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National CSR and institutional Conditions:
An exploratory study

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Εθνική Εταιρική Κοινωνική Ευθύνη και θεσμικές συνθήκες: μια διερευνητική μελέτη

Αθανάσιος Χύμης και Αντώνης Σκουλούδης

Περίληψη

Η παρούσα εργασία επιχειρεί να διερευνήσει τους παράγοντες, κυρίως θεσμικούς, που επιδρούν στο βαθμό εκδηλώσεως εταιρικής κοινωνικής ευθύνης (ΕΚΕ) σε επίπεδο χώρας. Η συμβολή της εργασίας στην βιβλιογραφία είναι διπλή. Πρώτον χτίζει επί της πρότερης εργασίας της Gjølberg (2009a) η οποία αρχικά ανέπτυξε έναν εθνικό δείκτη ΕΚΕ στηριζόμενη σε 9 διεθνείς υποδείκτες ΕΚΕ για 20 χώρες. Εμείς επεκτείνουμε τον δείκτη αυτόν να περικλείσει 86 χώρες και τον κατασκευάζουμε με βάση 16 διεθνείς υποδείκτες. Δεύτερον και κυριότερον, προχωρούμε ένα βήμα πέραν των απλών συγκρίσεων μεταξύ χωρών και προσπαθούμε να ρίξουμε φως στους παράγοντες οι οποίοι επηρεάζουν τον εθνικό αυτό δείκτη ΕΚΕ. Στηριζόμαστε στην θεωρητική εργασία του Campbell (2007) ο οποίος προτείνει συγκεκριμένους παράγοντες τους οποίους εξετάζουμε εμπειρικά. Αυτοί είναι α) το μακροοικονομικό περιβάλλον, β) οι συνθήκες συναγωνισμού, γ) οι δημόσιοι θεσμοί, δ) οι ιδιωτικοί θεσμοί και ε) η δράση των πολιτών. Τέλος, προβαίνουμε σε κάποιες συγκρίσεις όσον αφορά την επίδραση των παραγόντων και πώς αυτή διαφοροποιείται μεταξύ των ομάδων χωρών.

National CSR and institutional conditions: An exploratory study

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Abstract

Corporate social responsibility (CSR) footprints in terms of relevant policies, schemes and practices are evident among all regions, but the level of uptake and diffusion differs, as countries differ considerably in terms of their levels of institutional efficiency and efficacy. With this in mind, the purpose of this study is twofold. First, building on the work of Gjølberg (2009a), a national-level corporate responsibility index is devised for 86 countries around the world. The index is based on sixteen international CSR standards, initiatives and ratings reflecting the level of penetration of responsible business conduct among national business systems. Second, using the index as a comprehensive proxy of national CSR status, we attempt to shed light on the underlying relationship between CSR implementation and institutional conditions proposed by Campbell (2007). Bridging Campbell's seminal normative argumentation with Gjølberg's empirical technique offers fruitful findings and ultimately sets forth new perspectives for future research on the national specificity of CSR.

Keywords: Corporate Social Responsibility, National Business Systems, Institutions.

JEL: M14, E02, O57.

Introduction

Corporate social responsibility (CSR) literature has expanded over the last decades and the concept has gained increasing attention at a global level (Wood, 2010). The vast literature pertains mostly to firm-level analysis within a country and there is limited research at the inter-country level. Why firms in some countries are more socially responsible than firms in other countries? In other words, what are the factors that affect CSR across countries?

Our study is an attempt to answer this question and partially fill an existing gap in the CSR literature. Campbell's (2007) seminal paper sets forth a series of propositions on why firms engage in socially responsible behavior. We empirically examine a number of these propositions which are grounded on institutional theory and operationalize them at a national level.

In order to do so we build on previous work on national CSR measurement. Relying on Gjølberg (2009a), we extend her national CSR index (henceforth NCSRI) to include more countries and create a more comprehensive index incorporating more international CSR 'criteria'.

This way we also contribute to the developing literature of cross-country CSR comparisons. Constructing a general CSR index at a national level can be a cumbersome task (Gjølberg, 2009a; 2009b) due to the various institutional and cultural characteristics across nations, which cannot be easily measured and accounted for in such an index. Recent research has partly overcome this difficulty and offers national CSR index based on a series of global indices that are internationally accepted such as the Dow Jones Sustainability Index, the FTSE4Good Index, the Global Report Initiative, to mention just a few. Most of this research has focused on developed economies (Europe, North America, Oceania and a few well developed Asian countries) thus referring to not more than 25-30 countries. We take this research a step further by constructing a national CSR index that includes 86 countries from all over the world for a comprehensive cross-country comparison.

More importantly, once the national index is constructed we examine its relationship with fundamental country-level variables: macroeconomic stability, competition, private institutions, public institutions and civic activism. In this way we test five major propositions as developed by Campbell (2007). Taking into consideration data availability for various institutional conditions as well as the limitations of the NCSRI construct, this research paves the ground for further in depth analysis of the institutional framework that shapes national CSR performance.

The rest of the paper develops as follows: The first section outlines Campbell's theory and propositions. In the next section the NCSRI construct is described. The empirical findings are summarized in the third section. Finally, results are discussed in the last sections along with perspectives for further research and concluding remarks.

Conditions affecting CSR

Since the Friedman's (1970) aphorism "the social responsibility of business is to increase its profits", CSR literature has mostly focused on the relation between social and financial performance (Margolis *et al*, 2007). This was mainly an attempt to justify social responsibility on the grounds of the profit-maximizing firm. Although this strand of the CSR literature yielded numerous studies as well as contradicting perspectives and aspects of CSR it was not conclusive regarding the social performance-financial performance link (Margolis *et al*, 2007), partially due to lack of a comprehensive CSR theory and definition (van der Laan *et al*., 2008).

In his seminal paper, Campbell (2007) addresses CSR theory though the lens of institutional theory for CSR and formulates eight propositions identifying specific economic and institutional conditions that affect firms' propensity to act in socially responsible ways. Based on previous literature indicating decreased social performance for firms which do not do well financially he argues that "an unhealthy economic environment" will distract firms from socially responsible behavior. Campbell goes a step further explaining that the economic environment at the firm level depends on the national macro-economic environment the firm operates in (2007: 952).

Following the classical economic rationale of competition that increases incentives for differentiation and decreases profits (*i.e.*: financial performance and, consequently, slack resources) Campbell predicts a curvilinear relationship between CSR and competition. However, his focus is within a country. In this study we take Campbell's proposition and test it across countries. Under this cross-national perspective we expect firms in countries where competition works more effectively to be more socially responsible. The reason for this is that a more competitive market is a less opaque, more transparent, with better flow of information and consumer awareness (Friedman, 1962; van de Ven & Jeurissen, 2005; WEF, 2013).

The rest six propositions by Campbell are fully based on institutional grounds. "Strong and well-enforced state regulations" (*i.e.*: public institutions) are expected to promote CSR (2007: 955). Indeed, a well-enforced rule of law which protects property rights provides a stable and secure economic environment in which firms can thrive (WEF, 2013) and be willing to behave in a socially responsible manner as a way to reciprocate the positive externalities they receive from a smoothly functioned social system. "Industrial self-regulation" (*i.e.*: private institutions) is also expected to positively affect CSR (Campbell, 2007: 956). Voluntary self-regulation has been shown to deter government interference and excessive regulation that may harm firms (Campbell, 2007; Wotruba, 1997).

The fifth proposition suggests that CSR will be higher in an environment of active "private, independent organizations, including nongovernmental organizations (NGO's), social movement organizations, institutional investors, and the press," which monitor firms' activities and induce behavioral change (2007: 958). It is true that in the era of globalization and of transnational companies (TNC), the aforementioned actors can play significant role in shaping firms' behavior. As Porter & Kramer (2003: 43, quoted in Campbell, p. 957) note, NGO's such as the International Corporate Governance Network formed by major institutional investors support the promotion of improved corporate governance standards especially to developing countries.

Campbell continues stating three more propositions, which we state here for reasons of completeness of Campbell's work presentation; however we do not empirically test them due to the difficulty of variable operationalization and measurement. His sixth proposition states that "corporations will be more likely to act in socially responsible ways if they operate in an environment where normative calls for such behavior are institutionalized in, for example, important business publications, business school curricula, and other educational venues in which corporate managers participate" (p. 959). He also proposes that firms will engage in CSR "if they belong to trade or employer associations, but only if these associations are organized in ways that promote socially responsible behavior" (p. 960). Finally he argues that CSR will be enhanced if firms "are engaged in institutionalized dialogue with unions, employees, community groups, investors, and other stakeholders" (p. 962).

A National Corporate Social Responsibility Index (NCSRI)

While there is extensive national-level case study literature on the specifics behind CSR, literature on the composition of a country-level CSR index that would enable meaningful cross-country comparisons is scarce (Skouloudis & Evangelinos, 2012). Prominent pieces along this line are Ringov & Zollo (2007), Gjølberg (2009a, b), Jackson & Apostolakou (2010) and Ioannou & Serafeim (2012).

Gjølberg (2009a, b) devised a composite national CSR index which included 9 international indicators-variables, namely: Dow Jones Sustainability Index, FTSE4Good, Global 100, UN Global Compact, World Business Council for Sustainable Development (WBCSD), Global Report Initiative (GRI), KPMG International Survey of CSR Reporting, SustainAbility's list of the 100 best sustainability reports, and ISO 14001. The index included 20 developed countries which she then compares trying to address and explain findings and differences among countries.

Building on her work we extend the number of countries and create a NCSRI using sixteen international CSR 'variables'. Specifically, the composite NCSRI was constructed utilizing country-level data from a series of 16 international CSR initiatives, environmental and social standards, 'best-in-class' rankings and ethical investment stock exchange indices. The data contained by these indicators (described in Appendix, Table A) are organizations, subscribed or formally endorsing each one of the selected CSR ’variables’.

The year 2012 was chosen as the reference period for data capture and a ‘cut-off value’ of inclusion in at least four CSR ‘sub-indices’ was employed (*i.e.*: countries whose business sector had presence in less than four initiatives and ratings were excluded from the analysis). This resulted in 86 countries spanning from all geographical regions of the world offering an encompassing outlook of CSR penetration among nations.

For each one of these variables, the sum of organizations from every country is divided by the total sum of companies of all countries included in the specific initiative, standard or rating. These ratios are normalized and corrected for GDP PPP rates, i.e. the GDP of every country is divided by the sum of GDPs of all 86 countries. Next, the countries’ ratios are transformed using the natural logarithm of scores, in order to avoid skewed results and preserve variation among values. In the final step of this calculation method, the aggregation of scores from every variable is performed in order to derive a national-level index.

Figure 1: NCSRI formula: Adapted from Gjølberg (2009a)

$$\sum_{i=1}^{16} \frac{\dfrac{\text{Number of companies in indicator Xi from country A}}{\text{Number of companies in indicator Xi from all 86 countries}}}{\dfrac{\text{GDP country A}}{\text{Total GDP all 86 countries}}} = \begin{array}{c}\text{Ratio of country A's over-/under-}\\ \text{representation on all 16 initiatives X}\end{array}$$

As Gjølberg (2009a) points out “this aggregation from the company level to the national level is not an inverse ecological fallacy” (p.14), since, under this methodological formula, a zero score represents a perfect proportion of companies active in CSR, relative to the size of the economy, positive scores equal over-representation, while negative scores equal under-representation (p.15).

Our results are in line with Gjølberg’s findings. Switzerland tops the assessment, followed by three Nordic countries (Sweden, Finland and Denmark). In total, twelve countries achieve positive scores; out of which only two pertain to the Eastern Asia and Pacific region (Australia and Singapore) and the rest are European countries. Japan and Canada receive an approximately zero score whereas Germany and the USA are assigned negative scores. Saudi Arabia has the lowest score (-37.06) in the assessment while the sample’s average score is -18.32. The full list of countries is presented in Appendix, Table B).

Hypotheses, Data and Methods

Appendix (Table C) illustrates the five propositions as stated by Campbell (2007), our hypotheses derived from these propositions and the index we use in order to measure the variable for each hypothesis. As we move from Campbell’s firm oriented within-country environment some refinements of his propositions are necessary. Consequently, Campbell's partial focus of the first proposition is the financial performance of the firm (*i.e.*: microeconomic level). In our case as we examine country-level (*i.e.*: macroeconomic) variables our focus shifts to the more macro- than micro-environment. Accordingly, our hypothesis focuses on the country-level macro-economic variable which we measure using the 'macroeconomic environment' pillar of the Global Competitiveness Index (GCI) published yearly by the World Economic Forum (WEF).

Campbell predicts a curvilinear relationship between competition and CSR across industries within a country. This is because Campbell defines competition within the limits of the country, that is, competition in various industries. Consequently, as competition increases there is less resources available for the firm to devote to CSR. In our case competition is seen at the broader inter-country level. This is closer to country's competitiveness and many authors support the argument that more competitiveness increases CSR as the market becomes more transparent and exposed to media, NGO's and several stakeholder's groups (Porter & Cramer, 2006; Skouloudis *et al* 2013). We measure competition using the competition pillar of the GCI.

The third hypothesis directly reflects Campbell's third proposition and relates NCSR with effective and enforced public institutions measured by GCI's public institutions pillar.

The fourth hypothesis is also directly derived from Campbell's fourth proposition and the proxy we use to quantify "well-organized and effective industrial self-regulation" is GCI's private institutions variables 1.18-1.21 that capture the industry's commitment for efficient corporate governance.

Finally, our fifth hypothesis operationalizes Campbell's active "private, independent organizations, including NGOs, social movement organizations, institutional investors, and the press" through the Civic Activism index, measured by the International Institute of Social Studies (ISS)[1.]

As mentioned in the previous section collected data refer to the year 2012 across 86 countries and tested (by utilizing Pearson's correlation and simple regression) for linear associations for each of the five variables separately on the NCSRI to verify or reject each hypothesis.

Results

Table 1 shows the results of Pearson's correlation coefficient between the NCSRI and each of the independent variables described in the previous section that operationalizes each hypothesis. We examined five variables that might influence

[1] For more information on this index we refer the reader to: http://www.indsocdev.org/data-access.html

NCSR. At a first glance we see that the results indicate no association at all between the NCSRI and the variable of macroeconomic stability. Moderate positive associations are shown between NCSR and the variables of competition, private and public institutions, whereas a high positive correlation (Pearson's r=0.841, p-value<0.01) is observed between the NCSRI and civic activism.

Table 1. Pearson's correlation coefficients between NCSRI and the macroeconomic/institutional variables

	Macroeconomic Stability	Competition	Private Institutions	Public Institutions	Civic Activism
NCSRI	n.s.	**.432****	**.518****	**.590****	**.841****

(**) 0.01 level significance (2-tailed).
(*) 0.05 level significance (2-tailed).
Pearson's coefficient >0.7 demonstrates strong correlation, between 0.4 and 0.7 moderate correlation and below 0.4 weak correlation.

This first test allows us to partially accept hypotheses H2-H4 while H1 is rejected by the findings and H5 is verified with certainty. A linear regression analysis was conducted in order to further examine the aforementioned relationships. Specifically, linear association between NCSRI and the 5 selected variables was investigated through the fit of simple linear regression models, where the variable of NCSRI is assigned as the dependent variable, and examining model fit via goodness-of-fit statistics (R^2).

Figures 2 to 6 present scatter plots between the values of each pair of variables, where each pair of (x,y) values are labeled by country. Alongside, we show the predicted line of simple linear regression accompanied by the 95% confidence intervals for the average NCSRI. Concentration of the distinct data points in the graph, labeled by country, near the regression line is indicative of the importance of the linear association between the examined pair of variables. At the right of each scatter plot, we also show the R^2 value. R^2 values near 1 are indicative of strong linear association between the two variables, whereas values near zero indicate the opposite. The magnitude of the concentration of pairs of values for each country is dependent on the size of markers in the plots.

Overall, model fitting of NCSRI as the response variable has shown large deviations, ranging from poor fit to adequate fit. In particular, we find no association at all between NCSRI and the variable of macroeconomic stability (R^2=0.013) (Figure 2). Regarding the rest of the independent variables, we observe relatively poor fit between NCSRI and competition (R^2=0.187) (Figure 3), private institutions (R^2=0.268) (Figure 4), a relatively better fit for public institutions (R^2=0.348) (Figure 5) and a very good fit for civic activism (R^2=0.707) (Figure 6). In all examined cases there is a positive association between NCSRI and the rest of the variables.

Figure 2. Scatter plot and regression fit between NCSRI and macroeconomic stability

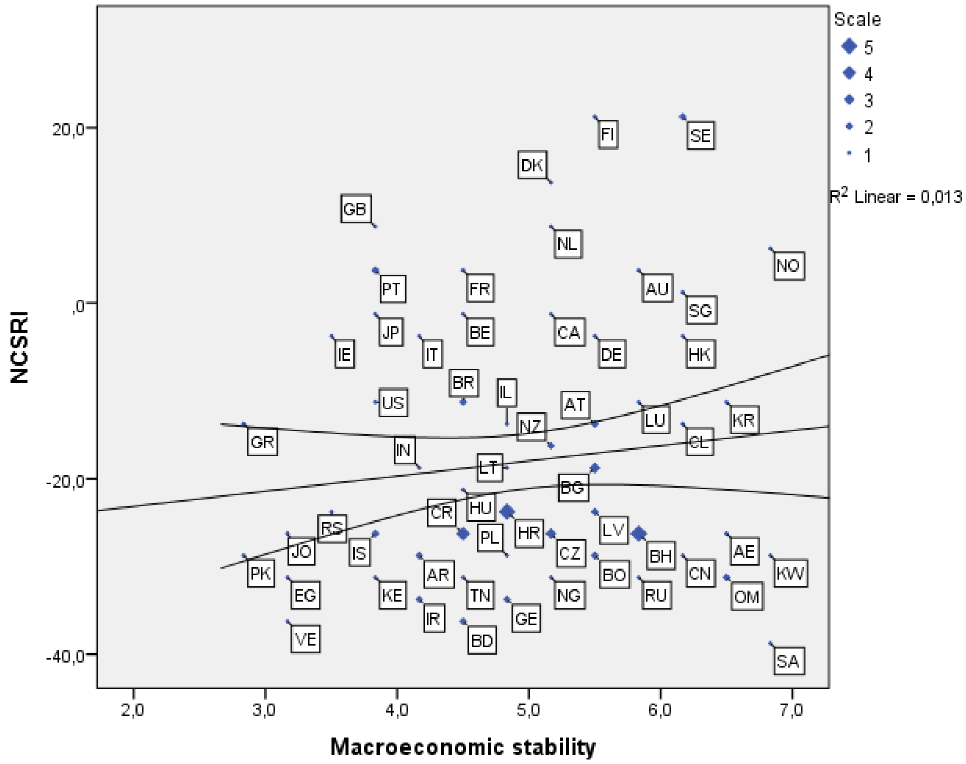


Figure 3. Scatter plot and regression fit between NCSRI and competition

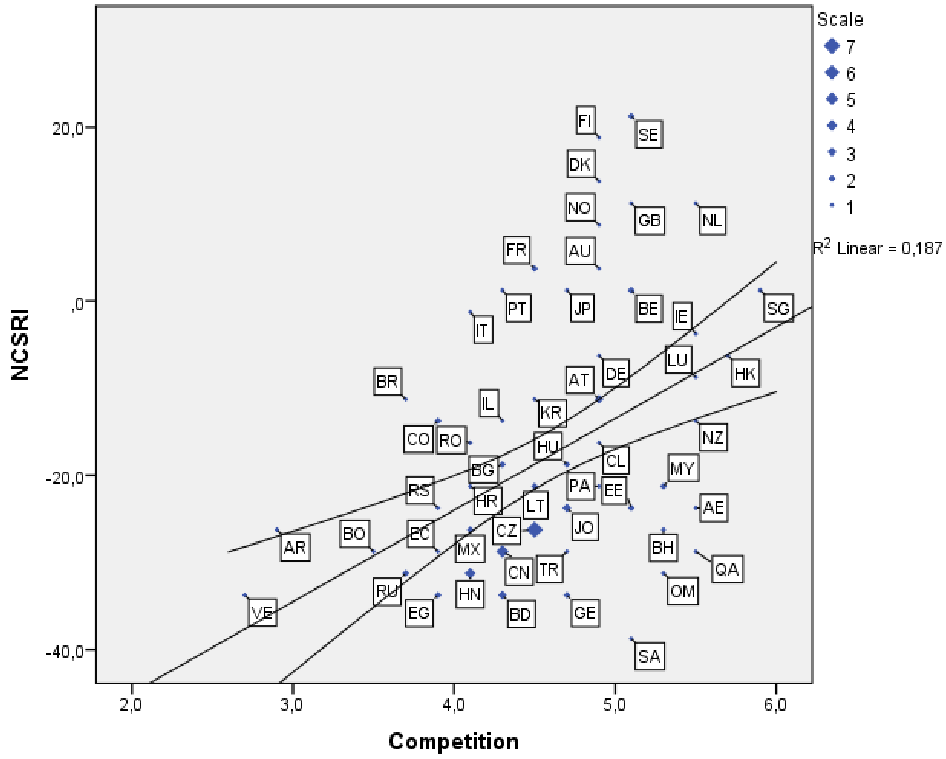


Figure 4. Scatter plot and regression fit between NCSRI and private institutions

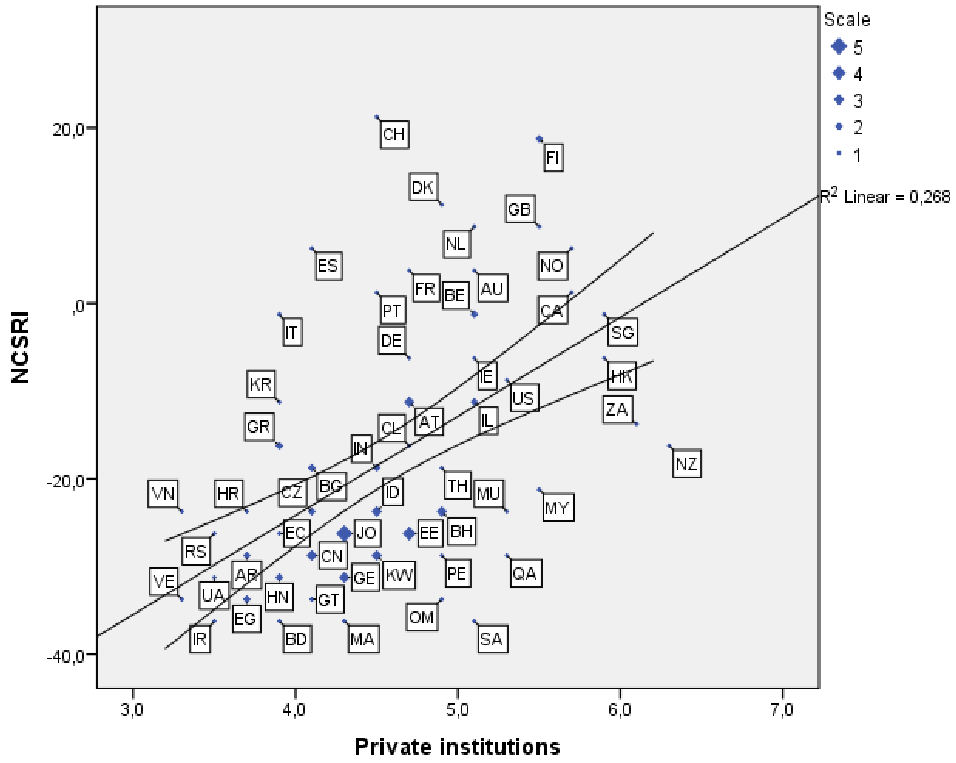


Figure 5. Scatter plot and regression fit between NCSRI and public institutions

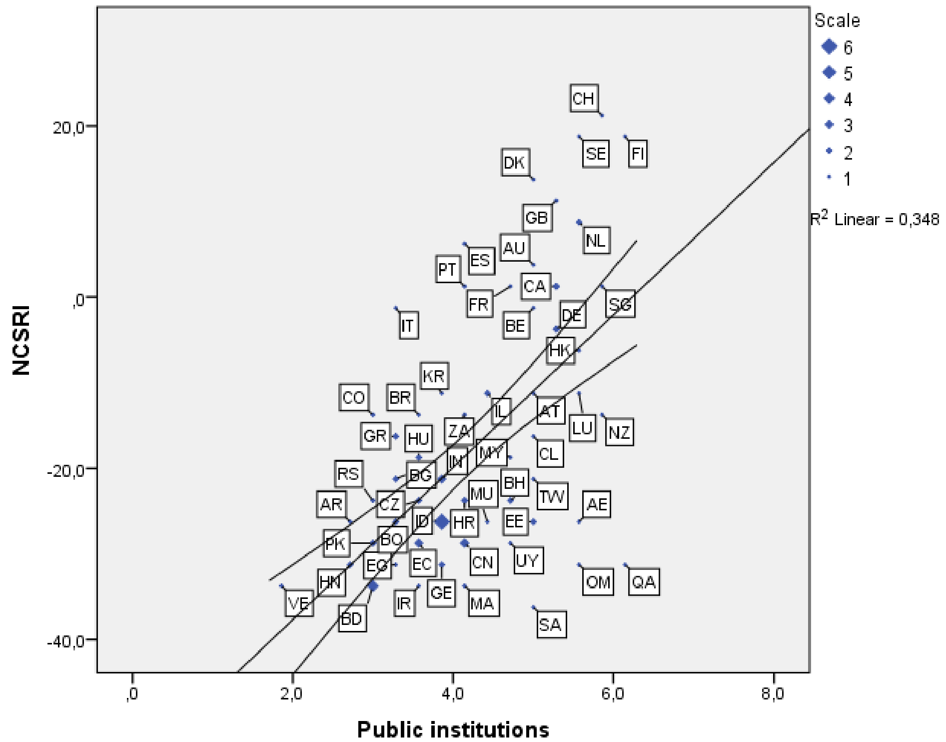
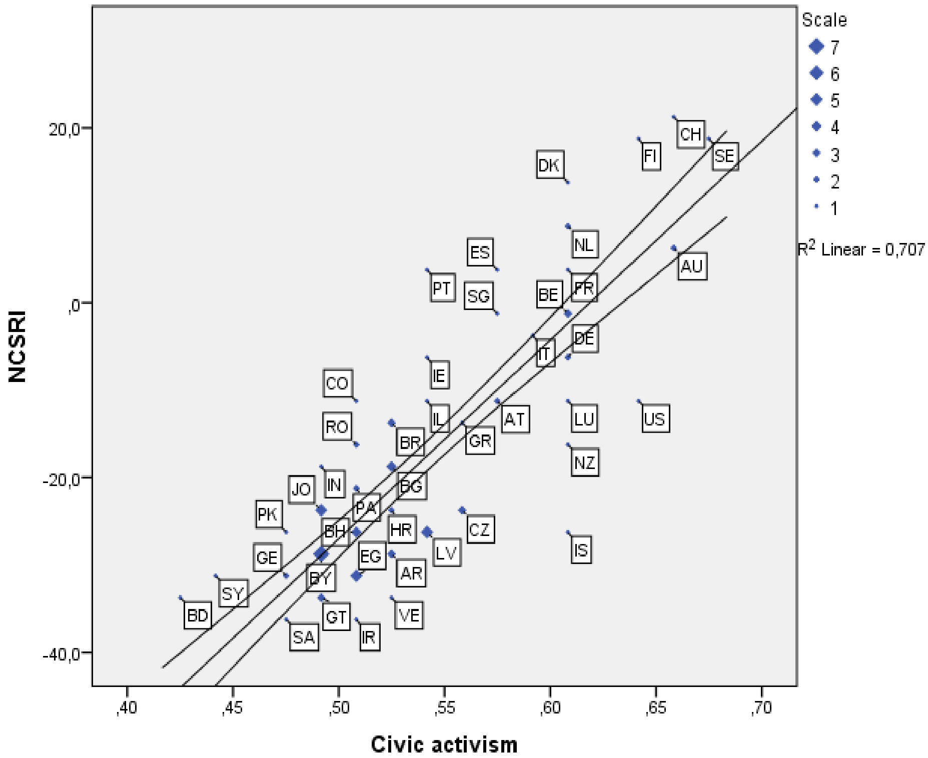


Figure 6. Scatter plot and regression fit between NCSRI and civic activism



In order to provide a more nuanced interpretation of the results on the associations between NCSRI and the five variables, we re-run the analysis of the previous section, this time by categorizing the data according to certain groups of countries. The results will assist in providing information on the association between the variables of interest for each distinct group of countries.

Table 2 shows the summary results on Pearson's correlation coefficients for the association between NCSRI and each of the five independent variables for each one of the selected categorizations (country groups). In the last line of the Table we include the correlation coefficients when using the complete data for comparisons (same as Table 1).

Indeed we observe some variation regarding the correlation between the various groups on one hand and the complete data on the other as well as among groups. However, it is noticeable that again there is no association between NCSRI and the variable of macroeconomic stability for all the examined groups of countries. Concerning the various group categorizations, the largest deviations from the complete data are observed for the groups of "lower-income economies", the "Arab states" and the "CIS" groups of countries, where there are no associations at all. "Asia and Pacific" countries present in general the higher associations among the various groups, followed by the "European" and "America" countries. Amongst the other findings it is noticeable the high correlation between NCSRI and the variable of private institutions for the African countries (Pearson's $r=0.924$, $p\text{-value}<0.01$), a characteristic also observed for America countries ($r=0.869$, $p\text{-value}<0.01$).

Table 2. Pearson's correlation coefficients between NCSRI and the macroeconomic / institutional variables for the various categorizations

Categorization	Macroeconomic stability	Competition	Private Institutions	Public Institutions	Civic Activism
Developing countries	n.s.	n.s.	**.328***	n.s.	**.380****
Developed countries	n.s.	n.s.	n.s.	**.551****	**.683****
Global south	n.s.	n.s.	**.433****	n.s.	**.512****
Global north	n.s.	**.425****	**.480****	**.638****	**.749****
OECD high income countries	n.s.	n.s.	n.s.	**.546****	**.676****
World Bank high income economies	n.s.	n.s.	**.335***	**.402****	**.801****
World Bank upper-middle income economies	n.s.	n.s.	**.583****	n.s.	n.s.
World Bank lower-low income economies	n.s.	n.s.	n.s.	n.s.	n.s.
Africa	n.s.	n.s.	**.924****	n.s.	n.s.
Asia	n.s.	n.s.	**.532****	n.s.	**.822****
Europe	n.s.	**.467****	**.575****	**.630****	**.705****
Latin America	n.s.	n.s.	**.750****	n.s.	n.s.
Asia and pacific	n.s.	**.630****	**.626****	**.736****	**.878****
Arab states	n.s.	n.s.	n.s.	n.s.	n.s.
CIS	n.s.	n.s.	n.s.	n.s.	n.s.
America	n.s.	**.504***	**.869****	**.628****	**.627****
All countries	n.s.	**.432****	**.518****	**.590****	**.841****

(**) Correlation is significant at the 0.01 level (2-tailed).
(*) Correlation is significant at the 0.05 level (2-tailed).

Discussion

The study's results offer fruitful perspectives for future research. A first comment is that in general there is partial support to Campell's five propositions as operationalized in this study. It is very interesting that civic activism appears to be the most important condition affecting CSR. This should not be a surprise. After all, a central part of the CSR literature argues that CSR by definition is a voluntary activity spurred by various stakeholders (Freeman, 1984). Citizens' movements, the media, NGO's and many other civic groups are critical drivers of CSR, especially for large corporations which are under continuous scrutiny from environmental and social groups acting as watchdogs (Gjølberg, 2009a; b).

A relatively unexpected result is that macroeconomic stability does not seem to influence CSR. One possible explanation may be that our sample contains data only for one year, the year 2012. This was a year of economic recession mostly in developed countries which are the ones with higher CSR involvement. The macroeconomic environment, as measured by the WEF, includes indices pertaining to debt, and country credit ratings among others. As 2012 was a turbulent year for many European countries, future research that focuses on longitudinal data is necessary to bolster or challenge this finding. A study that would differentiate between the period before and after the economic crisis would probably add important insights towards this direction.

It is interesting that some countries' groups do not show any association with any of the five variables. These are the lower-low income countries and the Arab states. On the other hand we observe a common pattern between Europe, Asia-Pacific and America. The common pattern is that these country groups demonstrate an association between NCSRI and the four variables (competition, public/private institutions and civic activism) suggesting a cultural element of CSR. Many authors have argued that culture plays important and significant role in shaping organizational behavior (Hofstede, 1980). Specifically in the CSR literature, culture is an important variable (Gjølberg, 2009a; b) and it may be this variable that hinders the development of a robust national CSR index.

American countries (i.e. those of North America), Europe and many of the Asia-Pacific countries are among the economically well-developed and market-oriented countries. For these groups the theory of CSR and its conditions is supported by the findings. We need to note that the whole CSR literature emanated by the market-oriented capitalistic-type business systems of America and Europe. Consequently, the whole CSR construct as well as the institutional theory and explanatory conditions behind this construct are in line with this type of economies. On the other hand, in lower-low income countries or the Arab states public institutions are weak and/or weakly enforced. As Williamson (2000) has argued institutions need time to establish. Moreover, in our analysis some of these country groups refer to a small number of countries, and/or which share many similarities. Thus, such lack of significant variability in some of the variables influences the assessment's results.

We see a high association between private institutions and NCSRI in Africa and to a lesser degree in Latin America. A possible explanation for this may be that given the lack of strong public institution in large number of African countries (and to some extent to Latin America), it is private institutions that came to fill the vacuum (Luo & Chung, 2013). This is in accordance with the bipolar of explicit vs. implicit CSR suggested by Matten and Moon (2008). As Matten & Moon indicate, in countries where CSR is embedded in the law and state regulation (e.g. among European countries) CSR becomes more implicit. Contrary, in countries such as the US where the law does not highly regulate business, firms have more leeway to explicitly engage in CSR. Africa is a case where the rule of law is relatively weak. Accordingly, private institutions partially fill the gap. Moreover, NCSRI captures mostly large firms which are included in the 16 CSR variables. This means that firms in these indicators have to endorse a common set of self-regulation rules in order to attain international standards. Moreover, as Husted and Allen (2006) and Jamali (2010) have demonstrated, multinational firms in developing countries can potentially have a positive effect on CSR diffusion in local firms acting as moral agents and primary movers in the endorsement of industrial self-regulation.

Finally, it is interesting that private institutions in America have stronger association with NCSRI than in Europe. This again resonates with Matten & Moon (2008) previously referred to, as it shows that explicit CSR (higher NCSRI) is more associated with private institutions in countries where the market is less heavily regulated by the state. We should point out that the two aforementioned cases (Africa -Latin America and North America vs. Europe) are completely different. In the first case there is weak enforcement of public institutions while in the second case there is a relatively strong public institutional environment. However, regulations in Europe are extended in the area of CSR whereas in the US it is left for the firms to decide and act accordingly.

Conclusions

This study attempts to bridge two strands of the CSR literature: the quantitative assessment of national CSR engagement and theoretical perspectives on institutional conditions as factors affecting responsible business behavior. In this respect, we construct a national-level index of CSR and we empirically test five propositions set forth by Campbell (2007). Our results offer partial support to the hypotheses. National-level CSR seems to be slightly affected by the level of competition in the country, somewhat affected by the strength of public institutions and the existence of private institutions, and much affected by the degree of civic activism.

The findings, far from being conclusive, provide a fertile ground for further in depth investigation. The limitations of this study also offer opportunities for further research. We recognize three major limitations. First, our analysis is based on data for only one year. Many –mostly developed countries– have not yet overcome the economic crisis that may significantly affect their macroeconomic environment as well as their CSR involvement. Second, the proxies used in order to measure the variables may not fully reflect Campbell’s propositions and leave room for more comprehensive data and proxies. The ones we used are not the only available and other scholars could use different proxies with probably better fit. Third, the technique we used is prone to significant improvements. Specifically, it may be useful to break the NCSRI in more than one index including fewer indicators and/or including a time lag variable (some institutional conditions may have a lagged effect of a year or more after their implementation).

Further research is definitely needed in order not only to amend the aforementioned limitations but also to explore the other propositions set forth by Campbell, refine them and adjust them to the international setting. Moreover, the NCSRI could be decomposed in several sub-indices including different CSR indicators taking into consideration country groups and addressing and measuring cultural differences. Gjolberg (2009a) for example makes a separation between ‘soft’ and ‘hard’ CSR indicators in conjunction to inclusion requirements. It would be valuable if such separation extends to more countries with diverse institutional environments. This study demonstrates that research on the institutional factors affecting CSR is a field that needs further investigation with the use of robust measures of qualitative variables, better proxies to reflect the institutional domains and refined statistical techniques.

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Appendix

Table A: The initiatives, standards and ratings included in the assessment for devising the national corporate social responsibility index

CSR indicator	Description and operationalization
ISO 14001	ISO 14001 is an environmental management system standard developed by the by the International Organization for Standardization (ISO) which maps out a framework that an organization can follow to set up an effective environmental management system. It can be used by any organization regardless of its activity or sector. It can provide assurance to company management, employees as well as external stakeholders that environmental impact is being measured and improved. The indicator refers to the total number of organizations per country certified to the standard.
OHSAS 18001	OHSAS 18001 is an occupational health and safety management system standard developed by the Occupational Health and Safety Advisory Services (OHSAS) Project Group. It is intended to help organizations to control occupational health and safety risks. It was developed in response to widespread demand for a recognized standard against which health and safety performance can be assessed and certified. The indicator refers to the total number of organizations per country certified to the standard.
SA8000	The SA8000 standard is an auditable certification standard for decent workplaces developed by the Social Accountability International (SAI). It reflects a management systems approach by setting out policies and procedures that protect the basic human rights of employees and socially acceptable practices in the workplace are continuously maintained. The indicator refers to the total number of facilities per country certified to the standard.
Global Reporting Initiative Guidelines	The Global Reporting Initiative Guidelines offer a set of reporting principles, standard disclosures and an implementation manual for preparing sustainability reports by organizations, regardless of their size, sector or location. The Guidelines also offer an international reference for all those interested in the disclosure of governance approach and of the environmental, social and economic performance and impacts of organizations. The indicator refers to the total number of sustainability reports published in the year of reference and registered to GRI's Disclosure Database.
Global Compact Principles	The Global Compact, developed by the United Nations, is a strategic policy initiative inviting companies to embrace, support and enact, within their sphere of influence, a set of ten universally-accepted principles pertaining to human rights protection, labour standards, benign environmental management and anti-corruption measures. The indicator refers to the total number of companies per country which are formally endorsing the initiative.
World Business Council for Sustainable Development	The World Business Council for Sustainable Development (WBCSD) is a global association of companies that aims to promote strategic issues linked to sustainable development and corporate responsibility. It offers a platform for firms to share knowledge, experience and best practices, to advocate the business positions on such issues among various forums, in cooperation with governmental bodies, NGOs and intergovernmental organizations. The indicator refers to the number of companies per country which are members of WBCSD.
Carbon Disclosure Project	Carbon Disclosure Project (CDP) is an international, non-profit organization that works in cooperation with market forces in order to motivate companies to measure, manage and disclose vital environmental information with respect to their greenhouse gas emissions and ultimately to take action in reducing them. The indicator refers to the number of companies per country included in the Global 500 Climate Change Report 2012 which have responded to CDP's questionnaire and provided relevant information.

Greenhouse Gas Protocol	The Greenhouse Gas Protocol (GHG Protocol) is an accounting tool for quantifying and managing greenhouse gas emissions with the overall aim of contributing to credible and effective programs for tackling climate change. It offers the accounting framework for nearly every GHG standard and program in the world as well as hundreds of GHG inventories prepared by individual companies. The indicator refers to the corporate users of the GHG Protocol per country.
KPMG Int. Survey of Corporate Resp. Reporting	KPMG'S International Survey of Corporate Responsibility Reporting is a detailed analysis of corporate nonfinancial reporting and includes a descriptive assessment of the current status of the CSR/sustainability disclosure practices among the 100 largest companies in selected countries (N100). The indicator refers to the number of N100 companies per country that report on corporate responsibility issues.
Ethibel Sutainability Index Excellence Global	The Ethibel Sustainability Index (ESI) Excellence Global contains a variable number of shares, collects the best-in-class companies with respect to CSR/sustainability across sectors and regions in Europe, North America and Asia Pacific. It is a free-float weighted index, designed to approximate the sector weights on the S&P Global 1200. The indicator refers to the constituents of the ESI Excellence Global.
FTSE4Good Global Index	The FTSE4Good Global Index, created by FTSE International and Ethical Research Services (EIRIS) has been designed to objectively measure the performance of companies around the world that meet globally recognised corporate responsibility standards. It is one of the world's premier indices for socially responsible investing. The indicator refers to the constituents of the FTSE4Good Global.
Dow Jones Sustainability World Enlarged Index	The Dow Jones Sustainability World Enlarged Index (DJSI World Enlarged) tracks the performance of the top 20% of the 2500 largest companies in the S&P Global Broad Market Index which lead in terms of corporate sustainability. These companies are assessed by RobecoSAM using an annual corporate sustainability assessment. The indicator refers to the constituents of the DJSI World Enlarged .
ECPI Global ESG Alpha Equity Index	The ECPI Global ESG Alpha Equity Index is composed of the 100 highest market capitalization and highest Environmental, Social and Governance rated and liquid companies. The indicator refers to the constituents of the ECPI Global ESG Alpha Equity.
Ethisphere WME	The World's Most Ethical (WME) companies designation, developed by the Ethisphere Institute, recognizes companies that promote ethical business standards and practices internally, exceed legal compliance minimums and shape future industry standards by promoting best practices. At the heart of the evaluation and selection process for Ethisphere's WME companies is a proprietary rating system. The indicator refers to the firms which are included in the WME list.
MSCI World ESG Index	The MSCI World ESG Index, a member of the MSCI Global Sustainablitity indices, consists of large and mid cap companies and provides exposure to companies with high Environmental, Social and Governance performance relative to their sector peers. The indicator refers to the constituents of the MSCI World ESG.
Global 100	The Global 100 Most Sustainable Corporations in the World is a sustainability equity index, maintained by the Corporate Knights advisory group and calculated by Solactive, a German index provider. The indicator refers to the constituents which are included in the Global 100.

Table B: The ranking of 86 countries according to the proposed national corporate responsibility index

Rank	**Country**	**NCRI**	Rank	**Country**	**NCRI**	Rank	**Country**	**NCRI**
1	Switzerland	20.64	*30*	Greece	-15.36	*59*	Mexico	-27.36
2	Sweden	19.50	*31*	Thailand	-17.79	*60*	Kazakhstan	-27.53
3	Finland	18.99	*32*	Romania	-17.98	*61*	Turkey	-27.78
4	Denmark	12.59	*33*	Malaysia	-18.99	*62*	Costa Rica	-27.84
5	United Kingdom	9.64	*34*	Hungary	-19.50	*63*	Ecuador	-28.06
6	Netherlands	9.27	*35*	Bulgaria	-19.68	*64*	Pakistan	-28.10
7	Norway	8.04	*36*	India	-20.64	*65*	Argentina	-28.37
8	Australia	6.17	*37*	Lithuania	-20.87	*66*	Bolivia	-28.37
9	Spain	4.21	*38*	Slovakia	-21.73	*67*	Philippines	-29.56
10	France	2.58	*39*	Taiwan	-22.02	*68*	Qatar	-29.65
11	Portugal	2.30	*40*	Croatia	-23.07	*69*	Belarus	-30.18
12	Singapore	0.77	*41*	Panama	-23.41	*70*	Tunisia	-30.26
13	Japan	-0.25	*42*	Slovenia	-23.83	*71*	Honduras	-30.43
14	Canada	-0.76	*43*	United Arab Emirates	-24.17	*72*	Kuwait	-30.65
15	Belgium	-1.22	*44*	Serbia	-24.26	*73*	Kenya	-30.79
16	Italy	-1.56	*45*	Sri Lanka	-24.39	*74*	Egypt	-31.45
17	Germany	-3.93	*46*	Latvia	-24.81	*75*	Ukraine	-31.66
18	Hong Kong	-5.40	*47*	Indonesia	-25.03	*76*	Georgia	-32.26
19	Ireland	-5.70	*48*	Estonia	-25.12	*77*	Russian Federation	-32.38
20	USA	-11.02	*49*	Jordan	-25.19	*78*	Oman	-32.50
21	Luxembourg	-11.12	*50*	Bahrain	-25.41	*79*	Nigeria	-33.13
22	Brazil	-11.74	*51*	Viet Nam	-25.55	*80*	Guatemala	-33.51
23	Colombia	-11.99	*52*	Mauritius	-26.04	*81*	Syrian Arab Republic	-33.70
24	South Korea	-12.13	*53*	Czech Republic	-26.25	*82*	Morocco	-33.94
25	Austria	-12.21	*54*	Iceland	-26.36	*83*	Iran	-34.00
26	South Africa	-12.58	*55*	Poland	-26.36	*84*	Bangladesh	-34.93
27	Israel	-13.57	*56*	China	-26.65	*85*	Venezuela	-35.44
28	Chile	-15.13	*57*	Peru	-26.66	*86*	Saudi Arabia	-37.06
29	New Zealand	-15.19	*58*	Uruguay	-26.98		*Average score: -18.32*	

Table C: Hypotheses and variable operationalization based on Campbell's (2007) propositions

Campbell (2007) Propositions	Derived Hypotheses	Variable operationalization
*"Proposition 1: Corporations will be less likely to act in socially responsible ways when they are experiencing relatively weak financial performance and when they are operating in a relatively unhealthy **economic environment** where the possibility for near-term profitability is limited"* (p.952)	**H1: NCSR will be positively affected by a stable national macroeconomic environment.**	'Macroeconomic environment': Pillar 3 of World Economic Forum's (WEF*) Global Competitiveness Index (GCI).
*"Proposition 2: Corporations will be less likely to act in socially responsible ways if there is either too much or too little **competition**. That is, the relationship between competition and socially responsible corporate behavior will be curvilinear"* (p.953).	**H2: NCSR will be positively affected by general competition in the economy.**	'Competition': Pillar 6A of WEF's GCI.
*"Proposition 3: Corporations will be more likely to act in socially responsible ways if there are **strong and well-enforced state regulations in place** to ensure such behavior, particularly if the process by which these regulations and enforcement capacities were developed was based on negotiation and consensus building among corporations, government, and the other relevant stakeholders"* (p.955).	**H3: NCSR will be positively affected by well developed public institutions.**	'Public Institutions': Pillar 1A of WEF's GCI.
*"Proposition 4: Corporations will be more likely to act in socially responsible ways if there is a system of well-organized and effective **industrial self-regulation** in place to ensure such behavior, particularly if it is based on the perceived threat of state intervention or broader industrial crisis and if the state provides support for this form of industrial governance"* (p.956).	**H4: NCSR will be positively affected by well developed private institutions.**	'Private Institutions': Pillar 1B of WEF's GCI.
*"Proposition 5: Corporations will be more likely to act in socially responsible ways if there are **private, independent organizations, including NGOs, social movement organizations, institutional investors, and the press**, in their environment who monitor their behavior and, when necessary, mobilize to change it"* (p.958).	**H5: NCSR will be positively affected by strong civic activism.**	'Civic activism' index developed by the International Institute of Social Studies (ISS).

* For a full picture of all sub-indices included in the construction of each Pillar we refer the reader to: http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2013-14.pdf (note that 2012 data are published in the 2013-2014 Report).

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