Proceedings of

The 12th European Conference on
Research Methodology for Business and Management Studies

University of Minho, Guimaraes
Portugal
4-5 July 2013

Edited by
Anabela Mesquita, Instituto Politécnico do Porto
And
Isabel Ramos, University of Minho, Guimaraes
Portugal

A conference managed by ACPI
www.academic-conferences.org
Proceedings of the 12th European Conference on Research Methodology for Business and Management Studies

University of Minho
Guimaraes, Portugal

4-5 July 2013

Edited by
Isabel Ramos
Conference Chair
Minho University, Guimaraes
Portugal
and
Anabela Mesquita
Programme Chair
Instituto Politécnico do Porto
Porto, Portugal
<table>
<thead>
<tr>
<th>Paper Title</th>
<th>Author(s)</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preface</td>
<td></td>
<td>iv</td>
</tr>
<tr>
<td>Committee</td>
<td></td>
<td>v</td>
</tr>
<tr>
<td>Biographies</td>
<td></td>
<td>viii</td>
</tr>
<tr>
<td>Selecting Public e-Procurement MCDA Methods Using a Three Tier Evaluation Mixed Method (TTMM) Research Model</td>
<td>Mohamed Adil, Miguel Baptista Nunes and Guo Chao Peng</td>
<td>1</td>
</tr>
<tr>
<td>“Experts and Novices”: An Intervention to Support Literature Review and Analysis</td>
<td>Deborah Anderson</td>
<td>9</td>
</tr>
<tr>
<td>Evaluating a Newly Implemented Dissertation Supervision System – Views From Both Sides of the Equation</td>
<td>Marie Ashwin and Alan Hirst</td>
<td>15</td>
</tr>
<tr>
<td>Barriers to Using Qualitative Methods in Business and Management Research in Ukraine</td>
<td>Yevhen Baranchenko and Andrey Yukhanaev</td>
<td>24</td>
</tr>
<tr>
<td>In a Word: Applying Cognitive Interviewing Methods in Legal Market Research</td>
<td>David Bednall, Marie Ashwin and Alan Hirst</td>
<td>32</td>
</tr>
<tr>
<td>The Prevalence of Research Methodology Mis/Conceptions Among Business and Management Academics</td>
<td>Frank Bezzina and Mark Saunders</td>
<td>40</td>
</tr>
<tr>
<td>Looking Through, Looking at and Looking Behind: Using Photos in Research Interviews</td>
<td>Zelma Bone</td>
<td>48</td>
</tr>
<tr>
<td>Ethnography in Information Systems Research</td>
<td>Ann Brown</td>
<td>58</td>
</tr>
<tr>
<td>A Methodological Scan of a National Industry Based Research Program for the Rail Industry 2007-2014</td>
<td>Roslyn Cameron</td>
<td>65</td>
</tr>
<tr>
<td>Applying the GRAMMS to a Community Engaged Mixed Methods Study of Skilled Migrants in Regional Australia</td>
<td>Roslyn Cameron, Trudy Dwyer, Scott Richardson, Ezaz Ahmed and Aswini Sukumaran</td>
<td>74</td>
</tr>
<tr>
<td>Conflicting Conceptions of Business Ethics Methodology</td>
<td>Nicholas Capaldi</td>
<td>85</td>
</tr>
<tr>
<td>And we Shall Spend the First Million Together: Narrative as Basis for a Case Study Research Process</td>
<td>Margarida Cardoso and Isabel Ramos</td>
<td>90</td>
</tr>
<tr>
<td>Crisis Management Simulations – Narrative Inquiry Into Transformative Learning</td>
<td>David Clemson and Khalid Samara</td>
<td>100</td>
</tr>
<tr>
<td>Developing a General Analytical Inductive Qualitative Research Strategy to Investigate Business School - Industry Collaboration</td>
<td>Fariba Darabi and Murray Clark</td>
<td>108</td>
</tr>
<tr>
<td>Mixed Methods Research: Creating Fusion From the QUAL and QUAN Data Mosaic</td>
<td>Sally Eaves</td>
<td>118</td>
</tr>
<tr>
<td>A Multi-Layered Approach to Surfacing and Analysing Organisational Narratives: Increasing Representational Authenticity</td>
<td>Sally Eaves and John Walton</td>
<td>127</td>
</tr>
<tr>
<td>Comparison of Methodologies of CSR Index – Application to the PSI 20 Companies</td>
<td>Paula Fernandes, Ana Paula Monte, Rui Pimenta and Sandra Afonso</td>
<td>137</td>
</tr>
</tbody>
</table>
Comparison of Methodologies of CSR Index – Application to the PSI 20 Companies

Paula Fernandes¹, Ana Paula Monte¹, Rui Pimenta² and Sandra Afonso³
¹Economics and Management Department, School of Technology and Management - Polytechnic Institute of Bragança, Bragança, Portugal and NECE (UBI), Covilhã, Portugal
²Biostatistics and Health Management Units, ESTSP, Polytechnic Institute of Porto, Porto, Portugal
³School of Technology and Management - Polytechnic Institute of Bragança, Bragança, Portugal
pof@ipb.pt
apmonte@ipb.pt
rep@estsp.ipp.pt
a24528@alunos.ipb.pt

Abstract: Corporate Social Responsibility (CSR) has assumed increasing importance over the past several decades, globally resulting from the companies’ response to the demands of markets and society for responsible growth, both social and environmentally. At a European level, the CSR was initially boosted in 1993 by the former President of the European Commission, Jacques Delors, who called for more socially responsible action from companies. It culminated in 2001 with the publication of the Green Paper on CSR, by the European Commission in which the areas and guidelines for desirable social responsibility practices were defined. The measurement of social or CSR performance has not been consensual, which accounts for the existence of several methods. These use a variety of criteria ranging from expert evaluation to the analysis of reports and other documents or considerations of performance measures of pollution control. Each of these criteria is not exempt from criticism and limitations, as they are one-dimensional or do not reflect all aspects of CSR. Based on these measures, some evaluation CSR indices were developed, having been used in decision-making and positioning of the companies in their social and environmental performance. The most commonly used indices are those provided by the rating agency Kinder, Lindenberg and Domini index, or the reputation index of Fortune. This paper aims to compare the application of two methods in defining the levels of CSR from a CSR index, constructed for 19 of the 20 companies comprising the PSI-20, the Portuguese stock market index, the Euronext Lisbon. One of the methodologies defines five intervals of CSR using the cut-point method; the other considers a scale of 5 points (5 grades) with constant intervals. In order to construct the index, 247 items were considered, comprising the different dimensions of social responsibility suggested by the European Commission Green Paper on CRS of 2001 and the guidelines of the Global Reporting Initiative. We analyzed the contents of sustainability reports and financial reports of companies under research in order to assign a score (which will be 0 if the item is not observed, 0.5 if is only partially observed or 1 whether it is observed) for measurement of each item of responsibility, since there are no quantifiable and objective social responsibility indicators. The CSR index of a company, at any given time, is the sum of the scores across all 247 items. The categorization of companies in the CSR levels depends on the referred methodology to the definition of intervals. In brief, by using the two approaches, we found that the Portuguese companies which were analyzed denote a growing sensitivity in the adhesion and dissemination of their social responsibility practices, investing in a more specific and detailed disclosure and, in particular, complying with the guidelines of the Global Reporting Initiative.

Keywords: corporate social responsibility, CSR index, cut-point method, PSI-20

1. Introduction

Despite the evidence of social concerns by companies previous to their written conceptualization, Corporate Social Responsibility (CSR) emerges as a formal written concept, in the United States, in the 1950’s, with the publication by Howard R. Bowen, entitled "Social responsibilities of the businessman", marking the beginning of modern literature on CSR (Carroll 1999; Carroll & Shabana 2010).

In the European context, CSR was initially boosted in 1993 by the former President of the European Commission, Jacques Delors, who called for more socially responsible actions from companies. Since then, the European Commission has engaged in several initiatives to promote CSR. The publication of the Green Paper marked the commitment to build a European framework for CSR. It launched the challenge to articulate CSR with the goals set in the European Council of Lisbon 2000, namely to build the world’s most dynamic and competitive economy, based on knowledge, and to create an "European Enterprise", open to innovation and entrepreneurship. Although these goals have not yet been achieved, they continue to make sense, especially
in the challenging times we are facing, where more responsibilities are demanded and CSR can play an important role, setting the path to a more responsible and sustainable Europe.

The European Commission, in the Green Paper, considered CSR in a voluntary basis, urging all companies, in a generalized way, to contribute to a more equal society and to a cleaner environment, assuming responsibilities towards employees and stakeholders. Corporate social responsibility was framed in two dimensions: (1) an internal dimension which includes several aspects related with "human resources management", "health and safety at work" "adapting to change" and "management of environmental impacts and natural resources"; (2) an external dimension, including "local communities", "business partners, suppliers and consumers", and "human rights and global environmental concerns" (COM 2001).

In Portugal, although many companies used CSR practices in an informal way, it was only after the celebration of international agreements, more specifically, the European Lisbon Conference of 2000 (CECOA 2004), that it begun being used as a systematic practice. Most of Portuguese companies report CSR based on GRI considering the goals of triple bottom line: economic, social and environmental.

The difficulties to obtain systematic and reliable information, the inexistence of CSR measure models or indexes that could be used in a diverse approach are some of the limitations on researches in this area. This investigation proposes to compare the application of two methods in defining the levels of CSR from a CSR index, constructed for 19 of the 20 companies comprising the PSI-20, the Portuguese stock market index, the Euronext Lisbon, comprising the different dimensions of social responsibility suggested by the European Commission Green Paper on CRS of 2001 and the guidelines of the Global Reporting Initiative.

To this end, this paper is divided into five further sections apart from the introduction: in the second section it is intended to make an overview on the thematic under consideration after which the methodology that supports the study is presented, followed by the presentation and analysis of the results and, finally, the presentation of the most relevant conclusions of this research work.

2. Background

Globalization has increased economic, social and political interdependence, raising awareness to the responsibilities and the role that organizations must undertake in society, considering not only their economic impact but also the way their activities affect environment and society. The greater the power and influence of an organization, the greater the impact of its action its responsibility demands. Pressures, environmental incidents, corruption, unethical conduct and undignifying working conditions are some of the actions that emphasize the need for a more responsible conduct by companies.

According to Zadek (1999), Freeman and Hasnaoui (2011), despite the fact that organizations are increasingly under pressure, the main motivation to turn towards social responsibility relates to organizational changes and a market driven by globalization and technological development. The transparency of business imposed by the media and the new communication technologies are also further reasons pointed by European Commission in this context (COM 2001).

A growing number of investors also require knowledge on companies’ responsibility actions; employees feel more motivated when working for a company with a good image that undertakes initiatives that contribute towards a better society; more consumers choose to buy products and services of socially responsible companies (Maignan, Ferrell & Hult 1999; Cho & Patten 2008; Lama & Muyzenberg 2008; Lioui & Sharma 2012). All these changes encourage organizations to undertake CSR, relating their social performance, and some take the opportunity to improve their image and reputation.

For some, CSR has become a fashion as many multinational companies mention it. Simultaneously, it has become a business and a new profession. However, they argue that for most companies CSR still remains a "cosmetic treatment" (The Economist, 2005, p. 10). Although CSR actions can be based on good intentions, that does not mean that because companies are embracing CSR, that in practice they are really making a difference and being socially responsible. According to Jones and Nisbet (2011) companies select the causes and the social priorities they support from areas favorable to company strategy and market image. In most of the cases, they are identified with shareholder interests not even taking in to consideration problems that are
caused by business activities. So it is important to measure social performance choosing CSR measurement that comprises a large scale of actions in diverse areas, ensuring a realistic vision.

The measurement of social or CSR performance is one of the main difficulties and has not been consensual, which accounts for the existence of several methods. These use a variety of criteria ranging from expert evaluation to the analysis of reports and other documents or considerations of performance measures of pollution control. Each of these criteria is not exempt from criticism and limitations, as they are one-dimensional or do not reflect all aspects of CSR. To Balabanis, Phillips and Lyall (1998), expert evaluating depends on the available information. Analysis of reports can also be questioned because they are internally produced by the organizations, representing their one vision, and measures of pollution control are more representative to industry companies.

Several researches used Kinder, Lindenberg and Domini index or data base and reputation index of Fortune (e.g., Griffin & Mahon 1997; Waddock & Graves 1997; Stanwick & Stanwick 1998; McWilliams & Siegel 2000; Goss & Roberts 2011; Ghoul, Guedhami, Kwok & Mishra 2011; Harjoto & Jo 2011). The Kinder, Lindenberg and Domini index includes CSR information about community relations, employee’s relation, environment, product, considerations with women and minorities, military contracts, nuclear power and South Africa engagement (Griffin & Mahon 1997). This index was considered by Waddock and Graves (1997) as the best one available considering its diverse approach, although they recognize some limitations. Also, for Goss and Roberts (2011), and Harjoto and Jo (2011), Kinder, Lindenberg and Domini index is the most comprehensive and widely accepted on CSR research.

The Fortune index measures the ten greater companies in each activity sector according to eight attributes related with reputation, management quality, product quality, innovation, responsibilities with community and environment (Griffin & Mahon 1997). For Wood and Jones (1997) Fortune index is questionable because it is based on opinions of senior executives, directors and financial analysts, being management quality the most valorized attribute instead of attributes more related with social performance.

European researchers also recognize difficulties in the measurement of CSR. Szekeley and Knirsch (2005), conclude that many German companies adopted the guidelines of the Global Reporting Initiative (GRI), to measure their sustainability, according to economic, environmental and social goals, diverging on the aspects they chose to report. The authors consider GRI as a good start, and a tool to be improved, but not enough for the structural changes that they assumed companies need to undertake internally to become more sustainable and responsible.

Leite and Rebelo (2010) also found difficulties to measure CSR in the Portuguese context. The authors analyzed the implementation of CSR in some Portuguese companies, using five criteria, from certification norms to ratings and awards related with social responsibility. They concluded it was important to set CSR measurement models that could serve, not only to quantify, but also to select the best practices considering sustainability and stakeholders expectations.

In this research, in order to construct a CSR index, 247 items were considered, comprising the different dimensions of social responsibility suggested by the European Commission Green Paper on CRS of 2001, and the guidelines of the Global Reporting Initiative used by most of the Portuguese companies, encompassing and following this approach.

3. Methodology

This paper aims to compare the application of two methods in defining the levels of CSR from a CSR index, constructed for 19 of the 20 companies comprising the PSI-20, the Portuguese stock market index, the Euronext Lisbon. These are Altri, BCP, BES, BPI, Brisa, Cimpor, EDP, Galp, Jeronimo Martins (JM), Mota-Engil (MOTEN), Portucel, Portugal Telecom (PT), REN, Semapa, Sonae Industria (SOIN), Sonae, SonaeCom (SOCOM), Teixeira Duarte (TEIXDU), Zon. It was considered the time period, 2005 to 2009, in this research.

The 239 items analyzed to construct the CRS index form groups of variables that measure both dimensions (COM, 2001) of CSR, internal (116 items) and external (123 items). The internal dimension (STDI) includes the Responsible Management (15 items), Human Resources Management (36 items), Health and Safety at Work
(17 items), Business Ethics (18 items), and Environmental and Natural Resources Management (30 items). The external dimension (STDE) includes Local communities (29 items), Stakeholders (17 items), Human Rights (10 items), Environmental and Philanthropic Global Concerns (10 items), and Other CSR Instruments (57 items). For that, and considering each year of analysis, the contents of sustainability reports and financial reports of companies under research were analysed in order to assign a score (which will be 0 if the item is not observed, 0.5 if it is only partially observed or 1 whether it is observed) for measurement of each item of responsibility, since there are no quantifiable and objective social responsibility indicators.

After adding the scores obtained in the different items of each group of variables according to the methodology described above, we obtained the scores for each group of variables. To obtain the Index of Corporate Social Responsibility (ICSR), we proceeded to sum the scores in each group of variables considered in each of its dimensions. The entire procedure can be represented by the formula below.

\[
ICSR = \sum_{j=1}^{m} \sum_{i=1}^{n} x_{ij}
\]

Where:

- \( x_{ij} \) = scale item response \( i \) in category (group element) \( j \),
- \( m \) = number of items in each category of analysis, and
- \( n \) = number of categories.

In order to measure the dimensions’ score in each year, and for each company, under analysis, the total item (variable) was measured. Then, and for each company, the mean of variable scores for the five years under analysis was calculated, in order to achieve internal and external CSR index. Therefore, to identify the level of CSR, two methodologies based on five intervals of CSR were applied, one using the Cut-point method; the other considering a scale of 5 points (5 grades) with constant intervals. This scale was obtained using the Sturgess’ Rule for 19 observations. The categorization of companies in the CSR levels depends on the referred methodology to the definition of intervals.

4. Results and discussion

Applying the methodology described above, the following results were obtained. According to the results shown in figure 1, is possible to observe that all companies under analysis are more focus on internal dimension, as the averages are higher. The highest STDI index was observed in EDP company (70,5), followed by BES (65,5) and BCP (63,8). In the opposite side, the lowest STDI index, are found for companies Zon (14,6), Teixeira Duarte (21,1) and BPI (21,2). Analysing the STDE index, the highest index was achieved by EDP (47,7), BCP (47,4) and BES (46,8). Zon (8,5), Teixeira Duarte (11,7) and BPI (18,8) were the companies presenting the lowest index. It can be concluded that the companies that presented the highest STDI were the same that presented also the highest STDE Index as for the lowest index.

Analysing figure 1, it can be evidenced that BPI, Portucel, Zon and Teixeira Duarte were those that presented the shortest distance between STDI and STDE indexes, which may indicate that these companies give the same importance for both dimensions even though they have lowscores.

Figure 2 shows the companies that are above and below STDI and STDE index average. To construct this graph, the distance between the company’s STDI index and the STDI index average (48,6 points) was calculated and the same was carried out for the STDE index (average is 31,6 points). Each company is represented according to its distance to the average considering each CSR dimension. The STDI Index distance to its average (ADSTDI) is represented on the horizontal axis and the STDE index distance to its average (ADSTDE) on the vertical axis. In order to analyze this diagram, the companies positioned in the Quadrant I (ADSTDI and ADSTDE positive) have the “ideal” position, however its position can improved if it to increase the scores in both dimensions. In Quadrant II (ADSTDI negative and ADSTDE positive), the companies may improve its position increasing its scores in STDI index to achieve the “ideal” position. Those companies positioned in Quadrant III (ADSTDI and ADSTDE positive), have the “worst” position as they have to improve in both dimensions. Finally, in Quadrant IV (ADSTDI positive and ADSTDE negative), the companies may improve their position by increasing the scores in STDE index to achieve the “ideal” position.
According to these results, in figure 2, it was observed that Portucel may improve its position by increasing in the STDI scores in the future. Companies such as Altri, GALP and Jeronimo Martins can improve their position in the external dimension. Those positioned in Quadrant III are Zon, Teixeira Duarte, BPI, Sonae, Sonae Industria, Semapa and Mota-Engil, the negative distance to average STDI and STDE, indicates that they must improve both dimensions in order to reach higher CSR indexes. The other companies are already positioned in the “ideal” Quadrant.
Paula Fernandes et al.

In an effort to match a level of CSR for each company the two methodologies described in the previous section were used (one based on Cut-point method and other on constant ranges). Thus, for both methodologies five levels of CSR were fixed, corresponding to a Likert scale of five points. Those are: 1 - Very low CSR; 2 - Low CSR; 3 - Middling CSR; 4 - High CSR; 5 - Very high CSR. Table 1 shows the range for each CSR level regarding the methodologies in use.

By the total CSR index and according with the constant range methodology it is observed that there are 42,1% of companies classified with Middling CSR and the same percentage with Low CSR, as is shown in table 1. There were no companies classified in the highest levels. On the other hand, with Cut-point methodology, the companies were spread among all ranges. This last methodology seems to be more equitable and, therefore, less penalizing.

Table 1: Comparison of categorization of Portuguese companies of the PSI-20 in CSR level

<table>
<thead>
<tr>
<th>Level of CSR</th>
<th>Constant Range</th>
<th>Cut-point method</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Range</td>
<td>% Companies</td>
</tr>
<tr>
<td>Very Low CSR</td>
<td>&lt;= 42</td>
<td>15,8</td>
</tr>
<tr>
<td>Low CSR</td>
<td>[43 - 85]</td>
<td>42,1</td>
</tr>
<tr>
<td>Middling CSR</td>
<td>[85 - 128]</td>
<td>42,1</td>
</tr>
<tr>
<td>High CSR</td>
<td>[128 - 171]</td>
<td>-</td>
</tr>
<tr>
<td>Very High CSR</td>
<td>&gt;= 171</td>
<td>-</td>
</tr>
</tbody>
</table>

Consequently, it can be said that the majority of the companies under analysis, denoted sensibility to a responsible practice and its accountability. Using the cut-point methodology, 63,3% of Portuguese companies of the PSI-20 may be classified as middling social responsible or more while using the constant range only 42% could be classified as so. In this way, the use of one methodology or another may influence the mapping of the companies in each level of CSR due to differences in interval range, that is, for instance, to classify the company in the very low CSR range, the company should present a score lower or equal to 42 (a CSR index lower or equal than 42) in the constant range and 59,9 in the cut point methodology. This methodology, as can be shown in table 1, spreads the companies among intervals and the distribution is less penalizing and does not concentrate the companies in few intervals.

5. Conclusion

The main objective of this paper was to compare the application of two methods in defining the levels of CSR from a CSR index, constructed for 19 of the 20 companies comprising the PSI-20, the Portuguese stock market index, the Euronext Lisbon. One of the methodologies defines five intervals of CSR using the Cut-point method; the other considers a scale of 5 points (5 grades) with constant intervals. These methodologies to the definition of intervals categorized the companies in the CSR levels differently. It was found that the Portuguese companies which were analyzed denote a growing sensitivity in the adhesion and dissemination of their social responsibility practices, investing in a more specific and detailed disclosure and, in particular, complying with the guidelines of the Global Reporting Initiative.

These different methodologies categorized the companies in the CSR levels differently. The methodology of Cut-point yielded greater discrimination in classification practices of corporate social responsibility in the Portuguese context. Nevertheless, it was found that the Portuguese companies which were analyzed, in both methodologies, denote a growing sensitivity in the adhesion and dissemination of their social responsibility practices, investing in a more specific and detailed disclosure and, in particular, complying with the guidelines of the Global Reporting Initiative.

This paper presents the development of a new model for measuring CSR which is a starting point for building a European index evaluation of CSR, according to the dimensions defined by the European Commission. The model was tested in the Portuguese context. Two different methodologies were analyzed and their results compared. In a future work, we intend to expand the application of the index to an international level with particular emphasis on the European context.

Some limitation should be taken into consideration. In the methodology of calculation of ICSR followed in this paper, the different groups of variables assume different weights in the index since the number of items in each group is considered sometimes substantially different. If we assume that each group and each item has the same importance, we must weigh each group by the number of groups considered in each dimension and
the number of items in each group. We will review this issue and its impact in terms of the relative positioning of the companies in future work.

We are aware that the construction of indices and rankings will always be subject to some criticism and objections due to the multiplicity of approaches and tool analysis. However, the possibility of making them publicly available supply instruments that must be taken into consideration and discussed. The score on the ICSR should preferably be addressed by the company with a view to continuous improvement, regardless of the alternative analysis tools. More important than analyzing the absolute positioning of the company in terms of ICSR is that the index will enable change practices in order to obtain a better position in future editions.

References


