How can Firms from Emerging Economies Enhance their CSR-Supported Export Strategies?

Dirk Michael Boehe
Luciano Barin Cruz
Mário Henrique Ogasavara
Copyright Insper. Todos os direitos reservados.

É proibida a reprodução parcial ou integral do conteúdo deste documento por qualquer meio de distribuição, digital ou impresso, sem a expressa autorização do Insper ou de seu autor.

A reprodução para fins didáticos é permitida observando-se a citação completa do documento.
How can Firms from Emerging Economies Enhance their CSR-Supported Export Strategies?

Internal, Market and Institutional Drivers

Authors:

Dirk Michael Boehe, Dr. (corresponding author)
Assistant Professor
Insper Institute of Education and Research
Rua Quatá, 300 / Sala 423
CEP: 04546-042
São Paulo – SP
Brazil

E-mail: dirkMB@insper.edu.br
Phone: (55 11) 4504-2786

Luciano Barin Cruz, Dr.
Assistant Professor
HEC Montréal
3000, Chemin de la cote-Sainte-Catherine
Montréal, QC
H3T 2A7
Canada

E-mail: luciano.barin-cruz@hec.ca
Phone: (001) 514-340-6000

Mário Henrique Ogasavara, Dr.
Assistant Professor
University of Fortaleza
Av. Washington Soares, 1321
CEP: 60811-905
Fortaleza – CE
Brazil

E-mail: marioga@unifor.br
Phone: (55 85) 3477-3229
How can Firms from Emerging Economies Enhance their
CSR-Supported Export Strategies?
Internal, Market and Institutional Drivers

Abstract
The broadly divided literature on the link between corporate social responsibility (CSR) and performance has distracted researchers from intricate inter-relationships that may hide behind straightforward direct effects. Drawing on the strategy tripod, our study addresses this gap by investigating how internal resources, markets and institutions influence a CSR-supported export strategy, which we conceptualise as a differentiation strategy consisting of firm- and product-level CSR reputation and the performance-relevant international market orientation (IMO). Using a sample of 195 Brazilian export companies, we find that in conjunction with internal R&D resources, market-based and institutional pressures seem to directly affect product-level reputational CSR, whereas the latter two only indirectly influence firm-level reputational CSR resources and IMO. Our study contributes to the CSR, resource-based and international business literatures by conceptually refining strategic CSR, distinguishing between firm- and product-level CSR reputation, by investigating how firms develop the underlying resources of their CSR strategies and by covering diverse target-country institutional drivers.

Key-Words: CSR; RBV; Export companies; International Marketing Orientation; Emerging Economies, Institutional Environment.
INTRODUCTION

Unlike altruistic or coerced CSR, strategic CSR is intended to capture value for the firm by means of stakeholder management and by being consistent with the firm’s business strategy (Baron, 2001; Husted and De Jesus Salazar, 2006). This approach allows firms to obtain additional benefits such as “good reputation, differentiated products that extract a premium or more highly qualified personnel” and thus obtain greater profitability (Husted and De Jesus Salazar, 2006: 81).

A large body of research has focused on the relationship between strategic CSR or corporate social performance (CSP) and firm performance, often resulting in contradictory findings (Aupperle et al., 1985; Barnet, 2007; Orlitzky et al., 2003; Waddock and Graves, 1997). The ambiguous relationship between these constructs may be due to the correlations between CSR and other factors that contribute to product differentiation, such as research and development (R&D), marketing or advertising (McWilliams and Siegel, 2000). This is reasonable from a resource-based perspective, as it is rarely one single resource but heterogeneous bundles of several resources and capabilities, of which CSR may be one constituent, that explain competitive advantages and performance (Barney, 1991; Dierickx and Cool, 1989). Others have argued that previous studies have failed to indicate definitive conclusions concerning the relationship between CSR and firm performance, as they have ignored the mediating effects of intangible resources, such as innovation, human capital, culture and reputation (Surroca et al., 2010). By implication, rather than a simple direct effect, more intricate inter-relationships may hide behind the CSR-performance link.

This study addresses this void by applying the rationale of the strategy tripod (Peng et al., 2008) to strategic CSR in international business (IB). Accordingly, we investigate how internal resources, external markets and institutional drivers may influence a CSR-supported
export strategy. We conceptualise this export strategy in terms of differentiation, which is driven by firm- and product-level CSR reputation and international market orientation (IMO). IMO becomes an integral part of such a strategy, as it is assumed to translate CSR into market participation and has been found to be associated with export performance (Knight and Cavusgil, 2004; Knight and Kim, 2009).

This research question is especially important for export ventures from developing and emerging economies, which are often deemed to enjoy unfair competitive advantages due to social (Alber and Standing, 2000; Busse, 2002) or environmental dumping (Hudec, 1996). When such claims are unjustified, they may result in a form of liability of foreignness, that is, the discrimination of non-native firms on institutional grounds, such as preconceptions, ethnocentric and political reasons (Eden and Miller, 2004). For this reason, exporters from developing and emerging economies have an incentive to avoid or offset such accusations by sticking to high social and environmental standards. Our results will be instructive for practicing managers who need to be aware of different drivers and institutional distances to develop and capitalise on intangible strategic CSR resources in IB.

We intend to make the following conceptual contributions: first of all, with regard to the literature on strategic CSR (e.g., Luo and Bhattacharya, 2006), we intend to refine the CSR construct by distinguishing between product- and firm-level CSR reputation. We thus relax the assumption that strategic CSR is a single, uniform concept, and by examining whether or not both types of CSR behave differently, our study intends to provide clues as to whether a reconceptualisation of strategic CSR is justified. As a result, our study goes beyond previous work that has successfully applied the resource-based view (RBV) to CSR issues (Branco and Rodrigues, 2006; Russo and Fouts, 1997) by casting light on how firms build intangible CSR resources and, consequently, by clarifying how research on CSR may add to the RBV.

Secondly, we contribute to literature on the export behaviour of emerging-economy firms
(e.g., Gao et al., 2009), by showing how intangible CSR resources can be nurtured and applied within an export strategy. In addition, we expand the understanding of external (or extrinsic) drivers for CSR (Muller and Kolk, 2010) by adding two target country institution-related drivers to market drivers related to export trade. Accordingly, we advance the nascent literature on institutional drivers for CSR (e.g., Arya and Zhan, 2009; Schaefer, 2007) by expanding our research scope to institutional drivers for CSR from multiple-country environments.

Finally, by using a sample of Brazil-based exporters, this study also makes an empirical contribution, as Latin America and Brazil in particular are still largely under-researched (Cuervo-Cazurra and Dau, 2009). In this way, we respond to Muller and Kolk’s (2010) call for more CSR research in emerging economies. A further contribution to empirical IB literature lies in the use of the environmental sustainability index (ESI) to test target-country-related institutional differences with respect to CSR requirements.

**HYPOTHESES DEVELOPMENT**

We define strategic CSR as instances in which companies go beyond compliance, engaging in actions that can advance social and environmental causes while seeking to capture value for the company by means of stakeholder management and by being consistent with their business strategy (Baron, 2001; Husted and De Jesus Salazar, 2006; McWilliams and Siegel, 2001; Porter and Kramer, 2006). Correspondingly, strategic CSR seeks to create competitive advantages by positioning a firm’s products and the firm itself as being environmentally or socially responsible in the minds of clients and other stakeholders.

However, although individual products may be considered to be environmentally and socially responsible, the reputation of the entire firm does not necessarily benefit from
product-related CSR. Similarly, a firm that has invested in social and environmental programs for communities may still turn out products that are less environmentally efficient than competitors’ products, increase outsourcing to reduce wage and social welfare costs or fail to introduce waste-eliminating processes. Based on this rationale and inspired by extant marketing literature (Aaker and Joachimsthaler, 2000), we relax the assumption that CSR is a single undifferentiated resource and distinguish between product-level and firm-level CSR.

Building on Surroca et al. (2010) and on Brammer and Pavelin (2006), we consider product- and firm-level CSR to be reputational resources that sustain, along with international market orientation (IMO), a differentiation-based export strategy. From now, we assume that resources, capabilities and their deployment through strategic decisions are intimately entwined (Mintzberg, 1978; Duncan et al., 1998).

A product-level CSR reputational resource is defined as the equivalent to reputation based on product differentiation using CSR-related product features. Firm-level CSR reputational resources are defined as the reputation of the firm as a whole. Firm-level CSR increases the value that customers perceive (Bhattacharya et al., 2009) and promotes consumer-company identification by strengthening customers’ loyalty, advocacy and brand identification (Du et al., 2007). Product-level and firm-level CSR reputational resources are especially relevant to understand competitiveness, as intangibles are difficult to imitate (Hall, 1992).

Concerning the question of how firms build CSR-based resources and enhance their export strategies, we investigate the effects of internal resource drivers and external market- and institution-drivers (Peng et al., 2008) on the adoption of product- or firm-level CSR (Hypotheses H1a/b through H4a/b, see Figure 1). We then propose a positive relationship between product- and firm-level CSR (H5). Addressing the concern of how intangible CSR resources translate into market participation and export success, we hypothesise a relationship
between product- and firm-level CSR reputation and international market orientation (H6 and H7). In this vein, previous research has provided evidence for positive relationships between market orientation and firm performance in general (Jaworski and Kohli, 1993; Narver and Slater, 1990) and export performance in particular (Knight and Cavusgil, 2004; Knight and Kim, 2009).

[INSERT FIGURE 1 ABOUT HERE]

**Internal resource drivers and CSR**

We define internal resource drivers as innovation in a stricter sense, for example, as research, product and process development (R&D). Whereas some researchers have argued that there might be a conflict between investment in CSR and R&D (Sen and Battacharya, 2001), research seems to increasingly concur that CSR and R&D are complementary (Branco and Rodrigues, 2006; McWilliams and Siegel, 2000; Padgett and Galan, 2010).

One reason is that CSR, innovation and advertising are major sources of product differentiation (McWilliams and Siegel, 2001). In other words, firms rarely differentiate their products based on only one differentiating feature; rather, they combine different complementary qualities that jointly reinforce the advantage of differentiation. Second, CSR-motivated process improvements, intended to reduce adverse working conditions, waste, and emissions, require problem solving and innovation capabilities, such as R&D or process and product engineering (Branco and Rodrigues, 2006).

**Hypothesis 1a**: R&D resources and capabilities are positively related to product-level CSR resources.

Firm-level CSR resources and R&D focus on the improvement of the firm’s long-term performance as opposed to short-term profit maximisation (McWilliams and Siegel, 2000).
The reason for this focus is that both activities, the creation of a reputation for being socially and environmentally responsible and the development of new products, processes or breakthrough technologies, are fraught with uncertainties, concomitant failure rates, and long-term investments (often without short-term returns).

In addition to the requirement of long-term resource commitment, both R&D and CSR produce reputational resources for the firm as a whole. Whereas reputation is important to improve stakeholders’ identification with the firm (Brown and Dacin, 1997), firms that invest in CSR but not in R&D may be viewed as inconsistent by their stakeholders (Luo and Bhattacharya, 2009). Likewise, firms invest in CSR, R&D and marketing to build their brand reputation (Fombrun et al., 2000). Accordingly, previous research has also suggested that CSR only has a positive effect on the corporation’s market value if it has strong innovative capabilities (Luo and Bhattacharya, 2006). Therefore, we also propose a positive relationship between R&D resources and firm-level reputational CSR resources.

_Hypothesis 1b: R&D resources and capabilities are positively related to firm-level CSR resources._

**External market drivers and CSR**

Previous research has shown that firms may absorb knowledge by internationalising in general (Johanson and Vahlne, 1977) and by exporting in particular (Salomon, 2006). Whereas experiential knowledge is sticky and tied to the particular contexts where firms do business, general knowledge can be transferred across countries and may entail operational knowledge, marketing methods, inter-firm networking and contracting, processes, methodological or product knowledge, among others (Johansson and Vahlne, 1977). Likewise, firms may obtain CSR-related process, product and methodological knowledge through their export activities and modify their products and reconfigure their value chains accordingly.
The underlying mechanisms may work as follows: markets provide positive or negative feedback for firms and consequently drive them to search solutions for the problems that they face (Nelson and Winter, 1982). For instance, firms that have not implemented any CSR-related strategies may face disadvantages in some international markets and consequently have lower (or negative) profit rates than those enjoyed by their competitors, especially in markets characterised by strong rivalry and customer bargaining power (Peng et al., 2008). Seeking to reverse their negative performance, these firms may observe their competitors, analyse their products or talk to international clients or consultants to understand why they are outperformed by their competition. Having learned their lessons, they may introduce products with CSR characteristics and related product and process improvements to enhance their performance in international markets.

The chances that such an international market feedback is positively associated with product-level reputational CSR resources are probably higher as exporters’ international market exposure increases and as international markets become more relevant to its business. Likewise, the accumulation of product-level reputational CSR resources may result in increased exports.

**Hypothesis 2a: Export intensity is positively related to product-level CSR resources.**

According to Johanson and Vahlne (2003), internationalisation can be thought of as engaging in networks of interconnected business relationships with clients and suppliers. Needless to say, network relationships with other stakeholders such as government agencies, competitors and even non-governmental organisations (NGOs) may complement such networks. Interactions with different stakeholders provide more diverse information sources and also more sources of pressure for the adoption of socially and environmentally responsible practices. Reputation is important for developing and maintaining network relationships with suppliers, buyers and other stakeholders (Coviello and Munro, 1997). A firm’s reputation is
directly associated with corporate social responsibility (Strike et al., 2006). Consequently, the firm’s CSR-based reputational resources could prove important for developing and strengthening international network relationships and eventually facilitate future export success. Therefore, to the extent that exposure to export markets increases, firms are more likely to develop firm-level reputational CSR resources and vice-versa.

_Hypothesis 2b: Export intensity is positively related to firm-level CSR resources._

**Institutional-drivers and CSR**

Institutional-drivers operate when consumers informally expect or governments formally encourage firms to fulfil certain environmental or social norms. Previous research has suggested that institutions exert a sizeable influence on the adoption of CSR both in developing (Bindu and Zhang, 2009) and in advanced economies (Schaefer, 2007). Cross-country influences of institutional pressures, however, are largely under-researched, with Muller (2006) and Muller and Kolk (2010) being noteworthy exceptions. When exporters face institutional environments that are considerably distinct from their home market, they need to learn about how to adapt their products, services and business relationships to these institutional environments. We look at how the institutional characteristics of developing or advanced countries (H3a and H3b) and sustainability-related institutional characteristics influence the adoption of product- and firm-level CSR, respectively (H4a and H4b).

Exporters from developing economies often face a gap between technical standards, design norms and other product quality requirements at home as compared to world-class standards abroad (Bartlett and Ghoshal, 2000). Therefore, because exporters that enter advanced economies are exposed to more demanding requirements, they need to develop stronger resources and capabilities to close their technical, design and quality gaps. Correspondingly, we would expect that exporters from developing countries face less ground-
breaking CSR-related process, product and methodological challenges when they export to other developing countries than they do when exporting to advanced countries.

Hypothesis 3a: The relationship between export intensity and product-level CSR resources is weaker for firms that predominantly export to developing countries compared to those that predominantly export to advanced countries.

Compared to local firms, foreign firms face costs owing to unfamiliarity with the host country business environment but also due to relational and discriminatory hazards, which are driven by institutional distance between the home and the host country; because institutional distance persists over time, so does the liability of foreignness (Eden and Miller, 2004). To expand their activities abroad, internationalising firms need to overcome the liability of foreignness by employing their competitive or ownership advantages (Dunning, 1988; Hymer, 1976). However, product innovation or product adaptation to local conditions, e.g., by strengthening product-level CSR, may prove insufficient when firms face considerable discriminatory hazards. The difficulty of overcoming the liability of foreignness is often even more aggravated when firms from developing economies enter advanced countries (Cuervo-Cazurra and Genc, 2008; Barnard, 2010). To compensate for these disadvantages, exporters may refocus their attention on their firm’s overall reputational resources above and beyond individual products.

Hypothesis 3b: The relationship between export intensity and firm-level CSR resources is weaker for firms that predominantly export to other developing countries compared to those that predominantly export to advanced countries.

Although developing countries are often equated with lower standards in social and environmental regulations and, consequently, a lower number of firms that adopt CSR approaches, this does not necessarily have to be the case. The Greendex, an index for country-level sustainability and a proxy for the level of institutional pressure for CSR in a given country, for instance, classifies developing countries such as Brazil or India above advanced
countries such as the US. (National Geographic, 2009). Moreover, a recent study on CSR in OECD countries has identified wide differences even among advanced countries ranging from high-ranking Scandinavian countries to low-ranking countries such as the US and Austria (Gjølberg, 2009). For this reason, and in line with Globerman and Shapiro (2002), we introduce a separate index that helps to distinguish between countries with different social and environmental infrastructures, irrespective of their level of economic development.

Adding an institutional dimension to the above reasoning on the relationship between market drivers (export intensity) and product-level reputational CSR resources, we argue that market-driven incentives to adjust products and processes taking into account CSR features are boosted if exporters target countries with a demanding institutional environment as far as social and environmental sustainability are concerned. Consumers in such countries may demand and governments may require that firms offer products that comply with high social and environmental standards.

**Hypothesis 4a: The relationship between export intensity and product-level CSR resources is stronger for firms that predominantly export to countries with a high sustainability orientation compared to those that predominantly export to less sustainability oriented countries.**

Similarly, exporters that target countries with a strong sustainability orientation also require a stronger commitment to developing firm-level CSR, as more demanding target country institutional environments imply higher benchmark requirements for reputation and trust-building activities. Similar to our argument for H3b, the underlying reason is that accusations of social (Alber and Standing, 2000; Busse, 2002) or environmental dumping (Hudec, 1996) may be more frequent in countries with such demanding institutional environments, in particular as far as imports from lower-cost countries are concerned. This may result in a liability of foreignness, which can be compensated by CSR-based reputation building at the firm level. To put it differently, exporters that intend to strengthen their network relationships
with local value chain partners in high-sustainability-oriented countries are likely to be more successful if they develop CSR resources and practices that correspond at least to these countries’ social norms and administrative regulations.

Hypothesis 4b. The relationship between export intensity and firm-level CSR resources is stronger for firms that predominantly export to countries with a high sustainability orientation compared to those that predominantly export to less sustainability-oriented countries.

Product- and firm-level CSR resources

The combination among CSR-based products, services and further social action may result in complex synergistic combinations that create the reputational resource of being a socially and environmentally responsible company. Such intangible resources are non-transferable and difficult to imitate and can leverage other resources synergistically (Makadok, 2001; Ellen et al., 2006); they are thus important underpinnings of competitive advantages.

Conversely, a firm-level CSR reputation may be disclosed as window dressing if it is not steadily accompanied by a coherently aligned product and service policy. If firms do not continuously develop and launch new products and services that respect or go beyond social and environmental standards, their firm-level CSR reputation is doomed to erode rapidly. Therefore, exporters that have developed strong firm-level CSR, by communication measures, including marketing and branding for instance, are under pressure to deliver accordingly if they intend to maintain their favourable reputation in the long run (Brammer and Pavelin, 2006).

Hypothesis 5: Product-level CSR resources are positively related to firm-level CSR resources.
Product- and firm-level CSR and international market orientation (IMO)

Both product- and firm-level CSR reputational resources may enable firms to produce valued market offerings efficiently and/or effectively (Hunt and Arnett, 2006) and therefore translate into superior placement in international markets.

Based on the assumption that the development of an intangible resource is more straightforward for those firms that have already developed other complex resource and capability bundles, we would expect that exporters that have already gained some experience with complex intangible CSR resources are likely to develop a similarly complex international marketing orientation (IMO). More importantly, exporters with product- and/or firm-level CSR have an incentive to develop IMO and related activities, such as promotion, branding and differentiation, as they need to commercialise their products more effectively if they intend to recoup the costs associated with CSR activities.

Conversely, firms that have already put IMO into practice but have not yet adopted product- or firm-level CSR may perceive a series of challenges when distributing and promoting their products abroad. The inherent activities of IMO, such as the use of refined marketing tools and the evaluation of past performance and feedback from customers and other stakeholders, may draw exporters’ attention to deficiencies, such as missing or weak product- or firm-level CSR. Therefore, investments in international marketing can stimulate firms to create a firm- and product-level CSR reputation and consequently improve performance (Knight and Kim, 2009). Accordingly, the combination of these three resources and capabilities is closely associated with their strategic deployment (Mintzberg, 1978; Duncan et al., 1998) and characterises a CSR-supported export strategy.

Hypothesis 6: Product-level CSR resources are positively related to international market orientation.

Hypothesis 7: Firm-level CSR resources are positively related to international market orientation.
METHOD

Sample
We used a survey research design to test our hypotheses. Our population is the group of medium- and large-sized Brazilian exporters, which represent more than 90% of Brazilian exports. We drew our sample from a sample frame with more than 3,356 Brazilian export firms; the sample frame was obtained through a formal agreement with FUNCEX, a private research institute specialising in Brazilian foreign trade.

The unit of analysis was the export firm. Because some firms may commercialise highly diversified product ranges abroad, we asked our respondents to focus their answers on the export product category that is most relevant to the firm. We used the key respondent approach and defined key respondents for our survey as the main decision makers and the negotiators for their firm’s export business with at least two years of experience. The questionnaire also contained a filter question to verify that the respondent firm was actually exporting at the time the questionnaires were administered (in 2008).

In line with the “tailored design method” (Dillman, 2007), our questionnaire was administered over the Internet, using a professional online survey service. Altogether, 378 key respondents accessed the online questionnaire, and fewer than 10 asked for a printed version of the questionnaire, being unable to access the online version due to their firms’ firewalls. The main reasons for this low response rate can be found in the increasing use of firewalls that block access to web-hosted questionnaires, the fact that approximately 20% of the sample frame was outdated, restrictive firm policies regarding the disclosure of strategic information such as sales and profit figures and the finite resources of export managers (time).

Our sample contained firms belonging to highly diversified industries, including export products related to chemicals (11.4%), lumber and wood (10.9%), food and kindred (10.5%),
industrial machinery and equipment (10.0%), agriculture (7.7%), and others. The average firm raised about US $3.8 M in export revenue. Approximately 35% of the exporters are large firms (>500 employees), about 40% are medium-sized firms (between 100 to 499 employees) and roughly 25% are small firms with fewer than 100 full-time employees.

The questionnaire consisted of indicators that were adapted from previous surveys (see the measures section below) and indicators that were specifically developed for this study using the recommendations proposed by DeVellis (2003). Following Dillman’s (2007: 140-147) guidelines, the questionnaire was pre-tested in four stages: a) experts analysed and discussed the questionnaire during several meetings; b) cognitive personal interviews were conducted with more than 20 export firms to determine whether the respondents understood the language used in the questionnaire; c) a small sample pilot study of about 35 firms was used to identify some obvious problems with indicators and distributions and d) a final online check was carried out by the responsible researchers and their colleagues to rule out possible technical problems.

Measures

Endogenous variables

Product-level CSR

We developed four new indicators to measure the construct of product differentiation by CSR characteristics. Following the recommendations of DeVellis (2003), a process involving several pre-test, test and refinement stages of construct development was used. We used a Likert scale ranging from one (totally disagree) to six (totally agree) and asked whether the product differentiates itself through social or environmental reputation and certifications (see Table I for details). The resulting four-item construct’s reliability was high (alpha =0.916).
**Firm-level CSR**

Firm-level CSR included three indicators, which were developed by the authors following the above-mentioned procedure. Using a Likert scale ranging from one (totally disagree) to six (totally agree), we asked respondents about CSR projects and the firm’s domestic and international recognition as a socially and environmentally responsible company (see details in Table I). The three-item scale reliability was adequate (alpha = 0.853).

**International Marketing Orientation**

The international marketing orientation construct was adapted from McKee et al. (1992) and Knight and Cavusgil (2004). After a series of pre-tests, we had to slightly adapt the scale to the characteristics of our respondent firms, some of which had not implemented international marketing-related activities or processes at all and therefore felt uncomfortable with the original scale, which did not explicitly cover this possibility. Other respondents mentioned that they did not know how their main competitor performed. We therefore used a Likert scale ranging from zero (“[the process or activity] does not exist”) to five (“very much above the industry average”). Moreover, we introduced two more indicators that turned out to be relevant in light of our research context (e.g., the promotion of the firm’s own brand abroad). In accordance with the partial least squares (PLS) procedure, we eliminated three indicators with item loadings below the 0.7 benchmark. The final construct encompassed five indicators (see Table I for details), and the construct’s reliability was fairly high (alpha = 0.892).

**Exogenous variables**

**Research and Development (R&D) Department**

According to our definition, we use a narrow, objective measure for the internal driver of
CSR-supported export strategies, which is the presence of an R&D department in the exporter company. Exporters with dedicated R&D departments were coded “1”; all others were coded “0.” There are two reasons for this choice: first, an objective and more focused measure should contribute to reduce potential common method variance as compared to perception measures. Second, we expect firms with their own R&D departments to have more sophisticated and permanent innovation and learning routines than a firm with no formalised departments; we thus separate all firms with only sporadic innovation activities. To validate this dummy measure, we correlated it with a perception-based six-item innovation scale (adapted from Zahra et al., 2000; Yiu et al., 2007) and used it in an alternative model to check for robustness. The correlation coefficient was positive and significant (0.379, p<0.01), and the paths from the innovation scale to product and firm-level CSR respectively were positive and significant, similar to the original model. Therefore, the R&D dummy variable seems to be reliable and to adequately represent internal R&D resource-driver activities.

**Export Intensity**

We measured export intensity using three indicators that asked about the participation of exports in total product sales in (a) 2008 (expected), (b) 2007 and (c) 2006. The measures where adapted from Lages et al. (2008); however, we used a finer grade 11-item percentage scale. The reliability of the scale was very high (alpha = 0.977). Although this construct could also be modelled using formative indicators, due to very high correlations and multicollinearity among the three indicators, we had to use reflective indicators (Diamantopoulos and Winkelhofer, 2001: 271-272).
**Controls and moderator variables**

*Social and environmental certifications (Certification)*

Controlling for social and environmental certifications allows us to identify to what extent certifications may influence product- or firm-level CSR and thus to verify the degree to which either endogenous constructs may rely on more objective, internationally standardised criteria. For social and environmental certification we used a dummy variable coded “1” if the export firm has already obtained a social and environmental certification and “0” otherwise. The list of certifications cited by the respondents includes ISO14000, SA8000, FSC, USDA Organic, GLOBALGAP and IBD, among others.

*Target Country*

This continuous index, also used to build the interaction terms to test hypotheses 3a and 3b, represents the degree to which exporters target other developing countries. The index is based on three objective measures that capture the relative participation of each of the three main export target countries in total exports. Using a fine-grained 20-item percentage scale, we asked our respondents to “indicate the three most important target countries of your exports and the approximate participation in total exports.” We then classified each country as either a developing or an advanced country based on the classification adopted in the World Investment Report released by UNCTAD (United Nations Conference on Trade and Development). Finally, we calculated two separate indexes, one for developing and the other for advanced target countries, based on the percentage scores. To test our hypotheses, in the analysis, we used the target country index related to the export participation in developing countries.
**Multinational Corporations (MNC)**

Analogous to parental networks, we regard MNC subsidiaries as nodes in networks of internationalisation or technological knowledge and international market connections that subsidiaries can access (Elango and Pattnaik, 2007). Local subsidiaries are likely to be exposed to global stakeholder demands, the corporation’s global CSR policies or information exchange on best practices in CSR. Whereas emerging economy firms often lack the resources and capabilities that are necessary to compete in global markets, MNC subsidiaries located in emerging countries may have them due to resource and capability transfer. To take account of such potential effects, we also controlled for export firms that have the equity participation of a MNC. We coded “1” for export firms that are MNC subsidiaries and “0” otherwise.

**Firm Size (Staff)**

It is important to control for firm size to account for the possibility that firm- and product-level CSR are related to the size of the firm. We controlled for the size of the export firms using the logarithm of full-time employees.

**Industry**

To control for industry effects, a dummy variable is applied and coded “1” for export firms that manufacture high-value-added products and “0” for low-value-added products. The criterion used to classify the export firm’s industry is based on the two- and three-digit SIC (Standard Industrial Classification) code classification. SIC codes below 28, and codes 31-32 were classified as having lower-value-added industries, whereas all other SIC codes were classified as higher-value-added industries.
Technical standards setting (GVC)

Exporters from developing economies are often part of global value chains (GVC). According to Humphrey and Schmitz (2000), the main types are arms-length relationships, the network type, quasi-hierarchical governance and hierarchy. Characteristic of quasi-hierarchical governance is parameter setting and enforcement by external agents, such as the lead firm or the international buyer in the global value chain. Different from network governance, quasi-hierarchical governance has also significant (less favourable) implications for the development of an exporter’s innovation capabilities (Humphrey and Schmitz, 2000). Controlling for this possibility by asking exporters about the “percentage of their exported products that are manufactured according to the technical specifications determined by their buyers or distributors abroad” (12-item percentage scale), we are able to take into account the possibility that product- or firm-level CSR is driven not by exporters’ own motivation but rather by coercion through third parties.

Environmental Sustainability Index (ESI)

This continuous index was also used to build the interaction terms to test hypotheses 4a and 4b. The Environmental Sustainability Index (ESI) was developed by the World Economic Forum (WEF) in collaboration with Yale and Columbia Universities. The ESI is a composite index tracking a diverse set of socioeconomic, environmental, and institutional indicators that characterise and influence environmental sustainability at the national scale for 146 countries. It is based on a compilation of 21 indicators that are derived from 76 underlying data sets, which provides a mechanism for making environmental management more quantitative, empirically grounded, and systematic. This index has already been used by several researchers in previous studies (Globerman and Shapiro, 2002; Lindenberg, 2002; Sullivan, 2002) aiming at identifying sustainability characteristics of countries. We adopted the
following steps to calculate the index: first, we identified the three main export target countries and the respective participation of each country in total exports; second, we codified each country using its respective ESI; third, we weighted each country’s ESI by the country’s participation in the firm’s total exports; finally, we calculated the weighted average for each export firm considering the three main export target countries and their respective weighted ESIs. In a few cases of missing information on export target countries, we calculated the weighted average based on the available information.

**Potential Bias**

*Non-response bias*

To test for non-response bias, we applied the procedure suggested by Armstrong and Overton (1977) and checked whether there were significant differences between early and late respondents. We performed an independent sample t-test on the average of firm size (number of employees), export intensity (for 2008, 2007, and 2006), and R&D between early and late respondents (comparing means). Any statistically significant variance between early and late respondents would have indicated the potential for non-response bias. No such differences were found with respect to the indicators used in this study that reflect sample characteristics (firm size, t-value=0.176; export intensity for 2008, t-value=0.868; for 2007, t-value=0.792; for 2006, t-value=0.827; R&D, t-value=0.636).

*Common method bias*

To reduce and avoid potential common method bias, we implemented some preventive measures proposed by Podsakoff et al. (2003: 887-888), such as the separation of dependent and independent variables by several intercalated questionnaire pages, the use of different measurement scales (e.g., Likert from one to five, one to six and one to seven, percentage
scales, agreement, importance and comparison scales, among others) and dummy variables. Most importantly, we used objective measures for our exogenous (independent) and control variables and perceptive measures for our endogenous or dependent variables.

In addition, we adopted post hoc procedures to examine the degree of potential common method variance by running Harman’s one-factor test. After entering all 12 perception-based indicators into a principal component analysis, the unrotated factor solution clearly separated all three endogenous constructs, and the explained variances were 41.5%, 25.2% and 9.0%; in other words, there was no common underlying factor that accounted for the large majority of the explained variance.

However, due to repeated criticism, the Harman test has been considered insufficient to take account of method variance (Podsakoff and Organ, 1986). We therefore applied the unmeasured latent method construct (ULMC) technique in confirmatory factor analysis (CFA) to verify to what extent the inclusion of a method construct affects the correlations among latent variables (Richardson et al., 2009; Williams et al., 1989). This treatment using a maximum likelihood technique and AMOS 5.0 was possible, as there were more than 200 responses available (n=220) for these measures as compared to the measures of export intensity. The results show that the trait-only model fits better than the method-only model, suggesting that the observed variance among the three latent constructs is not only due to the method. The trait method and the trait-method R-model (with latent variable correlations constrained to those obtained from the trait only model) presented the second-best and the best fit, respectively ($\chi^2$/df = 2.811, CFI = 0.961, NFI = 0.942, RMSEA = 0.091). This suggests that although method-related variance seems to be present in the CFA model, the latent construct correlations remain largely unaffected. The results of the post-hoc analyses (see subsection on the measurement model below) suggested that the method effect is probably due to overlapping item content in two item pairs. Therefore, common method
variance is unlikely to be a serious concern in this study.

**Analytical technique**

We used partial least squares (PLS) to test our path model. Previous research has been recommended to use PLS when sample sizes are small relative to the number of indicators used (below 200), for early stages of theory development, when the aim is prediction and when formative indicators or non-normal data are used (Chin and Newsted, 1999).

To facilitate the interpretation of interaction effects and to verify how the remaining path coefficients change, we divided the sample into two split-samples, one representing those exporters that predominantly exported to countries with above-average scores on the environmental sustainability index (ESI) and those that exported to countries with below-average scores. The size of the subsamples was adjusted to the actual sample size following the automatic deletion of missing values (casewise deletion). As a result, the subsample size dropped to n = 195 (for the complete sample) and n = 103 and n = 92 for the split-samples, respectively. To calculate the t-values (significance of path coefficients) we used the bootstrap method (with 1,000 samples) provided by SmartPLS 2.0 M3.

**RESULTS**

**Measurement Model**

The multidimensionality of constructs was first assessed using exploratory factor analysis. Cronbach’s alpha coefficients are indicators of convergent validity, and coefficients above 0.7 should generally be used as a benchmark (Hulland, 1999). The Cronbach’s alpha coefficients for the four multi-item constructs are 0.916 for product-level CSR, 0.853 for firm-level CSR,
0.892 for international marketing orientation and 0.977 for export intensity. According to Table I, item reliability is also very high, as all t-values, obtained through bootstrapping, considerably exceed 2.57 (p<0.01).

We examine discriminant validity, looking at correlations and cross-loadings. Table II (correlations) suggests that discriminant validity can be established for our data. Moreover, according to Fornell and Larcker (1981) the average variance extracted (AVE) of the four multi-item constructs (Table I) should be higher than the square roots of inter-construct correlations (Table II). This is also the case in our dataset. Therefore, we can conclude that our measurement model fulfils even more demanding standards.

Post-hoc analyses in CFA (using the larger sample n = 220 with perception-based measures only) based on modification indices (Byrne, 2001) resulted in two minor corrections, that is, correlated errors of the same indicators, most likely due to partly overlapping item content. We then compared an unconstrained model with a constrained model by setting all three co-variances to “1”. The $\chi^2$ (3)= difference of 70.14 ($\chi^2$ (52)=187.064 for the constrained model - $\chi^2$ (49)=116.924 for the unconstrained model) is significant (p<0.000), and the unconstrained model also shows better fit indices ($\chi^2$/df = 2.386, CFI = 0.965, RMSEA = 0.080) than the constrained model ($\chi^2$/df = 3.597, CFI = 0.931, RMSEA = 0.109). Therefore, based on several independent checks, we can establish discriminant validity for the perception-based measures.
Structural Models

The structural model is evaluated using three criteria: 1) the effect size of the path between two constructs; 2) the amount of variance of the main endogenous variable explained ($R^2$) and 3) significance tests (t-values). According to Lohmoeller (1984), the effect sizes of paths should be higher than 0.1 to be valid. Regarding explained variance, the picture is mixed; Chin (1998), for instance, considers $R^2$ levels above 0.67 to be strong, levels above 0.33 to be average and levels above 0.19 to be small. Others consider $R^2$ levels higher than 0.3 to be acceptable (Herrmann et al., 2006), whereas many studies do not even report $R^2$. Two of the three explained variances ($R^2$) of our dependent variables, firm-level and product-level CSR, exceed 0.3, whereas one explained variance, that of international marketing orientation, is rather weak (0.14). However, as the paper’s main emphasis is on the resource, market and institutional drivers related to CSR, we regard the explained variances to be satisfactory. Concerning the split-sample model, the three variances explained are even better than those in the main model (Table III). Several of the paths have t-values above the minimum of 1.98 ($p<0.05$) and 2.57 ($p<0.01$); the structural models thus satisfy the evaluation criteria.

We now turn to the individual hypothesis tests (Table III). The path coefficients from R&D (resource-driver) to both product-level and firm-level CSR are significant at $p<0.01$ (t-values = 3.007 and 3.522 respectively). Our results thus support hypotheses 1a and 1b. The effect of export intensity (market-driver) on product-level CSR is positive and significant at $p<0.05$ (t-value = 2.096); however, there is no significant effect on firm-level CSR. Our data thus support hypothesis 2a but reject hypothesis 2b. The interaction of export intensity and
target country and that of export intensity and ESI, representing institutional drivers of product-level CSR are both significant. Hypothesis 3a proposed that the relationship between export intensity (external market driver) and product level CSR would be weaker for firms that predominantly export to other developing countries compared to those that predominantly export to advanced countries. This is the case, and hypothesis 3a is thus supported by our data. Hypothesis 4a posited that the relationship between export intensity (external market driver) and product-level CSR would be stronger for firms that predominantly export to countries with a high sustainability orientation compared to those that predominantly export to less sustainability-oriented countries. The positive and significant effect of the interaction between ESI and export intensity (t-value = 2.410) suggests that our data also support H4a. However, neither of the two interaction effects on firm-level CSR is significant, which rejects H3b and H4b.

Hypothesis H5 suggested that product-level CSR and firm-level CSR would be positively associated. The effect size is positive and significant (t-value = 8.034) and strongly supports H5. As far as the relationship between CSR and international marketing orientation is concerned, we predicted positive relationships between product-level CSR and international marketing orientation (H6) and between firm-level CSR and international marketing orientation (H7). However, only the latter effect is positive and significant (t-value = 5.011); we thus reject H6 and find support for H7.

Comparing the two split-samples, the low- and high-ESI target-country institutional contexts, it is noteworthy that hypotheses 1a and 1b are supported in both split-samples. Hypothesis 3a only holds in the low ESI target-country subsample (see also interaction plot based on coefficients derived from mean-centred indicator values, Figure 2 below), whereas H2a and H7 only hold in the high-ESI target-country subsample. As for H5, both the path coefficient and the t-value are substantially stronger in the high-ESI subsample. Concerning
the control variables, CSR certification is significantly positively related to product-level CSR in the main sample and in both subsamples. The target country is negatively and significantly related to CSR at the product level but only in the high-ESI split-sample. The negative effect of the technical standard setting in the global value chain (GVC) is only significant in the high-ESI subsample. Interestingly, we observed a sign change regarding the industry effect on product-level CSR. Whereas the effect is positive and not significant in the low-ESI subsample, it is negative and strongly significant (p<0.01) in the high-ESI subsample.

Furthermore, we carried out a supplementary cluster analysis to obtain more fine-grained evidence for our claim that product-level and firm-level CSR are likely to reinforce themselves and combine themselves into an intangible CSR resource (see also the reasoning behind H5). For this purpose, we divided our sample into four groups and tested for group differences (Table IV). Firms that are strong in both product-level and firm-level CSR also have the most advanced international marketing orientation and CSR-related certifications compared to the other three groups, which score high on only one dimension or on no CSR dimensions at all. Together with our path analytical results, this group analysis indicates initial support for our claim.

[INSERT FIGURE 2 ABOUT HERE]

[INSERT TABLE IV ABOUT HERE]

DISCUSSION AND CONCLUSIONS

This study has analysed the effects of three drivers drawn from the strategy tripod on two different types of CSR resources, product- and firm-level CSR, to understand how firms from an emerging economy may enhance their CSR-supported export strategies.
Alongside internal R&D resources, market and institutional pressures seem to directly affect product-level reputational CSR, whereas the latter two only indirectly influence firm-level reputational CSR resources (through mediation by product-level CSR). This may be because external stakeholders’ primary concerns are linked to a firm’s output (that is the reputation of its products) and, to a lesser degree, to its corporate reputation. We may draw on Muller and Kolk (2010) for the alternative explanation that intrinsic drivers (i.e., senior managers’ commitment to ethics) are stronger predictors of firm-level reputational CSR resources than external drivers. In agreement with our hypotheses, such intrinsic drivers may translate in higher CSR-related R&D investments.

A surprising result is that product-level reputational CSR resources were not found to be associated with IMO. That product-level CSR on its own may not be enough to develop strong trust-based relationships with external stakeholders, which relies on firm-level reputational resources, could be a plausible explanation for this finding.

Results from the low- versus high-ESI split-samples also merit some comments. Consistent with our overall rationale, external market-drivers only significantly affect product-level reputational CSR resources when exporters target predominantly high-ESI countries, suggesting that market opportunities are probably greater in high-ESI countries than in low-ESI countries. Because Brazil scores quite high on the ESI, Brazilian exporters would probably not have much to learn from low-ESI target countries.

Moreover, the effect of firm-level reputational CSR resources on IMO disappears in low-ESI markets, probably because firm-level CSR ceases to be critical to success there (due to lower stakeholder demands for CSR), whereas IMO on its own may continue to be relevant for market success.

The split-sample analysis also revealed an interesting three-way interaction: the effect of external market-drivers on product-level reputational CSR resources becomes stronger when
export target countries have a low-ESI institutional environment and when there are fewer developing countries among export destinations. What looks surprising at first glance does in fact have a logical basis: the interaction plot (Figure 2) shows that the relationship between market drivers (export intensity) and product-level CSR is negative when exporters target mostly developing countries and low-ESI countries at the same time. The relationship is strongly positive, however, when few developing countries are targeted in a low-ESI environment. This finding may suggest that there are different, unrelated institutional mechanisms: for the case of Brazilian firms (high ESI score), the impact of advanced countries’ institutional environments in general seems to have a stronger effect on the adoption of product-level CSR than do institutional environments characterised by high sustainability (ESI).

A final insight from the split-samples is that economy-of-scale effects, represented by a significant effect of size on firm-level CSR in the high-ESI subsample, seem to be present: in other words, whereas firm-level CSR seems to be relevant for competing in high-ESI export target markets, its higher costs (because it adds considerable costs to product-level CSR) need to be diluted across larger operations.

**The CSR construct, drivers and consequences**

Our work advances CSR literature that has previously proposed positive relationships between CSR, R&D and marketing or advertising (McWilliams and Siegel, 2000, 2001) by suggesting an integrative framework that conceptualises such relationships as a set of drivers that contribute to CSR-supported export strategies by creating intangible CSR resources, which, in turn, positively influence international market orientation and, by implication, export success. Moreover, our results demonstrate that different types of CSR, here product- and firm-level intangible CSR resources, may be developed by different drivers. These
findings provide further grounds for relaxing the assumption that strategic CSR is a single undifferentiated concept; therefore, our findings add to and make a case for research on CSR classifications (Carroll, 1979; Husted and De Jesus Salazar, 2006; Pirsch et al., 2007). Additionally, by examining a particular intangible resource (reputation) and by decomposing it into firm- and product-level CSR, we extend the approach of Surroca et al. (2010), who argue that intangible resources mediate the CSR-performance relationship.

**CSR in international business**

Whereas several authors have focused on extrinsic drivers for CSR (Aguilera et al., 2007; Muller and Kolk, 2010), we go above and beyond by showing that external market-drivers may vary according to the institutional characteristics of export target markets, such as advanced versus developing, or high-versus low-sustainability-committed countries. In other words, instead of simply proposing that export trade increases CSR or CSP, our results suggest that the magnitude of this increase is likely to be contingent on the characteristics of the export market concerning its development and sustainability level. Moving beyond previous research that captures the distance between countries in terms of cultural (Kogut and Singh, 1988), psychic or institutional distance (Dow and Karunaratna, 2006), our approach advances empirical IB research by indicating that the environmental sustainability index (ESI) may be useful for measuring institutional distance. We thus also respond to Muller and Kolk’s (2010) call for more research on CSR or CSP in other emerging economies, as this would help to understand to what extent overall economic conditions, culture and other context-specific variables may affect CSR.

**CSR and the Strategy Tripod in International Business (IB)**

Using the three dimensions of the strategy tripod (Peng et al., 2008), we contribute
theoretically to the literature on the role of CSR in export ventures by integrating resource-, institution-, and industry-based views in examining the factors that influence a differentiation-based, CSR-supported export strategy.

Inquiring into what contributions IB research can make to general management theories, Peng (2001) argues that IB can contribute to RBV by identifying the sources of internal resources and capability. We extend this farther, suggesting that even exporters (without necessarily having a direct presence abroad) may be stimulated to build up CSR resources by means of drivers that are located abroad. When cross-border trade linkages suffice to develop certain types of resources, this implies that resources can be built up regardless of their physical presence.

We provide further evidence that the institutional environment is essential for understanding the role of CSR in IB, especially as far as cross-country trade relationships involving firms from developing and advanced economies are concerned. We thus add to existing evidence on the importance of institutions in international business and further highlight how research based on emerging economy samples may contribute to IB theory (e.g., Hoskisson et al., 2000; Peng et al., 2008; Wright et al., 2005). Moreover, whereas existing IB research has successfully addressed institutions in single-country (Arya and Zhan, 2009; Schaefer, 2007) or home-country (Gao et al., 2009) environments, we extend this research stream covering institutional drivers originating from multiple environments (export target countries).

Limitations and Future Research

Some limitations of the present study have to be taken into consideration when providing suggestions for further research. First, it should be noted that we measured CSR resources based on perception measures. Although measuring clients’ perception could be a
methodologically sound alternative, collecting CSR perception data from thousands of clients and other stakeholders around the globe would have been unfeasible. Moreover, exporters’ own perceptions are important, as they are critical to understanding exporters’ strategies and strategic signals (Fombrun and Shanley, 1990). Second, our data are cross-sectional, implying that we only observed a “snapshot” of one point in time, although there were some questions in the survey that recalled information from the past three years. Future studies could capitalise on longitudinal data to provide more insight into causal relationships. Third, the sample size and the response rate are small; however, they seem to be roughly in line with primary research experience with executives in emerging and developing economies (Harzing, 2000).

Finally, the results obtained in this study may be moderated by the characteristics of Brazilian firms or the export products related to these companies. Future studies could provide insight into the applicability of the findings of this research for samples drawn based on exporters originating from other emerging or developed countries and build a sample from multiple countries. Although the last case would involve a great effort of gathering data, it provides a great opportunity to test whether or not there exist origin-country-, industry- or product-level moderator effects.

REFERENCES


### TABLES AND FIGURES

<table>
<thead>
<tr>
<th>Constructs and indicators</th>
<th>Loadings</th>
<th>t-values</th>
<th>Cronbach’s alpha</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product-level CSR</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) The product differentiates itself from competitors’ products on the international market by bearing a social or environmental certification</td>
<td>0.871</td>
<td>30.646</td>
<td>0.916</td>
<td>0.7985</td>
</tr>
<tr>
<td>b) The product differentiates itself from competitors’ products on the international market by having been produced using supplies with a social or environmental certification</td>
<td>0.889</td>
<td>34.610</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) The product differentiates itself from competitors’ products on the international market by having a reputation of being environmentally responsible</td>
<td>0.921</td>
<td>71.148</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) The product differentiates itself from competitors’ products on the international market by having a reputation of being socially responsible</td>
<td>0.892</td>
<td>53.657</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Firm-level CSR</strong></td>
<td></td>
<td></td>
<td>0.853</td>
<td>0.7743</td>
</tr>
<tr>
<td>a) Our firm develops projects that protect the interests, demands and rights of minorities and/or those of the local community where we operate</td>
<td>0.763</td>
<td>16.169</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Our firm is recognized in Brazil as a leading firm in keeping socially and environmentally responsible practices</td>
<td>0.936</td>
<td>73.545</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Our firm is internationally recognized as a leading firm in keeping socially and environmentally responsible practices</td>
<td>0.929</td>
<td>76.439</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>International Market Orientation (IMO)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How do you assess the following competences of your firm, compared to the industry average?</td>
<td></td>
<td></td>
<td>0.892</td>
<td>0.6977</td>
</tr>
<tr>
<td>a) Marketing planning process</td>
<td>0.851</td>
<td>29.017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Effectiveness of product promotion</td>
<td>0.811</td>
<td>22.944</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Promotion of proprietary brand in the international market</td>
<td>0.776</td>
<td>17.188</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Ability to use marketing tools to differentiate this product</td>
<td>0.832</td>
<td>16.035</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e) Control and evaluation of marketing activities</td>
<td>0.902</td>
<td>36.644</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Export Intensity</strong></td>
<td></td>
<td></td>
<td>0.977</td>
<td>0.9572</td>
</tr>
<tr>
<td>a) percentage participation of exports to total sales in 2008</td>
<td>0.974</td>
<td>51.675</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) percentage participation of exports to total sales in 2007</td>
<td>0.990</td>
<td>77.018</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) percentage participation of exports to total sales in 2006</td>
<td>0.971</td>
<td>60.511</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table I – Measurement model
<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>S.D.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>CSR Firm</td>
<td>2.95</td>
<td>1.02</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>CSR Product</td>
<td>3.58</td>
<td>1.45</td>
<td>0.57</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>International Market Orient. (IMO)</td>
<td>3.66</td>
<td>0.92</td>
<td>0.28</td>
<td>0.40</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>R&amp;D dummy</td>
<td>.573</td>
<td>.49</td>
<td>0.04</td>
<td>0.06</td>
<td>0.15</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Export Intensity (2006-2008)</td>
<td>6.03</td>
<td>3.22</td>
<td>0.07</td>
<td>0.16</td>
<td>-0.03</td>
<td>-0.24</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Export Intensity x ESI</td>
<td>319.41</td>
<td>168.3</td>
<td>0.10</td>
<td>0.18</td>
<td>-0.02</td>
<td>-0.32</td>
<td>0.41</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Export Intensity x Devel. TargetCty</td>
<td>1.86</td>
<td>2.2</td>
<td>-0.18</td>
<td>-0.15</td>
<td>-0.13</td>
<td>-0.12</td>
<td>0.11</td>
<td>-0.07</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Developing Target Country</td>
<td>.3935</td>
<td>.37</td>
<td>-0.05</td>
<td>-0.14</td>
<td>0.00</td>
<td>-0.07</td>
<td>0.24</td>
<td>0.04</td>
<td>-0.03</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>ESI</td>
<td>53.51</td>
<td>4.70</td>
<td>0.01</td>
<td>-0.16</td>
<td>-0.02</td>
<td>0.23</td>
<td>-0.35</td>
<td>-0.20</td>
<td>-0.04</td>
<td>-0.09</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Certification</td>
<td>.29</td>
<td>.46</td>
<td>0.36</td>
<td>0.12</td>
<td>-0.02</td>
<td>-0.05</td>
<td>-0.03</td>
<td>0.04</td>
<td>-0.07</td>
<td>-0.19</td>
<td>0.11</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>GVC</td>
<td>7.95</td>
<td>4.60</td>
<td>0.12</td>
<td>-0.02</td>
<td>0.17</td>
<td>0.07</td>
<td>-0.09</td>
<td>-0.09</td>
<td>-0.08</td>
<td>0.07</td>
<td>0.33</td>
<td>0.07</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Industry (high / low value added)</td>
<td>26.71</td>
<td>10.53</td>
<td>0.31</td>
<td>0.15</td>
<td>0.04</td>
<td>0.14</td>
<td>-0.32</td>
<td>-0.15</td>
<td>-0.11</td>
<td>-0.16</td>
<td>0.13</td>
<td>0.25</td>
<td>0.09</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>MNC dummy</td>
<td>.79</td>
<td>.41</td>
<td>0.11</td>
<td>0.04</td>
<td>0.17</td>
<td>0.14</td>
<td>-0.30</td>
<td>-0.04</td>
<td>-0.18</td>
<td>-0.12</td>
<td>0.10</td>
<td>0.11</td>
<td>0.00</td>
<td>0.19</td>
<td>1.00</td>
</tr>
<tr>
<td>14.</td>
<td>Staff</td>
<td>717.54</td>
<td>1142.73</td>
<td>-0.15</td>
<td>-0.13</td>
<td>-0.08</td>
<td>0.10</td>
<td>-0.42</td>
<td>-0.33</td>
<td>0.72</td>
<td>-0.12</td>
<td>0.17</td>
<td>-0.08</td>
<td>-0.04</td>
<td>0.09</td>
<td>0.08</td>
</tr>
</tbody>
</table>

Note: correlations > 0.138 or < -0.138 are significant at 5%, correlations > 0.210 or <-0.210 are significant at 1%; S.D. = Standard Deviation
<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Path</th>
<th>Full Sample (n=195)</th>
<th>Split Samples ESI</th>
<th>Hypotheses</th>
<th>Split Samples ESI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Expect. Sign</td>
<td>Stand. Coeff.</td>
<td>t-value boots.</td>
<td>Low ESI (n=92)</td>
</tr>
<tr>
<td>H1a</td>
<td>R&amp;D</td>
<td>Product-level CSR</td>
<td>+</td>
<td>0.188</td>
<td>3.007</td>
</tr>
<tr>
<td>H1b</td>
<td>R&amp;D</td>
<td>Firm-level CSR</td>
<td>+</td>
<td>0.237</td>
<td>3.522</td>
</tr>
<tr>
<td>H2a</td>
<td>Export Intensity</td>
<td>Product-level CSR</td>
<td>+</td>
<td>0.164</td>
<td>2.096</td>
</tr>
<tr>
<td>H2b</td>
<td>Export Intensity</td>
<td>Firm-level CSR</td>
<td>+</td>
<td>0.052</td>
<td>0.647</td>
</tr>
<tr>
<td>H3a</td>
<td>Country X Export Intensity</td>
<td>Product-level CSR</td>
<td>-</td>
<td>-192</td>
<td>3.133</td>
</tr>
<tr>
<td>H3b</td>
<td>Country X Export Intensity</td>
<td>Firm-level CSR</td>
<td>-</td>
<td>0.017</td>
<td>0.135</td>
</tr>
<tr>
<td>H4a</td>
<td>ESI</td>
<td>Export Intensity</td>
<td>Product-level CSR</td>
<td>+</td>
<td>0.163</td>
</tr>
<tr>
<td>H4b</td>
<td>ESI</td>
<td>Export Intensity</td>
<td>Firm-level CSR</td>
<td>+</td>
<td>0.006</td>
</tr>
<tr>
<td>H5</td>
<td>Product-level CSR</td>
<td>Firm-level CSR</td>
<td>+</td>
<td>0.520</td>
<td>8.034</td>
</tr>
<tr>
<td>H6</td>
<td>Product-level CSR</td>
<td>Intl. Market Orient. (IMO)</td>
<td>+</td>
<td>-122</td>
<td>1.224</td>
</tr>
<tr>
<td>H7</td>
<td>Firm-level CSR</td>
<td>Intl. Market Orient. (IMO)</td>
<td>+</td>
<td>0.429</td>
<td>5.011</td>
</tr>
</tbody>
</table>

**Controls**

|            | Country | Product-level CSR | -0.027 | 0.415 | -0.223 | 2.346 | 0.146 | 1.455 | - |
|            | Country | Firm-level CSR | -0.095 | 0.709 | 0.212 | 1.195 | -3.08 | 1.721 | - |
| Certification | Product-level CSR | 0.396 | 6.518 | 0.368 | 3.723 | 0.427 | 4.825 | - |
| Certification | Firm-level CSR | 0.041 | 0.609 | 0.066 | 0.660 | -0.018 | 0.188 | - |
| MNC         | Product-level CSR | -0.031 | 0.480 | -0.172 | 1.513 | 0.079 | 0.836 | - |
| MNC         | Firm-level CSR | 0.082 | 1.235 | 0.115 | 1.358 | 0.092 | 0.996 | - |
| Size (log)  | Product-level CSR | -0.067 | 1.002 | 0.001 | 0.011 | -0.067 | 0.650 | - |
| Size (log)  | Firm-level CSR | 0.074 | 1.101 | -0.051 | 0.450 | 0.172 | 2.063 | - |
| ESI         | Product-level CSR | 0.053 | 0.813 | - | - | - | - | - |
| ESI         | Firm-level CSR | -0.030 | 0.456 | - | - | - | - | - |
| GVC         | Product-level CSR | -0.185 | 2.932 | -0.179 | 1.870 | -0.174 | 1.945 | - |
| GVC         | Firm-level CSR | 0.046 | 0.701 | 0.011 | 0.103 | 0.102 | 1.160 | - |
| Industry    | Product-level CSR | -0.102 | 1.444 | 0.039 | 0.350 | -0.212 | 2.205 | - |
| Industry    | Firm-level CSR | 0.076 | 1.092 | -0.001 | 0.011 | 0.120 | 1.206 | - |

|            | Product-level CSR | 0.327 | 0.438 | 0.297 |
|            | Firm-level CSR | 0.411 | 0.452 | 0.434 |
|            | International Market Orient. (IMO) | 0.139 | 0.076 | 0.219 |

Notes: p <0.05 for t-values above 1.98; p<0.01 for t-values above 2.57; bootstrapping with 1,000 re-samples with the sample size informed in brackets.

Table III – Path estimates
<table>
<thead>
<tr>
<th>Variable</th>
<th>Cluster I Low Product- &amp; Low firm-level CSR (n=60)</th>
<th>Cluster II High Product- &amp; Low firm-level CSR (n=50)</th>
<th>Cluster III Low Product- &amp; High firm-level CSR (n=45)</th>
<th>Cluster IV High Product- &amp; High firm-level CSR (n=59)</th>
<th>Kruskal-Wallis Chi² test</th>
<th>Sign. Cluster differences (Mann-Whitney test)</th>
</tr>
</thead>
<tbody>
<tr>
<td>International Market Orientation (IMO)</td>
<td>-0.26</td>
<td>-0.33</td>
<td>0.28</td>
<td>0.34</td>
<td>20,863</td>
<td>III&gt;I**, IV&gt;I**, III&gt;II**, IV&gt;II**</td>
</tr>
<tr>
<td>CSR Certification</td>
<td>0.12</td>
<td>0.38</td>
<td>0.24</td>
<td>0.44</td>
<td>17,424</td>
<td>II &gt; I**, III&gt;II, IV&gt;I *<em>, IV&gt;III</em></td>
</tr>
</tbody>
</table>

Note: sample size is larger (n = 210) as there are more observations available for these variables; * p< 0.05; **p<0.01,

Table IV – Cluster Analysis
Figure 1 – Conceptual Model

Figure 2 - Split-sample of low-ESI target countries