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Published in:
Proceedings of the 21st International EurOMA Conference on Operations Management in an Innovation Economy

Publication date: 2014

Document Version
Early version, also known as pre-print

Link to publication from Aalborg University

Citation for published version (APA):
Environmental and social pressure as drivers of corporate social responsibility in a globalizing world

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Abstract
Studies of drivers of corporate social responsibility (CSR) practices that also explore the influence of company size and location are rare. This paper fills this gap by showing the extent to which environmental and social pressures affect the efforts companies put into implementing internal and external CSR practices and how size and location affect this relationship. The paper is based on data collected in 2013 using the sixth release of the International Manufacturing Strategy Survey.

Keywords: Environmental Pressure; Social Pressure; Internal CSR; External CSR

Background, research questions and hypotheses
The increasing importance of corporate social responsibility
Many western companies have outsourced production and related activities to developing countries, without, however, transferring western environmental and social standards and practices as well. According to the Asian Development Bank, Asia is now the dirtiest continent on the earth. Along with severe water and air pollution, the area faces many other specific problems, including deforestation and loss of biodiversity (Frank et al., 2007). As irresponsible supplier behavior may be reflected on the buying firm and cause reputation damage and costly litigation (Foerstl et al., 2010), the pressure on companies to ensure socially and environmentally practices not only in their own operations but also in their supply chains is increasing. In effect, corporate social responsibility (CSR), the voluntary integration of social and environmental concerns in company operations (Knopf et al., 2011), has become a competitive factor.

The influence of stakeholders on the adoption of CSR practices
Stakeholders are “persons or groups that have, or claim, ownership, rights, or interests in a corporation and its activities” (Clarkson, 1995, p. 106; see also Freeman, 1984; Mitchell et al., 1997). Most researchers of the adoption of CSR practices take an explicit stakeholder approach. The number of stakeholder groups considered by these authors ranges from one, e.g. NGOs (Frank et al., 2007), communities (e.g. Russo and Tencati, 2008) or (international) customers (e.g. Massoud et al., 2010; Wu, 2013), to many, usually some combination of employees, shareholders/investors, customers,
suppliers, industrial organizations, governments, communities, and interest groups (e.g. Clarkson, 1995; Henriques and Sadorsky, 1996, 1999; Campbell, 2007; Russo and Tencati, 2008; Nejati and Amran, 2009; Foerstl et al., 2010; Ervin et al., 2013). All these authors consider environmental issues; some (Clarkson, 1995; Campbell, 2007; Russo and Tencati, 2008; Nejati and Amran, 2009; Foerstl et al., 2010) consider social issues in addition.

The influence of company size and location on the adoption of CSR practices
CSR has been widely studied. However, most studies have investigated CSR at the level of larger companies (e.g. Henriques and Sadorsky, 1996; Werner and Spence, 2004). However, SMEs, companies with fewer than 250 employees, make up over 90% of companies worldwide and account for 50-60% of employment (Raynard and Forstater, 2002). Among the relatively few exceptions studying (aspects of) CSR in medium-sized, small and even micro-companies are Raynard and Forstater (2002), Hillary (2004), Lepoutre and Heene (2006), Ciliberti et al. (2009), Jenkins (2009), Nejati and Amran (2009), Preuss and Perschke (2009), Russo and Tencati (2009) and Fitjar (2011).

Furthermore, most CSR research has focused on developed countries (Chapple and Moon, 2005); research on CSR in developing countries is relatively scarce (Wanderley et al., 2008). Studies reporting (aspects of) CSR in developing countries include Hettige et al. (1996), Welford (2004), Chapple and Moon (2005), Baughn et al. (2007), Wanderley et al. (2008), Nejati and Amran (2009), Massoud et al. (2010) and Wu (2013). According to Welford (2004), companies in developing countries exercise fewer CSR activities than companies in the developed world. In the developed world, due to, amongst others, better education, lower power distance and greater resources, the majority of customers give weight to CSR in their purchasing (Aaronson, 2002; Williams and Zinkin, 2000; Li and Zhang, 2010). Powerful NGOs, appeal systems, institutional standards (Chapple and Moon, 2005) and stakeholder dialogue (Robertson, 2009) add further to the influence of stakeholders on the adoption of CSR practices in developed countries.

CSR in companies and supply chains
Finally, the overwhelming majority of papers focus on individual companies. However, irresponsible supplier behavior may damage a buying company’s image and reputation (Freeman, 1984; Clarkson, 1995) and companies act on that. Lim and Phillips (2008), for example, reported that NIKE, responding to consumer and labor activism and NGO scrutiny, improved working conditions, environmental protection and community welfare, and went from traditional contracts to collaborative partnerships. Lee (2008), Ciliberti et al. (2009, Pedersen (2009), Hsu et al. (2012) and Wolf (2014) are among the few papers addressing the adoption of social, green or sustainability practices in supply chains.

Hypotheses
Thus, while CSR is a hot topic, both in research and in managerial practice, there are still a couple of relatively underresearched areas, in particular the role of:

- Size – are SMEs exposed to the same stakeholder pressures as large companies and do they react the same way in terms of the adoption of CSR practices?
- Location – are companies in developing countries exposed to the same stakeholder pressures as companies in developed countries and do they react the same way in terms of CSR adoption?
- “Unit of analysis” – to what extent do CSR practices find their way into the
supply chains of SMEs and large companies, located in developed and developing countries?

Accordingly, exploring 1) the effects of stakeholder pressures on the efforts companies put into internal (company) and external (supply chain) CSR practices, and 2) the influence of size and location on these effects, the hypotheses tested in this paper are:

**H1:** Stakeholder environmental and social pressures increase the efforts companies put into the adoption of internal and external CSR practices.

**H2:** Context (i.e. size and location) affects the relationship between stakeholder pressures and efforts companies put into CSR activities.

### Research Design

**Data**

This study is based on data from the sixth International Manufacturing Strategy Survey (IMSS-VI). The data was collected in 2013 from production managers of assembly companies (ISIC Rev.4 25-30). Targeted at plants with minimum 50 employees, the questionnaire explores the plants’ strategy, performance, current practices and improvement actions, including CSR related aspects of these constructs. The initial database comprised data from 574 companies spread over 24 countries worldwide; after cleaning the data, 445 companies remained.

**Operationalization**

The four constructs, stakeholder pressure, adoption of CSR practices, size and location, were operationalized as follows.

- **Stakeholder pressure** (the independent variable) – In the IMSS survey, environmental pressure is measured as “stakeholders call for environmentally friendly products and processes”. Social pressure is operationalized as “stakeholders pay attention to companies’ commitment to ethical issues, human rights respect and labor conditions”. Total pressure is the combination of environmental and social pressure. Environmental and social pressure are measured on five-point Likert scales, using “1 = Very weak” to “5 = Very strong”.

- The adoption of CSR practices (the dependent variable) was operationalized as the effort (“1 = None” to “5 = High”) the respondents in the last three years put into the implementation of:

  - **Internal environmental improvement programs**: 1) “environmental certifications (e.g. EMAS or ISO14001)”, 2) “energy and water consumption reduction programs”, and 3) “pollution emission reduction and waste recycling programs”.

  - **Internal social improvement programs**: 1) “social certifications (e.g. SA8000 or OHSAS 18000)”, 2) “formal occupational health and safety management system”, and 3) “work/life balance policies”.

  - **External CSR improvement programs**: 1) “suppliers’ sustainability performance assessment through formal evaluation, monitoring and auditing using established guidelines and procedures”, 2) “training/education in sustainability issues for suppliers’ personnel”, and 3) “joint efforts with suppliers to improve their sustainability performance”.

- **Size and location** – To see the effect of size and location on the stakeholder pressure – CSR adoption relationship, the respondents from the 24 countries were classified into four subsamples: 1) large companies that are located in and originate from developed countries (DDlarge = 55), 2) large companies that are located in and originate from developing countries (ddlarge = 144), 3) medium sized companies that are located in and originate from developed countries (DDmedium = 94), and 4) medium sized
companies that are located in and originate from developing countries (ddmedium = 104). Developing countries have a Gross National Income per capita per year (GNI) < USD 11,095 (World Bank, 2012); the GNI of developed countries is above that threshold. Following the European Union criteria, companies (plants) with 50-250 employees are defined as medium-sized; large companies have 250 employees or more.

**Analysis**

The data is in ordinal form and, in order to keep directionality (O’Connell, 2006), we used simple logistic regression to investigate the impact of environmental pressure on environmental practices, social pressure on social practices and total pressure on external CSR practices. We used pseudo R square (Nagelkerke, 1991) and estimated beta (β) to interpret the data, and t-test to assess the differences between the means.

We investigated the association between stakeholder pressures and the adoption of CSR practices in two steps: 1) for the total sample, i.e. without considering the possible role of size and location, and 2) for each of the four subsamples and, thus, taking size and location into consideration.

**Results and discussion**

*The association between stakeholder pressures and the adoption of CSR practices*

As can be seen from Table 1, the impact of environmental pressure is high on environmental certification ($β=0.533$, $p<0.001$), followed by pollution emission and waste reduction programs ($β=0.523$, $p<0.001$) and water and energy consumption reduction programs ($β=0.503$, $p<0.001$). These results are in line with Henriques and Sadorsky (1996), Hettinger et al. (1996), Hillary (2004), Kassinis and Vafeas (2006), Campbell (2007), Murillo-Luna et al. (2008), Massoud et al. (2010), Fitjar (2011), Ervin et al. (2013) and Wu (2013). According to these authors, customer, media, competitors, community and regulatory pressures affect a company’s environmental policy and commitment of resources to satisfy the environmental demands of these stakeholders.

As can be seen from Table 1, social pressure has a positive effect on social certification ($β=0.444$, $p<0.001$), occupational safety and health ($β=0.384$, $p<0.001$), and work life balance polices ($β=0.446$, $p<0.001$). This supports Campbell (2007), who reports strong influence of state regulations, collective industrial-regulations and NGOs on CSR adoption, including that of social practices. The findings of Nejati and Amran (2009) and Russo and Tencati (2008) also support our findings. Religion, stakeholder pressure and

<table>
<thead>
<tr>
<th>Environmental pressure R-square (β)</th>
<th>Social pressure R-square (β)</th>
<th>Total pressure R-square (β)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental certification 0.12 (0.533) ***</td>
<td>Social certification 0.07 (0.444) ***</td>
<td>Supplier sustainability assessments 0.10 (0.582) ***</td>
</tr>
<tr>
<td>Water and energy consumption reduction 0.09 (0.503) ***</td>
<td>Occupational safety and health programs 0.05 (0.384) ***</td>
<td>Training of supplier personnel 0.08 (0.523) ***</td>
</tr>
<tr>
<td>Pollution emission and waste reduction 0.10 (0.523) ***</td>
<td>Work-life balance polices 0.09 (0.446) ***</td>
<td>Joint efforts with suppliers 0.08 (0.534) ***</td>
</tr>
</tbody>
</table>

** p < 0.05; *** p < 0.01
encouragement (Nejati and Amran, 2009) and community pressure in the form of social license (Russo and Tencati, 2008) drive CSR practices of SMEs. Similarly, total pressure has a positive effect on supplier sustainability assessments ($\beta=0.582$, $p<0.001$), training supplier personnel ($\beta=0.523$, $p<0.001$), and joint efforts with suppliers ($\beta=0.534$, $p<0.001$). These findings go against Ciliberti et al. (2009), report managerial and entrepreneurial values rather than external pressure as drivers of CSR practices in supply chains, but support Lee (2008), Hsu et al. (2012) and Wolf (2014). Furthermore, the results generalize Lim and Phillips (2008), who find that NIKE, due to consumer and labor activism and NGOs scrutiny, improved working conditions, environmental protection and community welfare and went from arm-length contracts to collaborative partnerships.

The influence of size and location

After splitting up the sample into large companies located in and originating from a developed country (cluster 1), large companies originating from and located in a developing country (cluster 2), medium-sized companies located in and originating from a developed country (cluster 3), and medium-sized companies located in and originating from a developing country (cluster 4), the following patterns occur.

Cluster 1 – Large companies located in and originating from a developed country

The magnitude of the beta coefficients in Table 2 suggests that the impact of environmental pressure is high on pollution emission and waste reduction programs ($\beta=0.645$, $p<0.05$), followed by water and energy consumption reduction programs ($\beta=0.543$, $p<0.05$) and environmental certification ($\beta=0.533$, $p<0.05$). Environmental pressure is a significant driver of the efforts companies put into environmental programs, which supports the findings of Ervin et al. (2013), Delmas and Toffer (2004), González-Benito and González-Benito (2010) and Lozano (2013) all of whom report the influence of customers, investors, legislation, competitive pressures, governments, activists, communities and/or industrial associations on the adoption of environmental practices. Among the environmental programs, the impact of environmental pressure on pollution emission and waste reduction is the highest. The reason might be its impact on and visibility to large stakeholders.

Social pressure has a positive effect on social certification ($\beta=0.783$, $p<0.001$), followed by work life balance policies ($\beta=0.504$, $p<0.05$) and occupational safety and health programs ($\beta=0.493$, $p<0.05$). These results support the findings of Campbell (2007), who finds that companies act more socially responsibly in the presence of strong regulation, NGOs and normative institutional environment. Similarly, Lozano (2013) reports that both internal (i.e. leadership) and external (i.e. customers and legislation) are the most important drivers of sustainability (including social) practices. The impact of social pressure is very high on social certification, which suggests that large companies in the west have matured in environmental programs and are now moving toward the social side of CSR.

Total pressure only affects supplier sustainability assessments ($\beta=0.554$, $p<0.05$). This finding is in agreement with Wolf (2014) who finds a direct relationship between stakeholder pressure and sustainable supply chain management. Furthermore, this finding generalizes Lim and Philips (2008) who report that, triggered by consumer and labor activism, as well as NGO scrutiny, NIKE shifted its focus from a traditional code of conduct to collaborative relationships with suppliers.

Thus, we can conclude that environmental and social pressures increase the efforts large companies originating from and located in developed countries put into CSR, in
particular environmental and social practices.

Table 2 – The association between stakeholder pressure and CSR implementation efforts – large companies in developed and developing countries

<table>
<thead>
<tr>
<th>Cluster 1. Location: developed country/origin: developed country/size: large</th>
<th>Environmental pressure R-square (β)</th>
<th>Social pressure R-square (β)</th>
<th>Total pressure R-square (β)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental certification</td>
<td>0.07 (0.533) **</td>
<td>0.15 (0.783) **</td>
<td>Supplier sustainability assessments 0.07 (0.554) **</td>
</tr>
<tr>
<td>Water and energy consumption reduction</td>
<td>0.08 (0.543) **</td>
<td>0.06 (0.493) **</td>
<td>Training for supplier personnel 0.02 (0.302)</td>
</tr>
<tr>
<td>Pollution emission and waste reduction</td>
<td>0.11 (0.645) **</td>
<td>0.08 (0.504) **</td>
<td>Joint efforts with suppliers 0.06 (0.534)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cluster 2. Location: developing country/origin: developing country/size: large</th>
<th>Environmental pressure R-square (β)</th>
<th>Social pressure R-square (β)</th>
<th>Total pressure R-square (β)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental certification</td>
<td>0.04 (0.331) **</td>
<td>0.05 (0.368) **</td>
<td>Supplier sustainability assessments 0.004 (0.127)</td>
</tr>
<tr>
<td>Water and energy consumption reduction</td>
<td>0.05 (0.391) **</td>
<td>0.005 (0.639)</td>
<td>Training for supplier personnel 0.05 (0.423) **</td>
</tr>
<tr>
<td>Pollution emission and waste reduction</td>
<td>0.04 (0.375) **</td>
<td>0.05 (0.379) **</td>
<td>Joint efforts with suppliers 0.03 (0.229) **</td>
</tr>
</tbody>
</table>

** p < 0.05; ***p < 0.01

Cluster 2 – Large companies located in and originating from a developing country

In cluster 2, the impact of environmental pressure is high on water and energy consumption reduction programs (β=0.391, p<0.05) followed by pollution emission and waste reduction programs (β=0.375, p<0.05) and environmental certification (β=0.331, p<0.05). The high impact on water and energy consumption reduction programs might be due to the high cost and poor quality of industrial power in developing countries. According to Hettige et al. (1996), developing countries are indeed adopting standards related to pollution control, which are similar to those in developed countries; community pressure and informal regulation motivate them to adopt such standards.

Social pressure has positive impact on work life balance policies (β=0.379, p<0.05) and social certification (β=0.368, p<0.05), which is in line with, for example, Arevalo and Aravind’s (2011) study on the adoption of CSR practices in India.

Similarly, total pressure has positive impact on joint efforts with suppliers (β=0.554, p<0.05) and training for supplier personnel (β=0.423, p<0.05). In developing countries, mounting environmental and social pressure clearly increases the efforts put into external CSR practices. These results support the findings of Hsu et al. (2012).

Cluster 1 versus cluster 2

External pressure (i.e. environmental and social) is greater for the cluster 1 companies than it is for cluster 2 companies. In developed countries, due to education, low power distance and greater resources, the majority of industrial customers give weight to CSR practices.
in their purchasing practices (Aaronson, 2002; Williams and Zinkin, 2000; Li and Zhang, 2010). Powerful NGOs, appeal systems, institutional standards (Chapple and Moon, 2005) and stakeholder dialogue (Robertson, 2009) add further to the saliency of the stakeholders. However, companies from cluster 2 put significantly more efforts (2.70, p<0.05) in both internal and external CSR practices compared to companies from cluster 1, which is quite interesting. Reporting requirements may play a motivational role. CSR reporting requirements from the Shanghai Stock Exchange in China have led to an increase from 59% in 2011 to 75% in 2013. In India, requirements from the Security and Exchange Board (SEB) have stimulated an increase from 21% in 2011 to 73% in 2013 (KPMG, 2013). Additionally, the data suggest that large companies in developing countries are closing the gap with their colleagues in developed countries.

Cluster 3 – Medium-sized companies located in and originating from a developed country

In cluster 3, environmental pressure has a positive influence on environmental certification (β=0.424, p<0.05). Social pressure affects social certification (β=0.545, p<0.05) positively. Total pressure has a positive impact on supplier sustainability assessments (β=0.652, p<0.05). Legislation and the buying power of large companies have been attributed to the environmental and social certification of their small and medium-sized suppliers (Hillary, 2004; Ciliberti et al., 2009). In response to pressure from these and other stakeholders, SMEs adopt strategies such as compliance with requirements and capacity building approaches to incorporate CSR in their supply chains (Ciliberti et al. 2008), including, for example, green supply chains initiatives

### Table 3 – The association between stakeholder pressure and CSR implementation efforts – medium-sized companies in developed and developing countries

<table>
<thead>
<tr>
<th>Cluster 3. Location: developed country/origin: developed country/size: medium</th>
<th>Environmental pressure R-square (β)</th>
<th>Social pressure R-square (β)</th>
<th>Total pressure R-square (β)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental certification</td>
<td>0.07 (0.424)**</td>
<td>0.08 (0.545)**</td>
<td>0.10 (0.652)**</td>
</tr>
<tr>
<td>Water and energy consumption reduction</td>
<td>0.03 (0.287)</td>
<td>0.01 (0.211)</td>
<td>0.03 (0.345)</td>
</tr>
<tr>
<td>Pollution emission and waste reduction</td>
<td>0.02 (0.233)</td>
<td>0.04 (0.316)</td>
<td>0.02 (0.400)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cluster 4. Location: developing country/origin: developing country/size: medium</th>
<th>Environmental pressure R-square (β)</th>
<th>Social pressure R-square (β)</th>
<th>Total pressure R-square (β)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental certification</td>
<td>0.12 (0.640) ***</td>
<td>0.07 (0.451)**</td>
<td>0.08 (0.534)**</td>
</tr>
<tr>
<td>Water and energy consumption reduction</td>
<td>0.08 (0.490) **</td>
<td>0.006 (0.194)</td>
<td>0.11 (0.628)**</td>
</tr>
<tr>
<td>Pollution emission and waste reduction</td>
<td>0.13 (0.604)***</td>
<td>0.05 (0.371)**</td>
<td>0.04 (0.373)**</td>
</tr>
</tbody>
</table>

** p < 0.05; ***p < 0.01
However, very few SMEs, even those that have a well-established CSR system, incorporate CSR in their supply chains (Pedersen, 2009).

*Cluster 4 – Medium-sized companies located in and originating from a developing country*

Cluster 4 companies are much more CSR active than their colleagues in developed countries. They react to stakeholder pressure by implementing all nine CSR practices considered in this paper, except occupational safety and health programs.

Environmental pressure has positive impact on environmental certification ($\beta=0.64$, $p<0.001$) followed by pollution emission and waste reduction ($\beta=0.604$, $p<0.05$) and water and energy consumption reduction ($\beta=0.49$, $p<0.05$). These results generally support the findings of Massoud *et al.* (2010), Nejati and Amran (2009) and Luken and Stares (2005), who refer to global buyers, supply chain pressures (Massoud *et al.*, 2010; Luken and Stares, 2005), legislation regarding environmental issues and pressure from consumers/customers and suppliers (Nejati and Amran, 2009) as important motivators.

Social pressure has positive impact on social certification ($\beta=0.451$, $p<0.05$) followed by work-life balance policies ($\beta=0.371$, $p<0.05$). These results are in line with Nejati and Amran (2009) and Luken and Stares (2005).

Finally, total pressure has positive impact on training for supplier personnel ($\beta=0.628$, $p<0.05$), supplier sustainability assessments ($\beta=0.534$, $p<0.05$) and joint efforts with suppliers ($\beta=0.373$, $p<0.05$).

*Cluster 3 versus cluster 4*

Cluster 4 companies put generally more effort into a much wider range of CSR practices than cluster 3 companies do – the difference between the means of efforts put into internal and external CSR practices by cluster 3 and 4, respectively, is statistically significant ($3.217$, $p<0.005$). One explanation for this surprising and interesting finding is related to regulations and pressure from international companies sourcing in emerging nations. Another, not necessarily competing reason may be the immaturity of the CSR practices in companies from cluster 4 – they were lagging behind but are investing considerably to catch up quickly. Embarking on global trends in certification and getting access to international markets might be yet another reason (Massoud *et al.*, 2010).

**Conclusion and further research**

*Contribution*

The data confirm Hypothesis 1: environmental and social pressures have significant influence on the efforts companies put into the implementation of internal as well as external CSR practices (Table 1). Furthermore, Hypothesis 2 is also confirmed: size and location affect the relationship between stakeholder pressures and efforts companies put into CSR activities (Tables 2 and 3). Interestingly, large as well as medium-sized firms located in and originating from developing countries put more effort into implementing CSR practices than companies in and from developed countries.

*Further research*

The suggestions put forward to explain the higher efforts of companies in developing countries include increasing importance of regulation (e.g. CSR reporting; KPMG, 2013), buying power from companies sourcing in developing countries and moving CSR into their supply chains, and higher CSR maturity in developed countries. Further research is needed to test these suggestions. Furthermore, size and location are
important contingencies. However, further research is needed into the role of other contingencies, for example culture (cf. e.g. Williams and Zinkin, 2008) and industrial sector (cf. e.g. Wanderley et al., 2008). Finally, reacting to stakeholder pressure is one thing, improving environmental and social performance, both at operational and business level, quite another. Further research is needed to check the extent to which CSR does indeed lead to performance improvement and, in particular, sustainability (cf. e.g. Clarkson, 1995; Kassinis and Vafeas, 2006; Wolf, 2014).

References
Jenkins, H. (2009), “A ‘business opportunity’ model of corporate social responsibility for small-


