al., 2012; Torugs et al., 2012).

On the cognitive level, it has to be noted that SMEs often misunderstand the meaning of ethical terms like CSR, sustainability reporting, code of conduct and ethical codes and they perceive them as distant, possibly inoperative or counter-productive (Grayson, 2004; Murillo and Lozano, 2006; Fassin, 2008; Rivera-Lirio and Muñoz-Torres, 2010; Baden and Harwood, 2012). On the other side, they prefer a sunken, internal and proactive approach because it stems from voluntary involvement (Matten and Moon, 2004; Fuller and Tian, 2006; Jenkins 2004, 2006, 2009; Lynch-Wood et al., 2009; Del Baldo, 2010).

On the terminological level, Ahmad and Seet (2009) demonstrated that CSR is perceived as honesty, integrity and willingness to admit mistakes and to tell the truth; while Petts et al. (1999) and Fassin (2008) refers to doing the right things; Surbutts (2003) employ the concept of ability to say sorry. Courrent and Gundolf (2009) report that “ethics” has been viewed as a management tool for managing corporate reputation and image. Therefore, Baden and Harwood (2012) provide a discussion on the ambiguity of the term CSR especially in the view of an SME. They stress a need for a better choice of words and suggestions including a focus on the totality of responsible business practice that means to focus on the use of action verbs that reflect the nature of the engagement with the community and environment. This, it is also confirmed by the study of Fenwick (2010) on the CSR in everyday practices and actions. On the contrary, Deniz and Suarez (2005) analysis confirm that some SMEs associate at the term CSR the concept of philanthropic activity. Graafland et al. (2003) refer to expectation and responsiveness towards stakeholders.

Several studies have demonstrated that SMEs adopt different behavior in addressing sustainability. Some of small entrepreneurs believe that they have an inexistent or little impact on the environment (Gadenne et al., 2009); while other tend to adopt a chameleon approach that Unioncamere (2003) classifies as: cohesive, multi-certificate, aware, skeptical and movable. A new body of literature is growing on the issue of CSR within the supply chain, especially in relation to SME behaviour (Jorgensen and Knudsen, 2006; Roberts et al., 2006; Perrini et al., 2008; Baden et al., 2009; Gadenne et al., 2009; Muller and Kolk, 2009; Baden et al., 2011). Moreover, scholars are beginning to study the phenomenon of business networks as a driver for the diffusion of CSR within SMEs (Spence et al., 2003; Moore and Manring, 2009; Battaglia et al, 2010; Fenwick, 2010; Hoivik and Shankar, 2011; Jamsa et al., 2011).

#### **SMEs, social accounting and disclosure**

The adoption of sustainability practices leads managers to observe economic, social and environmental performance as an equilibrium of three inter-connected dimensions (Guthrie and Parker, 1989; Gray, et al., 1995, 1996; Adams, 1999). Scholars agree on the fact that social and environmental accounting practices is not a fertile terrain for SMEs as there is general lack of information on their social responsibility actions (Spence et al., 2003; Lawrence et al., 2006; Lepoutre and Heene, 2006; Parsa and Kouhy, 2007; Fisher et al., 2009; Nielsen and Thomsen, 2009; Fitjar, 2011). An extensive lack of technical knowledge, awareness of benefits and, most of all, high cost of implementation explain why SMEs does not provide a systematic social account Hillary (2000).

While the provision of CSR tools and social reporting guidelines is burgeoning rapidly, there is a general lack of tools dedicated to SMEs that want to adopt CSR disclosure account (i.e. social, environmental or sustainability reports) (Catska et al., 2004; Russo and Perrini, 2010). Enderle (2004) points out that, overall, CSR reporting standards might be inappropriate for small firms because such standards have been developed mainly with large businesses in mind. Besides, from the SMEs perspective, the possible ineffectiveness of informal tools such as codes of conduct and social and ethical standards might be explained by the requirement of a greater investment in terms of time, funds and energy. Furthermore, much more study and work is needed in order to develop appropriate ethical tools capable of connecting new theories to small businesses practice (Tilley, 2000). In general, Baden et al. (2011) which a ‘downstream’ corporate social responsibility activity into the views and actions of SME owner-managers.

Conversely, Parsa and Kouhy (2007) investigate the prevalent view that SMEs are unlikely to report social information due to their financial constraints and the perception that they have very little social conduct on which to

report. On the contrary, they show that SMEs report social information regardless of their financial constraints. For small companies a good reputation is crucial in attracting resource holders and fulfilling their expectations (Sabate and Puente, 2003).

### **Towards a theory of CSR in SMEs**

While Garriga e Melè (2004) have provided a deepen debate on the existent theories that compose the CSR field of study, Spence and Perrini (2010) invoke the need of an emerging complex of theory, tools and mechanisms to contextualize small entrepreneurs' social responsibilities. Exemplifying a bit, Epstein (2007) describes a socially responsible firm those firms in which the usefulness of the firm itself is optimized to the diverse stakeholders and, in the meantime, the possible deleterious effects are minimized. That is to say, the behavior that trying to achieve financial results minimizing negative spillovers and maximizing positive externalities to the environment and society.

Under these lenses, the CSR approach can be represented as a continuum starting from a compliance behavior (reactivism) to ethical and moral commitment that leads to voluntary actions (proactivism). Some authors interpret the small businesses social responsibility as a relatively reactive approach (Uhlener et al., 2004; Ahmad and Seet, 2009; Lepoutre and Heene, 2006; Udayasankar, 2008). Reactivity means the attitude of a small entrepreneur to improve his social behavior under external pressure like external expectation from stakeholders (including public policies) and increasing competition (Uhlener et al., 2004; Williamson et al., 2006; Fitjar, 2011). Other authors explain the interpretation of social responsibilities as social priority, long-term survival factor and the "wanting to give back" to community less than profit oriented motivation (Spence and Rutherford, 2001, 2003). The importance of adopting pragmatic actions is also underlined by Schlierer et al. (2012), including the institutional structure of the national economy but also wider cultural norms and habits regarding economic activity. Cambra-Fierro et al. (2008) found that the behavior of SMEs involved in environmental CSR is expressed as several actions: complying with the reference legislation, adapting the management to the owner and / or managers' value system, and trying to make a profit with the effort. Lozano (2012) gives an in-depth analysis of the voluntary initiative contribution towards CSR, but often SMEs tend to adapt the tools developed for large enterprise to their own needs, even if "SMEs are not little big firms" (Tilley, 2000).

Among these tools are Social and Environmental Management System (SEMS) certifications. SEMS and the related certifications have also been very successful in the SME framework, as demonstrated by (Bouma and Kamp-Roelands, 2000; Jirillo et al., 2003; Miles and Munilla, 2004; Catska, 2004; Catska and Balzarova, 2008a and 2008b; Llach et al., 2013). Recently, Bürgi (2010) has affirmed that among SMEs, the adoption of SEMS is continuously growing as a formal request of a customer and, this adoption influences the approach towards sustainability as demonstrated also by Fatoki and Chilya (2012) and, empirically by Uhlener et al. (2012). Bürgi (2010), in Spence and Painter-Morland (2010) presents a theoretical model that we can label holistic or liquid approach of CSR in SMEs that unify SEMS, moral value and small business. Even though, they states that there are not enough research in business ethics, regarding SMEs, despite the fact that there are differences between large firms and small and medium size firms beyond the number of employees (Spence and Painter-Morland, 2010; Bürgi, 2010). In general, the greater part of the studies on CSR in SMEs have been conducted under the business ethics approach, even though these theoretical models have been developed starting from large companies' perspectives.

### **The methodology**

In order to offer at the reader a perspective of the new technology, it occurs to premise and briefly summarize those relevant insights that have inspired it. Following Spence and Perrini (2010), several elements are important in small entrepreneurial context that deals with sustainability issues:

- There is a generalized lack of codification of CSR actions;
- The role played by small entrepreneurs' personal moral values are fundamental;
- Who conduct or manage is the principal and also the agent of the firm itself;
- SMEs are often involved into project carried out by the community;
- Flexibility and reputation are considered as a source of competitive advantage;

- Human resources are a privileged stakeholder;
- Exogenous factors like business sector, belonging to a group or network of firms influence the corporate behavior.

In addition, Spence and Perrini (2010) have invoked the need of new tools for boost CSR in SMEs and the tool that will be presented wants to offer a practical answer to that need.

#### **The rationale**

CSR4UTOOL ([www.csr4utool.org](http://www.csr4utool.org)) is a web-based application especially dedicated to the interactive self-assessment of CSR performances in SMEs. CSR4UTOOL has been developed during the European project LOIEs (Lessons and Options for an Integrated European approach to CSR) financed by the DG Occupation, Social Affair and Inclusion.

LOIEs was an experimental European project which aims to stimulate dialogue between profit and nonprofit organizations as leverage to identify and test new models of collaboration and interactions in applying CSR concepts. LOIEs involved six companies in twinning and three public institutions in three EU countries (Bulgaria, Italy, Spain), identifying some methods of interaction more effective and efficient in terms of social and managerial value. Synthetizing a bit, in LOIEs several different tools was created and tested, among which a checklist of item on CSR issues was created. This checklist was based on ISO26000 core concepts, around 50 items and the answers followed a Likert-type of scale. The scope of the checklist was to provide a self-assessment on CSR issues at those firms involved in the project and suddenly the checklist was formally included in the official manual of the project. After the administration of the test, several problems aroused: (i) the test required a consultant in order to explain the specific terms used to explain sustainability issues; (ii) the test required time and human resources in order to retrieve the information and give the desired answer; (iii) the results was infected by a high percentage of social desirability bias.

On this base, CSR4UTOOL has been developed in order to be:

- Not structured as a survey;
- Free of charges, anonymous and completely available in any time on any devices, enabling the information retrieval without a loss of data;
- Used with or without the help of a consultant;
- Developed as a service, at the end of the test the system provides a conclusive report to the user that contains scores and benchmarking on specific sectors;
- Used to compare the CSR performances of a firm into different strategic area of interest;
- Easy to understand providing example of actions, verbs, situations, and most of all, a clear language and an in-time translation;
- Used as a self-evaluation and/or learning tool and for edit a preliminary sustainability report.

The users of CSR4UTOOL is typically the owner or the CEO of the SMEs, also a member of the administrative staff can use the tool, but only if he/she has a complete overview of the firm. After the login phase, in order to personalize the experience, the first step of the algorithm profiles the user evaluating: country; role; juridical status of the firm; profit orientation (in order to provide the correct prospect for the value added determination under IV Directive and also for those SMEs that use only a cash flow statement); dimensions; sector; and, among those not mandatory item there is the presentation of the firm, number of local units and production sites; mission statement. The second and third steps consists in the self-assessment phase based on common items and specific sector supplements (using GRI guidelines) for a total of 56 items that can be skipped, while the fourth step consists in the final evaluation and the user has the possibility to download the final report.

#### **The development levels**

The developing phase has taken into account different operational levels: a scientific level, a materiality level and a syntactic level.

The scientific level refers to the need of interpret the data collected into a theoretical framework. As presented in the state of the art, the literature on CSR in SMEs is fertile, but there is a substantial lack of theories to interpret SMEs behaviors. In that sense, the literature demonstrates that small entrepreneurs are also sensitive to the reach a competitive level, it was assumed that the Corporate Social Performance model could be used as a referring theory. In that sense, at the base of the tool there is the Carroll's Pyramid of Responsibilities (1979) model. Garriga and Melè

(2004) classifies Carroll's theories under the integrative theory group as those theories that searches for social legitimacy and processes to give appropriate responses to social issues. In the model provided by Carroll, the author considered a definition of social responsibility, as a way to fully address the entire range of obligations business has to society, must embody the economic, legal, ethical, and discretionary categories of business performance. As discussed above, the continuum between reactivity and proactivity is considered as a linear model. Carroll's Pyramid cannot be adopted as a linear model, as it is obvious that firms can decide to approach the sustainability pyramid both in top down and bottom up sense (or in the middle).

Inspired by this model, the answers given by the CSR4UTOOL algorithm matched the Epstein linear model with the Carroll un-linear one. In particular, the algorithm codifies the answers in a framework supported by Unerman (2012) that includes four different motivations at the base of sustainability actions:

- 1) CSR actions to comply a legal standard or a managerial system;
- 2) CSR actions that can increase profit or reduce costs in the short-term;
- 3) CSR actions that can represent an investment and a source for competitive advantage;
- 4) CSR actions that are related to ethical and moral motivations.

In order to consider all the possible events, the algorithm includes also the case of: not interest on CSR, and, the case in which the entrepreneur wants to be socially responsible, but he perceive the CSR as a not affordable process and, for that reason, he does not want to be "socially responsible". Fig. 1 represents the scheme used for codifying the answer in the algorithm.

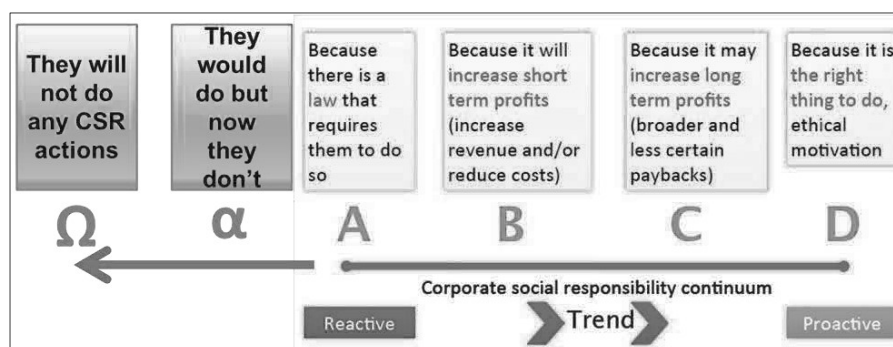


FIG. 1

The materiality level refers to the importance of referring to external and international standards in the selection of the items included in the algorithm. Complying with the previous checklist, the items has been selected and presented in the following order: CSR "term" and moral values; stakeholders; human rights; labor practices; suppliers; product or service responsibility; community development; environmental responsibility; financial responsibility; NGO. This order complies with the ISO26000 core concepts and, for each items a benchmark with international SEAR guidelines have been provided. In particular, each items was compared to GRI, GBS, GRI INGO, AA1000 Stakeholder engagement, OECD guidelines, UN Global Compact, Not-for-profit Agency guidelines, SA8000, ISO 14001, and EMAS. The comparison consisted to check if the item is present in these guidelines, how it is addressed and select the significance of the issue for an SME. This process is the equivalent of a materiality analysis as suggested by GRI. As there is not a scientific criterion for select the items, the tool has been created to be updated and modified with no costs of implementation.

For CSR "term" and moral values is intended: the knowledge of the acronym and the term; assess if the firm is following a policy, strategy, norms or a SEMS; eventually existence of SEAR process or reports or codified actions; external communication of CSR; internal communication of CSR; moral values that inspired the management culture. For the section stakeholders: the knowledge of the term stakeholder; an interactive stakeholder map using categorizing those who can influence and be influenced by the firm operational activities; eventually existence of stakeholder engagement actions. For human rights: sensitiveness towards human rights issues; eventually adhesion in human rights

defense actions and initiatives; presentation of a simulation (business case) in which the user is called to take a decision. For labor practices, the algorithm consider topics such as: gender equality in administrative and operational level; seniority levels; qualification; type of contract; CSR actions towards employees in terms of internal welfare; training and other benefit; evaluation of risks and safety. The theme “suppliers” aims to investigate the nature of the relation with the suppliers especially on topics such as: fair labor practices; audit and control on risks of non-compliant behavior (i.e. child labor, illegal labor, corruption, etc.); the role played by moral values during the dealing phase; CSR actions adopted by the firm; importance of networks of local suppliers; capacity to solve unmoral situation in dealing. About the responsibility related to product and service, the algorithm provides only the opportunity to select a list of CSR actions performed. About community development, the algorithm takes into account: CSR actions as corporate citizenship activities; relations with not-for-profit and social enterprises; awards received on sustainability subjects; value creation with public administrations. In relation to environmental responsibilities, the algorithm provides an evaluation on: understanding of the meaning “act in respect of the environment”; respect of the environment as source of competitive advantage; resolution of environmental issues/situation; environmental responsibility actions; performance data on waste management. About financial responsibility, the algorithm helps the entrepreneur to calculate the economic value added generated and distributes; it also asks data on fines for non-compliant actions, investment on CSR, and composition of the member of the board (presence of external manager not related to family in family business). The section related to NGO, is presented only to those NGO according to their profile, and it deals with: creation of shared value between purpose and financial equilibrium; importance of financial resources; management of funds; use of voluntary work and benefit provided to them, if any. After this general question, the algorithm present further sections on those supplement sectors identified by GRI, if any.

Moreover, the syntactic level has regarded the way through which one topics is addressed. First, different forms of questions/answers compose the algorithm:

- open answers used for present the firm and the mission: no semantic analysis are conducted on this;
- single-choice answers: used for applying the theoretical model discussed above (different  $\Omega - D$ );
- multiple-choice answers: used in order to list those CSR actions already adopted by the user;
- examples, practical situations or simulations: they have the aim of presenting a real case in which the user has to take a decision. Every case has been studied in order to imply a moral decision making process according to Kohlberg (1971);
- tables: in order to account and report quantitative information;
- interactive tools used only in the case of stakeholder map.

Secondly, a review of the terminological background of each items was performed. The structure of the sentences was revised in order to clarify the meaning of the questions and let the process easier to understand. For instance, according to Schlierer et al. (2012), and, in order to simplify the terminology used in CSR literature, the algorithm avoid the case of misinterpretation presenting a definition of the term included in the questions. In order to clarify a bit, the algorithm avoid the questions like: “*Is there a written agreement to exercise due diligence in order to identify, prevent and tackle the impacts, real or potential, linked to the activity in the field of human rights?*” in favor of a more clear question like: “*Does your organization join or adopt human rights defense programme/tools?*”

Third, in order to follow the rationale of the model, the answers are presented following the previous  $\Omega - D$  scale, for example:

$\Omega$  No, I have never heard this term

$\alpha$  No, I have never heard this terms but I am interested in getting more information

$A$  No, it does not, it only complies with mandatory laws and standards

$B$  Yes, it does, because we needed it in order to strength business relation or increase organization reputation

$C$  Yes, it joined UN GLOBAL COMPACT and it adopted the principles implementing them into its contracts and corporate policy in order to identify, prevent and tackle the impact, real or potential, of its activity in the field of human rights

$D$  Yes, it joined UN GLOBAL COMPACT because we want to be a different organization that actively denounce and prevent human rights violations

### **The results page**

The fourth step of the algorithm consists in the page of results. In that page, the user can have an overview of his corporate social performances divided by area of interests. For single-choice questions, the algorithm provide a score calculated as the mean of the answer given following the  $\Omega-D$  scale. The use of the numerical scale to explain a non-linear behavior is *di per se* an error, as obviously the mean reduces the variability of the behavior especially in this un-linear context. In order to reduce this error, the scores are provided divided in area of interest, but the error remains.

For multiple-choice questions, the tool provides a benchmark of the users choices vs. other respondent of the same sector(s). It is supposed that showing the benchmark can help the user to identify if his firm lead the peer group or lagging behind. In addition, the report contains a summary of the overall occurrences for these type of questions.

For data inserted in tables, the tool provides a graphical representation of the performances and a benchmarking with other peers. Sometimes, the system provides different alerts, to advice the user if there are problems related to the data filled in.

### **Discussion on ongoing results**

In July 2013, CSR4UTOOL was successfully presented during the final conference of LOIEs project and, in November 2013, it was completely functional. Nowadays, 125 users have been logged in and one third has finished the process of self-evaluation. Globally, it accounts more than 26000 pages visualized and more than 30 articles on press release. The tool is actually available in English, Italian, and Spanish. A Suomi translation will be uploaded during September 2014.

At June 2014, the 74% of the users are Italian firms, while the remaining 26% in equally distributed between European and non-Eu countries. The 76% of the users represent a profit company and 85% are SMEs, half of them is a micro enterprise (the remaining 15% has declared to act on the behalf of large company). As the collection of data is an ongoing process, the results after the first testing phase are under analysis and daily updated.

Several aims can justify the existence of the tool. First, it gives an answer to the need of tools for involving small entrepreneurs in applying sustainability core concepts into a free of charge and easy to use manner.

Secondly, the structure of the algorithm can be evolved including for instance an application in the field of vendor rating, banking sector for the evaluation of reputational risks and most important, in the public procurement process. The tool is developed explicitly for SMEs, but the data obtained can be used to derive important conclusions on the research side and for example in defining and studying public policy.

Of course, the existence of other ICT software to collect data and rate the sustainability of the performance are growing, but the CSR4UTOOL demonstrated that a web-based solution can be efficient overcoming the problems related to licenses and fees. In that sense, the opportunity for the user to download a brief report on his scores is perceived as incentive to use the tool as a service. For instance, the possibility to personalize the report has just been implemented.

While the findings could be useful for government in order to set public policies, for large companies in order to assess their supply chains, for banks to evaluate reputational risks, the process of self-evaluation is also a learning tool for academic purpose. A study on the adoption of the tool for academic teaching is ongoing and it will characterized the future versions of the CSR4UTOOL.

As a demonstration paper, the aim of this research is to shed light on the new technology that has been adopted to solve a gap both on literature and on the real economy side. As it is an innovative methodology and technology, the tool suffers of error and possible mistakes that are due on the statistical model and content side. In that sense, every scholars and practitioners that want to provide suggestions and insights are welcome.

## References

Contact author for the list of references.