

Sustainability **2015**, *7*, 4120–4130; doi:10.3390/su7044120

OPEN ACCESS

sustainability

ISSN 2071-1050

www.mdpi.com/journal/sustainability

Article

Social Values and Sustainability: A Survey on Drivers, Barriers and Benefits of SA8000 Certification in Italian Firms

Roberto Merli ^{1,*}, Michele Preziosi ¹ and Ilaria Massa ²

¹ Department of Business Studies, Roma Tre University, Via Silvio D'Amico, 77, 00145 Rome, Italy; E-Mail: michele.preziosi@uniroma3.it

² Management Department, “Sapienza” University of Rome, Via del Castro Laurenziano 9, 00161 Rome, Italy; E-Mail: ilariamassa89@gmail.com

* Author to whom correspondence should be addressed; E-Mail: roberto.merli@uniroma3.it; Tel.: +39-06-5733-5813; Fax: +39-06-5733-5797.

Academic Editor: Marc A. Rosen

Received: 31 October 2014 / Accepted: 31 March 2015 / Published: 8 April 2015

Abstract: Companies are increasingly required to deal with sustainability issues through the adoption of Corporate Social Responsibility (CSR) practices. Among the different CSR aspects, workers securities fulfill a necessary issue. SA8000 is an internationally accepted tool that aims to guarantee decent workplace across all industrial sectors. Italian companies represent more than 30% of certified organizations on a global level. Company size is a key factor in the definition of managerial strategies. A survey that involved more than 600 SA8000 certified companies has been conducted. Company dimension has been used as a parameter to interpret survey results. The aspects analyzed mainly consisted of drivers, barriers and benefits in SA8000 certification pathway. The study showed a high level of homogeneity among firms. According to SA8000 requirements, one of the main issues is the implementation of control and awareness mechanisms addressed to suppliers. Survey results highlight that all respondents recognize the importance of suppliers' involvement, considered as one of the most difficult phases in implementing certification. However, there were no significant differences among Micro, Small, Medium and Large companies.

Keywords: SA8000; Corporate Social Responsibility; CSR; Survey; Italy

1. Introduction

In response to the growing importance of sustainability, companies are gradually modifying their behavior [1]. This trend can be attributed to the awareness that social issues affect business efficiency [2]. CSR theoretical origins derive from stakeholder theory [3]. Anyone who is affected by corporate decisions has to be considered as a relevant interlocutor. This set contains many subjects, from shareholders to civil society. The need to classify stakeholders to better address actions oriented to them produced the distinction in primary and secondary stakeholders. The first group includes those who are fundamental for the company existence [4], as workers. During the last two decades, awareness on the existence of workers' rights violations increased, thanks to NGOs and International Organizations. These organizations highlighted effects on workers wellbeing due to off-shoring processes to Countries where labor costs are lower and there is a lack of stringent laws guaranteeing human rights protection. Among the tools developed to assess and implement sustainable solutions, SA8000 certification represents a reference point in the field of safeguarding working conditions [5]. SA8000 is an auditable voluntary certification focusing on workers' rights protection and in particular to guarantee decent work places safeguard across all industrial sectors. The first version of the Standard was drafted in 1997 by Social Accountability International. It was followed by two revisions, the first published in 2001 and the second in 2008. In June 2014, the latest version of the standard has been issued, which will come into force in 2015. The areas of protection defined by the standard refer to those outlined by the International Labor Organization Conventions, the Universal Declaration of Human Rights and the United Nations Convention on the Right of the Child. In SA8000, corporate codes are also taken into account with the aim to harmonize social performances assessment.

SA8000 scope is not confined within the boundaries of organizations that implement it [6]. Companies are asked to monitor their supplier's behavior, in particular in cases where part of their productive process is outsourced to Countries where workers' rights protection is poorly guaranteed [7]. The standard contains prescriptions for employers concerning nine areas of human resources management: Child Labor, Forced Labor, Health and Safety, Freedom of association and collective bargaining right, Discrimination, Discipline, Working hours, Compensation, Management system. At the beginning of 2014, 3388 organizations were certified, whose headquarters are located in 71 different Countries and with a total of 2,019,193 employees. Among them, the country with the largest number of certified companies is Italy with a total of 1064 certified firms representing about 31.40% of the total of certified organizations, followed by India and China, where 840 and 565 certified companies are respectively located [8].

The present paper aims to verify if and how companies of different sizes relate to SA8000 certification.

The article structure is organized in two parts. In the first part an exploration of the literature relating to SA8000 standard is presented. Specifically, the empirical studies on the subject have been considered, underlining the main evidences of several surveys carried out in the last years to understand how firms relate to this social accountability tool. Articles on the Italian and the Indian context have been analyzed, representing two countries where the standard is significantly widespread. In the second part, the applied methodology and the results related to SA8000 implementation drivers, difficulties and benefits are discussed.

2. Literature Review

Gilbert and Rasche performed a critical analysis of SA8000, due to the increased demand for social accountability standards, requiring more transparency and ethical performance measurement, especially for multinational corporations (MNCs) [9]. The main advantage related to the certification is not just the opportunity for firms to improve working conditions, but that the achieved improvement is auditable [10]. SA8000 is the first auditable standard for working conditions. To achieve the issue of SA8000 certified, firms are almost objectively evaluated on their efforts for a better working environment. Companies have the chance to demonstrate their commitment in dealing with negative effects of their activities. In literature, three critical issues related to the certification are underlined. First, the development process (carried out by the Advisory Board) of the standard was dominated by some categories as experts from trade unions, businesses, and NGOs, while other stakeholders such as consumers and suppliers were not represented. Moreover, a structured procedure on how to establish dialogue with firms' stakeholders is not provided, even if the maintenance of communication to all interested parties is a pillar of the standard. Finally, suppliers dealing with MNCs are forced to implement SA8000, determining that the acceptance of the standard is externally imposed due to fear of sanctions or market exclusion in case of non-compliance [9]. This is particularly evident when western buyers' companies impose upon small suppliers from developing Countries to comply with the standard without a participative approach and without any considerations of local suppliers social and cultural context [11].

In the last years, several studies have been conducted in order to analyze the application of this CSR tool. The first study on SA8000 was conducted in 2005 to mainly analyze SA8000 application in SMEs, operating in manufacturing and service sectors [12]. According to the survey developed by La Rosa and Franco, the main reasons for adopting SA8000 certification referred to corporate image improvement and to human resources upgrading. However, an increase in operating costs was registered. Solomon has provided an overview of the prevalent integrated management systems among Italian companies. The main difficulties encountered in the certification path concerned the lack of information available to companies and the lack of competent personnel to implement the process [13].

Ciliberti *et al.* focused their analysis on SA8000 implementation in SMEs and on supply chain management. Despite certification costs, companies found an effective asymmetric information and transaction costs reduction [14]. In addition, SA8000 certification was identified as one of the most useful tools for Corporate Social Disclosure so it helps to increase companies' competitiveness [15]. Finally, given the large number of SA8000 certified organizations in India, it is deemed relevant to report the main results of the study conducted by Stigzelius and Mark-Herbert on Indian clothing factories. Authors identified as one of the key implementation drivers the pressure exerted by international retailers. International retailers demand as a minimum requirement the compliance with international agreements on labor. Furthermore, authors highlighted as main obstacles to SA8000 implementation the increasing labor costs and the expenses to be incurred for the certification [16].

Belal and Roberts conducted a study using semi-structured interviews in Bangladesh, a Country characterized by a fast-growth industrialization, marked by significant western investment for export-oriented production. The interviews, dispensed to several non-managerial stakeholder groups, aimed to understand the perception of CSR and private standard for social accountability. SA8000 is

perceived by some interviewed as a useful tool to increase firms' competitiveness, reducing barriers to work in global supply chains. To be included in global supply chains, companies are always more demanded to comply with CSR requirements. Moreover, the spread of SA8000 is perceived as an instrument to enhance working conditions in Bangladesh. Conversely, according to others interviewed, the implementation of the standard can create economic burden on domestic suppliers, with a negative impact on country's export. Another negative aspect is that SA8000 does not necessary address critical issues related to the local economy and society contest [17].

Recently Albano *et al.* conducted a survey on SA8000 certified Italian SMEs. According to their analysis, the certification does not challenge companies in significantly changing work practices. Actions implemented are mainly addressed to personnel training and to improve internal communication. Finally, authors find out that companies did not perceived any business competitive advantage thanks to the certification [18].

In 2014 an investigation on Consumers' Willingness to Pay (WTP) for food products with CSR certification was conducted in Italy. Specifically, the aim was to clarify if SA8000 certification positively influences consumers' purchasing choices. There is a positive relationship between consumption and CRS, and SA8000 contributes to firms' positive differentiation on the market, enhancing consumers' purchase intention and loyalty. Survey results generally indicated that WTP for certified products is higher than for non-certified products. SA8000 for interviewed consumers increases the perceived value of products, determining the generation of a premium price. Therefore, SA8000 increases firms' competitiveness on market through a differentiation strategy, especially among western consumers with a high expenditure capacity and stronger social and ethical concerns [19].

3. Experimental Section

3.1. Methodology

The present survey was addressed to the entire population of Italian firms certified SA8000. The survey was conducted in two different periods, between December 2009 and September 2012.

The questionnaire (see Supplementary Materials) consists of three parts (Figure 1). The first part aims to gather general information on businesses' activities, and details on companies' population. The second part is directed to investigate how companies generally interface with the CSR issue, their overall perception of social responsibility and the actions taken. Concerning SA8000, the third part focuses on certification drivers: main difficulties during the implementation process and achieved benefits thanks to the certification.

The chosen methodology is a set of multiple-choice questions evaluated using Likert scale from 1 to 5 (1 = Not important, 5 = Very important). Respondents have been contacted by telephone and then the questionnaire was sent by email, fax or regular mail address.

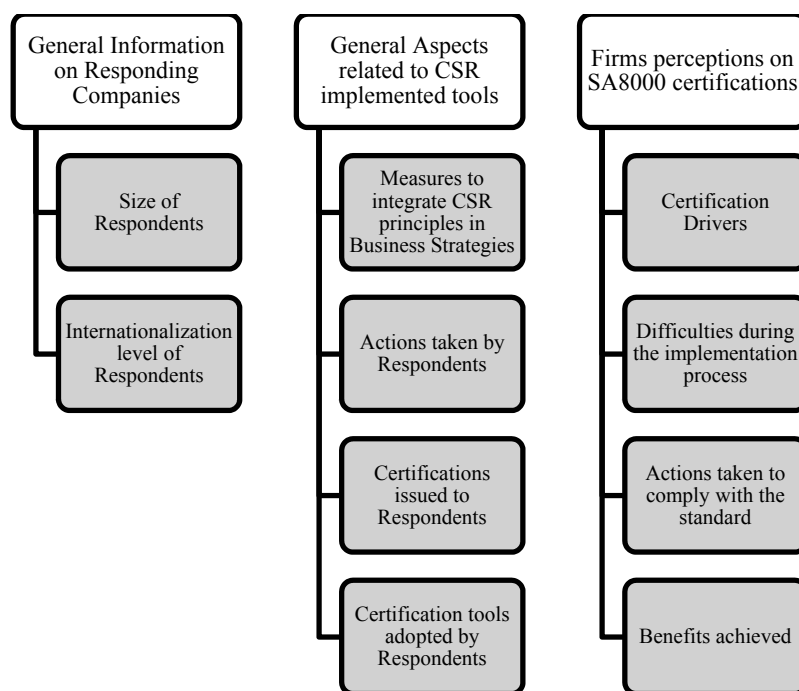


Figure 1. Survey structure.

3.2. Survey Findings

The initially considered population is made up of 1201 companies. This number is significantly high, because the survey was conducted on a rather long period of time, so that, in the mean time, many companies did not renew the certification, and many others received the certificate for the first time. During the survey distribution, 79 firms stated that they no longer have the certification and 73 firms were duplicates because they received different certificates for companies owned by the same owners. This information reduced the population to 1049 organizations. Sixty five companies could not be contacted, but they were included in the population. The 61.87% of the purposeful population (649 organizations) responded to the questionnaire. The sample size is considered significant because above the threshold of optimality (281 units) calculated with the Formula (1) of simple random sample without replacement [20].

$$n = \frac{Z_{\alpha/2}^2 N p (1 - p)}{e^2 (N - 1) + Z_{\alpha/2}^2 p (1 - p)} \quad (1)$$

$$Z_{\alpha/2} = 1.96, N = 1.049, p = 0.5, e = 0.05 \Rightarrow n = 281$$

4. Results and Discussion

Respondent firms were divided according to the company size. Enterprises were divided into groups using the European Community classification. According to Recommendation 2003/361/EC, businesses are divided into four groups on the basis of their turnover and employees. The following study analyzes how firms presenting different organizational characteristics have undertaken the certification path. In Figure 2 there are shown respondents sharing by type of enterprise: about 60% is composed of medium and small firms, while the micro firms account for about 12%.

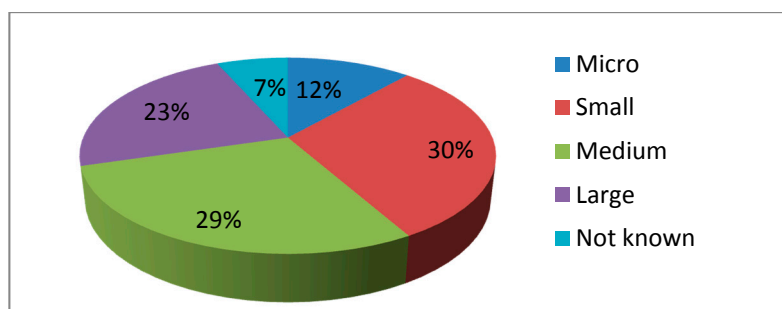


Figure 2. Survey respondents by category.

Hereafter, the main findings about respondents' perceptions on relevant issues concerning SA8000 certification are described. In particular, they were asked about voluntary certification tools, SA8000 implementation drivers, the operational actions taken and finally the difficulties they ran into and the achieved benefits. For each of these aspects, differences and common aspects expressed by different categories of companies have been highlighted.

4.1. CSR and Certification

Among measures to integrate CSR principles in the business strategy, companies consider relevant the implementation of best practices (Table 1). Moreover, firms recognize the importance of their role in contributing to cultural development through social awareness campaigns addressed to their stakeholders.

Table 1. Perception of the importance of good practices development and dissemination.

Company Size	Micro	Small	Medium	Large
Mean value	4.37	4.24	4.20	4.28

To investigate how CSR practices are integrated into companies' management, we asked to indicate if firms were in possession of other certifications. It is evident that ISO 9001 standard is the most widespread certification among respondents (Table 2). An increasing attention towards environmental issues has been registered among medium and large enterprises, certified by a high level of diffusion of ISO 14001 certificates. It is interesting to notice that, concerning CSR tools, sustainability report and ethical codes are widely adopted. Approximately 50% of micro and small enterprises adopt only one of these tools, however about 35% of medium and large enterprises adopt more than one instrument simultaneously.

Table 2. Corporate Social Responsibility (CSR) instruments diffusion rate among businesses.

CSR Instrument	Company Size			
	Micro	Small	Medium	Large
ISO 9001:2008	82.19%	88.78%	90.81%	97.32%
ISO 14001:2004	20.55%	44.39%	50.09%	65.77%
EMAS III	5.48%	7.65%	10.33%	6.04%
Sustainability Report	61.64%	61.73%	66.49%	60.40%
Environmental Report	9.59%	16.33%	21.08%	21.48%
Ethical Code	49.32%	51.02%	61.62%	66.44%

4.2. SA8000 Implementation Drivers

The perspective of improving the relationship with employees is an important driver in motivating companies to undertake the certification path. It was found (Table 3) that all categories of enterprises consider this aspect as “important”. Furthermore, high importance is attributed to the possibility of improving company image, and also relevant to all categories of firms is the expectation that SA8000 certification contributes to achieve a competitive advantage, with a growing significance directly related to the company’s dimension.

Table 3. Aspects that influenced companies in achieving SA8000 certification.

Influence	Company Size			
	Micro	Small	Medium	Large
Improving company image and reputation	3.93	4.21	4.06	4.22
Increasing employees satisfaction	3.99	4.02	3.99	4.13
Obtaining competitive advantages	3.21	3.63	3.61	3.82
Attracting new customers	3.30	3.37	3.26	3.56
Protecting the brand	2.86	3.24	3.04	2.94
Attracting qualified personnel	2.59	2.70	2.51	2.62
Obtaining better credit conditions	2.35	2.32	2.29	2.11

On the other hand, the achievement of SA8000 certification it is not considered able to attract qualified personnel: for all categories of interviewed this aspect presents a low mean value, between 2.50 and 2.70. Moreover, as observed in other researches on the topic, banks still seem not to understand the importance of CSR tools in general, to protect a company reducing its economic risks.

4.3. SA8000 Implementation Difficulties

The results collected on this question are shown in Table 4, and organized in two parts. The first part presents the results related to the main difficulties about preliminary actions necessary to implement SA8000 system. The second part includes items related to costs that companies incur to certify.

With regard to the obstacles encountered by companies during their certification process, all interviewed firms have experienced difficulties in involving their suppliers to implement workers’ rights safeguarding practices, with an average score of 3.88. Moreover, the largest companies consider the personnel involvement as a critical factor (the score grows from 2.82 to 3.43). This can be attributed to the organizational complexity of firms with a large number of employees, compared to smaller firms with a more streamlined structure. As could be expected, there is a substantial difference between the categories about the availability of financial resources. This explains why, for small and micro businesses, the availability of resources to cover the certification costs is one of the main problems encountered in implementing SA8000, together with the ones related with consultancy services.

Table 4. Level of difficulties encountered by companies in implementing SA8000 standard.

Size	Micro	Small	Medium	Large
Preliminary actions related to:				
Cost-benefits assessment	2.97	2.80	2.60	2.97
Finding specific skills	2.62	2.65	2.59	2.86
Employees engagement	2.82	3.01	3.18	3.43
Suppliers involvement	3.84	3.88	3.94	3.88
Plan the implementation phases	3.07	3.03	3.01	3.05
Implement the operational control	3.00	3.05	3.10	3.18
Document management	3.11	2.94	2.91	2.89
Internal audits	2.76	2.82	2.81	2.93
Management of non-compliance	2.85	2.69	2.72	2.87
Relations with the Certification Body	2.42	2.35	2.26	2.35
Obtaining economic resources to cover costs related to:				
Consultancy	3.25	2.92	2.63	2.52
Certification	3.41	3.05	2.89	2.72
Staff training	2.82	2.79	2.75	2.67
Suppliers evaluation	2.86	2.78	2.68	2.60
Equipment and control devices	2.55	2.32	2.07	2.13
Salary increases and services to employees	2.65	2.31	2.15	2.10

4.4. SA8000 Actions for Compliance with the Standard

Another survey goal was to identify the actions implemented by respondents to comply with the standard requirements. Table 5 shows the mainly diffused actions among different categories of firms. As internal actions, companies implemented procedures to allow workers to file complaints, and appointed a manager to handle disputes addressed between the workforce and the management. As external actions, the main attention was focused on suppliers. Companies collected information on their suppliers and engaged suppliers in their CSR actions. Customers are also involved and informed by businesses on worker protection issues.

Table 5. Most widespread actions taken by the four groups.

Size	Micro	Small	Medium	Large
Procedures for dealing with complaints	84.62%	90.38%	92.09%	92.57%
Designation representative for workers disputes	78.46%	85.26%	80.00%	80.27%
Increasing suppliers and costumers awareness	90.77%	92.90%	89.29%	95.30%
Collecting information on suppliers	86.15%	87.90%	95.00%	94.59%

Analyzing the results about actions implemented by firms, a general consistency among different categories of enterprises has been noticed. However, micro and small enterprises declare to not have established any joint committees for disputes resolution. This internal action was indeed carried out by just 9.59% of micro firms and 8.29% of small firms.

4.5. Achievements Obtained with SA8000 Certification

Finally, companies were asked to indicate the benefits achieved in terms of human resources management and stakeholder management.

All categories of companies believe (Table 6) that an adequate improvement of the corporate image due to the standard adoption, with an average score of 3.82, was the best result achieved, together with the improvement of relationships with internal stakeholders, as showed by the improvement in relations with employees (mean value 3.64). Even if considered not so important among the different motivations, the ability to attract qualified personnel has been surprisingly considered as a good result of SA8000 certification and CSR efforts in general.

Table 6. Importance of benefits gained with SA8000 certification.

	Micro	Small	Medium	Large
Improvement of corporate image and reputation	3.61	3.93	3.78	3.88
Improvement in relations with employees	3.56	3.69	3.65	3.62
Attraction of qualified staff	3.39	3.49	3.39	3.35
Obtaining competitive advantages	2.92	3.22	3.20	3.44
Brand protection	3.01	3.26	3.29	3.10
Suppliers engagement	2.56	2.90	2.81	2.97
New costumers acquisition	2.50	2.71	2.76	2.91
Obtaining better financial and insurance conditions	1.82	1.98	2.12	1.85
Facilities in permits	1.87	2.05	2.02	1.88

On the market level, the quiet satisfactory scores about obtaining competitive advantages and realizing a protection of the company's brand are negatively balanced by the absence of a direct effect on the capacity to acquire new customers. It is interesting to notice that the only benefit category where a slight but significant difference has been found among companies of different dimension is the one concerning the market results, with larger firms showing better scores. Confirming what was found in the implementation difficulties, the involvement of the supply chain, precisely required by the SA8000 standard, represented one of the major problems in the certification path, and consequently the results seem to be quite poor.

5. Conclusions

The aim of the present work was to highlight the main difficulties and benefits faced by companies of different size along the SA8000 certification pathway, by reason of the different resources availability. The analysis did not reveal any particular distinguishing features among categories of companies. Indeed, the population presents a high degree of homogeneity. According to Albano *et al.*, that phenomenon can be partly attributed to a common characteristic shared by the certified firms. All respondents are multi-certified organizations and therefore they have a strong orientation to adopt CSR best practices [18].

According to the literature, enhancing corporate image is the main driver to encourage firms in implementing SA8000. The issue is confirmed by results, as image improvement is considered the main benefit obtained. Even though results highlight that the main difficulties for all categories are

employees (especially in large firms) and suppliers engagement, the survey reveals that all firms perceived employee involvement as one of the most valuable results. Slight differences among categories of enterprises emerged in relation to the difficulties encountered during the certification process.

The survey showed that Italian firms considered SA8000 more effective in improving relations with internal stakeholders. Companies declare to have implemented actions to deal with workers conditions enhancement and they did not state to have encountered difficulties in setting salary increases and services to employees, registering as a consequence a relevant increase in employees' satisfaction.

On the market side, the possible positive effects seem to be still not so clear, even if quite satisfactory about brand protection and competitive advantages, especially for large companies that are operating on a world scale, which are often monitored by consumers' associations.

Future outlook should aim to explore if the observed lack of benefits perceived in the relationship with the supply chain is due to a low effectiveness of actions or to the need to consider new management tools.

Supplementary Materials

Supplementary materials can be accessed at: <http://www.mdpi.com/2071-1050/7/4/4120/s1>.

Author Contributions

The authors equally contributed to the reported research in terms of conception, design and analysis of the data. In particular, Roberto Merli mainly contribution was related with the conception of the survey and the questionnaire design, whilst Michele Preziosi and Ilaria Massa developed the data analysis. All the authors discussed the structure and reviewed the manuscript at all stages, approving the final version of the manuscript.

Conflicts of Interest

The authors declare no conflict of interest.

References

1. Baumgartner, R.J.; Ebner, D. Corporate sustainability strategies: Sustainability profiles and maturity levels. *Sustain. Dev. J.* **2010**, *18*, 76–89.
2. Battaglia, M.; Bianchi, L.; Frey, M.; Iraldo, F. An innovative model to promote CSR among SMEs operating in industrial clusters: Evidence from an EU project. *Corp. Soc. Respons. Environ. Manag.* **2010**, *17*, 133–141.
3. Asif, M.; Searcy, C.; Zutshi, A.; Ahmad, N. An integrated management systems approach to corporate sustainability. *Eur. Bus. Rev.* **2011**, *23*, 353–367.
4. Clarkson, M.B.E. A Stakeholder framework for Analyzing and Evaluating Corporate Social Performance. *Acad. Manag. J.* **1995**, *20*, 92–117.
5. Poveda, C.A.; Lipset, M. A review of sustainability/environmental rating systems and credit weighting tools. *J. Sustain. Dev.* **2011**, *4*, 36–55.

6. Social Accountability International (SAI), SA8000:2008. Available online: http://sa-intl.org/_data/n_0001/resources/live/SA8000ConsolidatedGuidance2013.pdf (accessed on 2 September 2014).
7. Ciliberti, F.; Pontrandolfo, P.; Scozzi, B. Logistics social responsibility: Standard adoption and practices in Italian companies. *Int. J. Prod. Econ.* **2008**, *113*, 88–106.
8. Social Accountability Accreditation Services, SA8000 Certified Facilities. Available online: <http://www.saasaccreditation.org/sites/default/files/u4/CB%20by%20Country%2C%20Q4%202013.pdf> (accessed on 2 September 2014).
9. Gilbert, D.U.; Rasche, A. Discourse Ethics and Social Accountability—The Ethics Of SA 8000. Available online: <http://ssrn.com/abstract=1652151> (accessed on 4 January 2015).
10. Leipziger, D. *SA 8000—The Definitive Guide to the New Social Standard*, 1st ed.; Prentice Hall: Upper Saddle River, NJ, USA, 2001.
11. Rasche, A. The Limits of Corporate Responsibility Standards. *Bus. Ethics A Eur. Rev.* **2010**, *19*, 280–291.
12. La Rosa, S.L.; Franco, E.L. Corporate Social Responsibility: A Survey of the Italian SA8000 Certified Companies. *Asian J. Qual.* **2005**, *6*, 132–152.
13. Salomone, R. Integrated management systems: experiences in Italian organizations. *J. Clean. Prod.* **2008**, *16*, 1786–1806.
14. Ciliberti, F.; Groot, G.; De Haan, J.; Pontrandolfo, P. Codes to coordinate supply chains: SMEs' experiences with SA8000. *Supply Chain Manag.* **2009**, *14*, 117–127.
15. Casadei, A.; Amadei, F. The competitive influence of corporate social responsibility and corporate social disclosure in Italian small and medium sized companies: Focus on disclosure and competitive drivers. *Soc. Environ. Account. J.* **2010**, *30*, 13–25.
16. Stigzelius, I.; Mark-Herbert, C. Tailoring corporate responsibility to suppliers: Managing SA8000 in Indian garment manufacturing. *Scand. J. Manag.* **2009**, *25*, 46–56.
17. Balal, A.R.; Roberts, R.W. Stakeholders' Perceptions of Corporate Social Reporting in Bangladesh. *J. Bus. Ethics* **2010**, *97*, 311–324.
18. Albano, V.; Marchiori, M.; Scalia, E. Pratiche di responsabilità sociale nelle PMI certificate: Un'indagine sulla SA8000 in Italia. Available online: <http://www.impresaprogetto.it/essays/2012-2/albano-marchiori-scalia> (accessed on 1 April 2015). (In Italian)
19. De Magistris, T.; Del Giudice, T.; Verneau, F. The Effect of Information on Willingness to Pay for Canned Tuna Fish with Different Corporate Social Responsibility (CSR) Certification: A Pilot Study. *J. Consum. Aff.* **2014**, doi:10.1111/joca.12046.
20. Yates, D.; Moore, D.S.; Starnes, D.S. Producing data: Surveys, observational studies and experiments. In *The Practice of Statistics*, 3rd ed.; W.H. Freeman and Worth Publishers: Bedford, OH, USA, 2008; ISBN 978-0-7167-7309-2.