

When do multinational companies consider corporate social responsibility?

A multi-country study in Sub-Saharan Africa

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Abstract

While African countries are becoming more and more relevant as host countries for suppliers of multinational companies little is known about corporate social responsibility (CSR) in this region. To fill this gap, the present paper explores CSR considerations of foreign affiliates of multinational companies when choosing local African suppliers. The paper suggests a model of three types of determinants, namely firm characteristics, exports, and intra-trade. Analyses of a large-scale and quite unique firm level data for more than 2,000 foreign owned firms in 19 Sub-Saharan African countries demonstrate that firms importing intermediates from their parent company abroad are more likely to implement CSR. Similarly, CSR plays a larger role for affiliates that export to developed countries. Different determinants affect environmental and social CSR activities.

Keywords

Global supply chains, corporate social responsibility, multinational companies, Africa.

1 Introduction

In recent years, increasingly complex supply chains have emerged in order to exploit advantages of different production locations. On the one hand, extant literature suggests that multinational enterprises' local sourcing in developing countries provides potential benefits to host country suppliers. Transferring superior knowledge and working practices may lead to higher productivity and competitiveness of these firms (e.g. Godart and Görg, 2013, Kokko and Thang, 2014, Görg and Seric, 2015). On the other hand, concerns have been raised that, if multinationals focus on cost reductions in the local supplier, outsourcing of production activities to low-income countries undermines environmentally and socially responsible behavior. A striking example is the Rana Plaza building near Dhaka, Bangladesh, which collapsed due to structural failure. The accident caused the deaths of more than one thousand garment factory workers in April 2013 (BBC 2013). The factories housed there manufactured apparel for many international retailers, including Benetton, Carrefour and Walmart. Another negative example that gained publicity in January 2012 is the protest against poor working conditions of about 150 workers at the Chinese electronic company Foxconn, an important supplier for Apple, by threatening to commit suicide (The Telegraph 2012).

Fueled by the outlined recent tragedies alluded, the (un)ethical behavior of multinational companies operating in global supply chains has sparked much interest in the public debate and in academic circles. The question of corporate social responsibility (CSR) across global supply chains has to be extended beyond such high profile cases to general concerns about the physical and economic conditions of workers in the low-income links of supply chains. Therefore, the purpose of this paper is to explore the conditions under which local affiliates of multinational

companies operating in the host country consider CSR in their choice of suppliers. To the best of our knowledge, this question has not been fully addressed in the literature thus far. Indications are provided, for example, by Chapple and Moon (2005), who find for firms in Asia that multinationals are more likely to implement CSR than national firms. We do not look at differences between multinationals and national firms, but rather at differences between different types of multinational firms.

Additionally, we focus on Africa, instead of Asia, as this is a region that has so far been neglected in large-scale academic research (some positive exceptions focusing on Nigeria or Angola, for example, are Adegbite et al. 2013; Wiig and Kolstad 2010; see also Kolk and van Tulder 2010 for a literature review). While the African continent still attracts a relatively small share of world-wide foreign direct investments (FDI) recent developments indicate that FDI is becoming more relevant for the economies (Bartels et al. 2014). According to the UNCTAD *World Investment Report 2012*, the global share of FDI stock in Africa was two percent in 2009 with a net flow of FDI to the continent amounting to approximately 46 billion US\$ per year over the period 2009 to 2011. The increase in the size of the flows is also due to a significant expansion of South-South FDI (in particular intra-African FDI) flows along with those from emerging economies such as China, India, and other Asian countries. In 2011, for the first time greenfield FDI inflows originating from other developing economies were higher than those originating from developed economies (UNCTAD 2012). The African Development Bank's (ADB) *African Economic Outlook 2014* shows that Africa, similar to its position in terms of FDI, has currently a small but growing involvement in global supply chains. Its share in world-wide trade in value added, as a measure of the involvement in global supply chains, was 1.4 percent in 1995 and grew to 2.2 percent in 2011. While this is still not particularly high (it is 5.9 percent in Europe

and 11.8 percent in North America in 2011), the trend is certainly upwards (African Development Bank 2014). The ADB publication also shows that the erosion of social and environmental standards to attract investment is considered one of the greatest threats associated with global supply chains.

Based on a large and quite unique firm level data set, this paper investigates empirically whether CSR considerations are important for foreign multinationals in their choice of local suppliers in African host countries. We make at least three contributions to the literature. First, we investigate in detail the role of the involvement in global supply chains for the choice of local suppliers. Based on the CSR literature on the firm perspective (e.g., Boehe and Cruz, 2010, Fernandez-Kranz and Santalo, 2010, Seuring and Müller 2008; Siegel and Vitaliano, 2007), we model the implementation of CSR considerations as a function of firm characteristics, export activities, and intra-firm trade. Second, Roberts (2003) alludes a lack of evidence on distinguishing environmental and social CSR aspects and argues that conclusions from one aspect may not necessarily be in line with the other one. A contribution of our paper is that we attempt to explicitly distinguish the drivers of environmental and social supply concerns. Third, by focusing on multinationals operating in Sub-Saharan Africa, we highlight a region which so far has been neglected in the empirical literature, but which is becoming more and more relevant. We analyze firm level data of more than 2,000 firms in 19 Sub-Saharan African countries on the sourcing decisions of affiliates of foreign multinationals.

The remainder of the paper is organized as follows. First, we outline the conceptual background and develop our hypotheses. Second, we introduce the data of the large-scale firm-size data. Next, we present the empirical analysis and discuss the results. Finally, some conclusions and policy implications are provided.

2 Conceptual Background

2.1 Corporate Social Responsibility

McWilliams and Siegel (2001, 117) define CSR as “actions that appear to further some social good, beyond the interests of the firm and that which is required by law” and in a more recent publication they consider CSR as “the private provision of a public good” (McWilliams and Siegel 2011, 1481). The literature provides different paradigms for why firms may get involved in CSR. Some scholars consider CSR as firms’ implicit compliance with business norms set by societies (Matten and Moon, 2004). Others argue that firms engage in CSR to reduce the negative externalities imposed on societies in which they operate (Crouch, 2006). The most conventional view builds on the stakeholder approach (Freeman 1984). It essentially argues that NGOs, the media, consumers, and other stakeholders expect and urge firms to conform to ethical standards in their production. To alleviate such pressures, firms may invest in CSR activities (e.g., Locke et al., 2009; Park et al. 2014, Zheng et al. 2015). Not doing so may have adverse consequences for a firm’s reputation and ultimately success on the market place.

While there may be intrinsic reasons for CSR, many economic and management scholars consider CSR from a strategic viewpoint (Baron 2001, 17), asking how CSR can create a competitive advantage for the firm (McWilliams and Siegel, 2011). From this cost/benefit-perspective it is relevant to ask whether firms that engage in CSR outperform firms that are not doing so. Accordingly, scholars have extensively considered motives and boundary conditions of CSR engagement as well as the effects of CSR on firm performance (Rao and Holt 2005; see meta-analysis of Aguinis and Glavas 2012), and in particular on financial performance (see Wang et al. 2015 for a recent meta-analysis). Some researchers even search for the ideal level of

CSR investment. McWilliams and Siegel (2001), for example, provided a theoretical model of CSR from the firm perspective that discusses different factors that influence the level of CSR. For example, due to information asymmetries, the use of CSR as a differentiation strategy to increase customer value is dependent on the type of product (experience or credence good vs. search good; Siegel and Vitaliano, 2007). The present paper primarily builds on McWilliams and Siegel's approach to suggest an extended conceptualization of CSR in global supply chains with a special focus on Sub-Saharan countries.

2.2 Corporate Social Responsibility in Global Supply Chains

Extant literature has considered the role of CSR in global supply chains (Carter and Easton 2011; Gold et al. 2010; Suering and Müller 2008). In particular, Lund-Thomsen and Lindgreen (2014) and Crifo and Sinclair-Desgagné (2014) provide excellent background papers to the development of CSR in global supply chains in the economics and business literatures. Lund-Thomsen and Lindgreen (2014) argue that there are two conceptual approaches towards understanding CSR practices. The first is the so called "compliance paradigm". In line with the stakeholder approach, it argues that the media, consumers, NGOs and others can apply pressure to companies if they fail to establish ethically responsible production techniques. Hence, companies tend to establish CSR related practices in order to appease stakeholders and further the reputation of the company in the public's eye (see also Maignan et al., 2004). If the compliance paradigm applies the target market of the products may largely define the type and level of CSR. The second and more recent conceptual approach is the "cooperation paradigm", which assumes that multinational companies are intrinsically motivated to actively cooperate with local suppliers and aid and support them to establish environmentally friendly and socially acceptable pro-

duction techniques in their firms. The intrinsic motivation may be largely defined by the values shared in the origin of the multinational enterprises.

Much of the empirical work on CSR in global supply chains looks at case study evidence. For example, Andersen and Skjoett-Larsen's (2009) study the Swedish furniture manufacturer IKEA, while Roberts (2003) looks at companies in three industries, namely forest products, branded clothes, and branded confectionary. These studies highlight the importance of reputation and public pressure to improve corporate social responsibility in firms. The IKEA case study furthermore showed the advantages of implementing CSR within the entire organization. While such case studies are highly informative in that they provide a vast amount of very detailed information, drawing generalizations is difficult as the cases tend to be highly specific.

3 Conceptual Model

3.1 Overview

This paper proposes a conceptual model of factors that influence whether or not CSR is a relevant criterion for multinational companies for choosing suppliers in developing countries (Figure 1). We organize the influencing factors in three categories, namely firm characteristics, exports, and intra-firm trade. Additionally, we assume that some factors interact, and we propose, that the effects on environmental and social CSR differ.

Insert Figure 1 about here

3.2 Firm characteristics

Some of the firm characteristics that we discuss are derived from McWilliams and Siegel's (2001) supply and demand theory of the firm's perspective on CSR. We adapt this approach to the context of CSR in global supply chains and extend it by several new factors. In

accordance with the stakeholder approach, McWilliams and Siegel (2001) expect that consumers, co-workers and others ask for CSR and that the firm can benefit from CSR initiatives. However, from the supply-side perspective and according to the resource-based view, CSR involvement is often costly as firms need to devote resources to implementing CSR activities. McWilliams and Siegel (2001) argue that many of these additional costs due to CSR are fixed, leading to scale economies. For example, implementation of CSR may necessitate employing additional staff and new human resources management practices, which are headquarter activities with costs that are not dependent on output. Additionally, new capital investments may be necessary (think of new machines that are able to achieve higher environmental standards) which are again largely fixed. Furthermore, CSR might involve having to purchase intermediate inputs from more expensive local suppliers, and while these costs are not strictly speaking fixed, large firms may be able to obtain quantity discounts, again implying economies of scale at the level of the firm. Hence, due to economies of scale, the relation of the benefits of CSR compared to the costs of CSR initiatives is more favorable for large firms.

H1 Firm size is positively related to CSR considerations in the choice of local suppliers.

Our second assumption also builds on McWilliams and Siegel (2001) as they were among the first to highlight that product differentiation is important when thinking about implementing CSR. If a firm uses CSR to differentiate its product this may necessitate investing in research and development. For example, implementing environmentally friendly production techniques, or organically produced crops require some R&D related activities to upgrade production processes or conduct product innovation. This link between R&D and CSR is confirmed empirically by Siegel and Vitaliano (2007), Fernandez-Kranz and Santalo (2010) and Padgett and Galan (2010).

H2 The intensity of R&D and technology upgrading activities in a firm are positively correlated with CSR considerations in the choice of local suppliers.

A third aspect that we adapt from McWilliams and Siegal (2001) is the role of advertising. Many consumers demand goods and services that have environmentally or socially responsible attributes. Thus, CSR attributes may enhance the reputation of a particular brand and firm in the eyes of the consumers (Roberts 2003; Seuring and Müller 2008). From a strategic viewpoint, CSR helps firms to differentiate from competitors (Boehe and Cruz 2010), to create new demand or to ask for premium prices (McWilliams and Siegal 2001). As these positive effects require that the consumer is aware of the CSR investment, the firm must engage in marketing and advertising. Hence, we assume a positive correlation between a firm's advertising intensity and CSR engagement. There is an additional argument for this positive relationship. Companies with a strong advertising intensity are usually more strongly observed by various stakeholders, such as non-governmental organizations, which raise attention for the firm's irresponsible behavior. CSR initiatives help to appease these stakeholders. Accordingly, Servaes and Tamayo (2013) report a positive relationship between CSR and firm value for companies with high customer awareness operationalized via advertising expenditures.

H3 Advertising expenditure is positively related to CSR considerations in the choice of local suppliers.

While the first three hypotheses build on McWilliams and Siegal's (2001) framework, we now extend the model considering factors that may be particularly relevant for CSR along the supply chain with suppliers located in developing countries. One of these factors is the origin of

the multinational company. According to the stakeholder approach, non-governmental organizations, the media, the government, actual and potential co-workers etc. play an important role for CSR considerations. These influences are presumably stronger in developed countries. For example, companies use CSR initiatives to present themselves as attractive employers in industries with a shortage of skilled workers (McWilliams and Siegel 2001). Extant studies support this assumption that firms located in more developed countries face stronger stakeholder expectations for CSR. For instance, there are indications that CSR of Chinese companies is less developed than CSR of Western companies (Gao, 2009) and CSR acceptance in European countries is currently superior to the US, which is ahead of Asian countries (Bird et al., 2012; Welford, 2005; Tian et al., 2011).

H4 Firms headquartered in developed countries are more likely to consider CSR in their choice of local suppliers than firms not headquartered in developed countries.

Furthermore, we also consider the role of autonomy of the local affiliate. Andersen and Skjoett-Larsen (2009) argue that a successful implementation of CSR requires that it is embedded within the entire company. Since it is the reputation of the entire company that suffers if consumers are worried about ethical issues, the entire company must implement such a CSR policy. Accordingly, stronger CSR implementation should be associated with less autonomy on the part of the local affiliate.

H5 The level of autonomy on the part of the local affiliate in terms of sourcing decisions is negatively related to CSR considerations in choice of local suppliers.

3.3 *Exports*

Similar to our rationale for the positive correlation of CSR engagement with product differentiation (Boehe and Cruz 2010), advertising intensity, and reputation (Roberts 2003), we hypothesize that exporting is relevant for CSR considerations. The positive signaling effect of CSR may be even more important if the firm competes on the world market rather than just on a closed small domestic market. International customers may be particularly concerned about products that are produced environmentally-friendly and in accordance to socially responsible standards.

H6 Exporters are more likely to consider CSR in their choice of local suppliers than non-exporters.

We assume that the destination of the exports determines the level of CSR engagement. Consumers in developed countries are presumably more prone to environmental and social concerns and therefore more likely to demand products that are produced to ethical standards (Boehe and Cruz 2010). Previous research by Tian et al. (2011) shows that Chinese consumers pay less attention to CSR than consumers in developed countries. One reason for this is that more affluent consumers are less responsive to prices and therefore may be more willing to pay a higher price for products of firms that engage in CSR (McWilliams and Siegel 2001). Following the post-materialism-thesis, we assume the more wealthy nations are more likely to show post-materialistic rather than materialistic value orientations, which include care for the natural and social environment (Inglehardt 1997). If consumers in developed countries pay more attention to CSR, firm's exporting to developed countries may adjust to these demands, and are thus more likely to engage in CSR.

H7 Firms exporting to developed countries are more likely to consider CSR in their choice of local suppliers than firms not exporting to developed countries.

3.4 Intra-Firm Trade

While the first-tier supplier often gains most attention, CSR along the supply chain requires considering a wider perspective (Seuring and Müller 2008). Roberts (2003) argues that the size and complexity of the supplier network plays an important role for firms' decisions to implement CSR. Firms may be more likely to implement CSR in the immediate links in the network. In long and complex supply chains, public interest may focus on the supplier of the closest (in terms of production stage) and most important input. Roberts (2003) illustrates this by the production of clothing and footwear. Here the consumers' concern is mostly related to the fate of workers in the garment manufacturers (as in Rana Plaza) while other stages of the production chain which are further downstream (e.g., the production of raw cotton) are not generally considered or only to a lesser extent. Related to this point, Roberts (2003) also argues that CSR considerations are stronger if the supply network is not too diffuse (i.e., if it does not involve too many players). In this case, it is easier for a producer to implement ethical sourcing given that not too many suppliers are part of the network. If an affiliate imports intermediates from the parent and combines these with local inputs, the link in the supply chain is very immediate. In this case, the local affiliate may be more likely to source ethically in the host country.

H8. If the supplier is integrated in the MNEs global supply chain through importing inputs from the parent then the parent more likely considers CSR in the choice of local suppliers.

We also expect more CSR engagement if the product is subsequently exported for final consumption in a developed country (see H7). However, this effect may be less important if the good is exported back to the parent company again for further processing, as this adds at least one more production step and hence enlarges the supply network.

H9. If the supplier is integrated in the MNEs global supply chain through exporting to the parent then the parent is less likely to consider CSR in the choice of local suppliers.

3.5 Interactions

We consider the interactions of two sets of variables. The first set are firm and industry characteristics, including advertising intensity, headquarter (developed vs. developing countries), and industry sector (extractives vs. manufacturing and services). The second set consists of export and intra-trade characteristics: Destination of exports (developed countries or other countries), intra-firm imports, intra-firm exports. Given the wide set of possible interactions, we do not derive specific hypotheses here, but leave the question open to an explorative empirical analysis.

3.6 Social and Environmental CSR

According to the triple bottom line concept CSR consists of ecological and social aspects in addition to economic aspects (Aguinis and Glavas 2012; Carter and Easton 2001; Dyllick and Hockerts 2002; Gold et al. 2013; Gonzalez-Rodriguez et al. 2015). Consequently, the European Commission (2011) defines CSR as “a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis”. A contribution of our paper is that we attempt to distinguish the drivers of

environmental and social supply concerns separately, as this is generally not done in the literature. Roberts (2003) alludes to this lack of evidence on distinguishing environmental and social CSR aspects and argues that “I suspect the conclusions from environmental supply initiatives would also hold true in this [i.e., socially focused supply initiatives] case.” We suggest that different motives may be driving these two different aspects of CSR. Again, as there may be several interactions, we leave this question also open to an explorative empirical analysis.

4 Design

4.1 Data Description

We use unique firm-level data collected through the UNIDO Africa Investor Survey 2010 across 19 Sub-Saharan Africa countries (Table 1). We use the Foreign Investor Survey data, which contain a rich set of information on a large sample of foreign owned firms. The collection of the dataset followed a rigorous survey methodology in terms of stratified sampling (on three dimensions: sector, size and ownership) in order to construct a sample of firms that is representative of public and private for profit firms with 10 or more employees within the countries. An oversampling of relatively large firms (> 100 employees) has been adopted. The firms were then interviewed by highly-trained enumerators using face-to-face interviews with top-level managers of foreign-owned firms. Overall, 2,113 foreign-owned firms participated in the survey. The data has been used for former analysis of FDI in Africa (e.g, Görg and Seric, 2015, Amendolagine et al., 2013), but not yet with a focus on CSR. More details on the Africa Investor Survey 2010, the sampling procedure and quality assurance measures are provided in UNIDO (2011).

Insert Table 1 about here

4.2 Formal Model

Based on the outlined hypotheses, we estimate the following model empirically

$$Pr(CSR=1)_i = \alpha FIRM-CHARACTERISTICS_i + \beta EXPORTS_i + \gamma INTRA-TRADE_i + d_j + \varepsilon_i$$

where the dependent variable (*CSR*) is a dummy variable equal to one if a firm implements CSR sourcing strategies, which we define in more detail in the next section. Additionally, we run separate models for environmental CSR and social CSR. The vector *FIRM-CHARACTERISTICS* includes measures of firm size (defined as total assets), technology intensity (expenditure on R&D and other investment in technology relative to sales), and advertising intensity (expenditure on advertising relative to sales). It additionally includes a dummy variable equal to one if the affiliate is headquartered in a developed country (includes the EU, the US, and other countries, such as Switzerland, Norway, Australia, South Korea etc.). Finally, the vector includes a dummy variable of autonomy equal to one if the affiliate reports that it has “dominant” or “absolute” decision making power over supplier selection. (Zero includes the answers „all decisions come from headquarters“, local affiliate has “minor“ or “equal” power in decision making.) The vector *EXPORTS* includes two dummies, one which is equal to one if the firm exports any of its output and a second dummy equal to one if the firm exports to developed countries (operationalized as US and EU). *INTRA-TRADE* is a vector that includes two dummy variables that capture whether a firm engages in intra-firm imports (i.e., imports intermediate inputs from the parent company), and whether a firm engages in intra-firm exports. Finally, d_j includes a full set of industry and country dummies which control for unobserved industry and country characteristics as, for example, competition in an industry may play a role for a firm’s decision to implement CSR (Fernandez-Kranz and Santalo, 2010).

4.3 Measurement of CSR

CSR engagement was measured by the multinationals' self-reported reasons for choosing local suppliers (survey question: "*What is the most important factor that influences the decisions for local procurement?*"). Based on the available options, which are displayed in Table 2, we define a dummy variable *CSR* equal to one if a firm ticks the option "environmental responsibility" or "corporate commitment to local supplier development in the region". These are arguably aspects of firms' considerations about corporate social responsibility. The first option captures environmentally responsible sourcing while the second option encompasses social concerns about suppliers, including working conditions, wages and sustainable development of the supplier.

The survey design forced the respondents to tick only one box representing the most important reason for the sourcing decision. We acknowledge that this is a very strict definition of implementation of CSR considerations in local sourcing by foreign multinationals. It captures firms that arguably place a very high emphasis on CSR in their corporate culture. It is of course possible that firms that do not report environmental or social concerns as the most important reason may still be concerned about CSR. Hence, our analysis is rather conservative and only picks up strong CSR implementers.

As shown in Table 2 approximately five percent of the firm consider environmental concerns or local supplier development as the main reason for their choice of suppliers. Among foreign affiliates located in African countries, ethical sourcing is not the most important aspect in the choice of local suppliers. While this does not rule out the possibility that CSR does play a role – though not the most important – it does reflect the fact that price and quality considera-

tions (i.e., access to raw materials, logistics, local market acceptability) are the main concerns when choosing local suppliers.

Insert Table 2 about here

5 Results

5.1 Descriptive Statistics

Table 3 distinguishes different types of firms to illustrate that the propensity to implement CSR differs according to some firm characteristic. The origin of the headquarter is seemingly irrelevant, while firms engaged in intra-firm trade and exports, especially to developed countries, are more prone to implementing CSR. These descriptive statistics provide first support for our hypotheses concerning the role of exporting and global supply chains developed above. Not the location of the headquarters per se, but the sales market seems to influence the firm's CSR engagement.

Moreover, the industry-sector is seemingly relevant. Firms in extractive industries are more likely to implement CSR than firms in other manufacturing or services industries. This may reflect the role of reputation for the goods produced by such firms in mining or petroleum industries, where consumers may be particularly concerned about social and environmental implications of their consumption. Of course, these summary statistics only provide crude correlations and do not control for other important variables that may drive the relationship between CSR and global supply chains. To take those into account, we now report the results from estimations of the empirical model developed above.

Insert Table 3 about here

5.2 *Main Effects on CSR*

Table 4 presents the results from the estimations of equation (1). To establish a set of benchmark results, we report estimations including firm characteristics and only an export dummy in Model A-1. In the further analysis, we focus on the role of global supply chains. We subsequently add a dummy variable for firm exports to developed countries in Model A-2. Model A-3 includes dummies for intra-firm imports and exports, to proxy for the immediacy and diffuseness of the supply network. All regressions also include a full set of industry and country dummies and a constant which are not reported here to save space. The model is estimated using simple OLS regression.¹

Results show that, of the firm characteristics included in the model, advertising intensity and autonomy over sourcing decisions exert statistically significant effects. Both of these are positively related to the decision to implement CSR. For advertising, this is in line with our hypothesis. CSR activities need to be accompanied by advertising to strengthen their reputation. Yet, based on Andersen and Skjoett-Larsen (2009), we expected that autonomy and CSR are negatively related, as CSR should be embedded within the whole company to be most effective. In contrast, the results indicate that affiliates that have autonomy over the choice of local supplier, and where sourcing decisions are not taken by headquarters abroad, are more prone to implementing CSR. This may reflect the local knowledge of the foreign affiliate, which has better knowledge about environmental and social conditions at local suppliers than the headquarter. They may, therefore, be more concerned about the situation in the host country and more likely to implement ethical sourcing.

¹ Since the dependent variable is a 0-1 dummy variable this implies that we have a linear probability model. Estimating the model using a probit estimator does not change results. Hence, we report here the OLS estimations where coefficients can be interpreted easily. Results of the probit estimation are available upon request.

Note that firm size and the origin of the headquarter (developed vs. developing country) show the expected positive association with CSR, but the coefficients are not statistically significant. Against our expectations, there is no effect of technology intensity. Furthermore, we find that exporting *per se* is not related to implementing CSR. What matters, however, is whether a firm exports to a developed country. If they do, they are more likely to implement CSR sourcing. This is in line with our hypothesis that CSR is related to improving the reputation of the firm and that consumers in developed countries are more likely to care about social and environmentally responsible behavior.² Model A-3 also indicates that exporting back to the parent company is not important for implementing CSR. What does matter, however, is that the firm imports from the parent. This suggests that the immediacy of the local supplier in the supply network is important for ethical sourcing.

Putting these results together we find that the chain that matters most for CSR sourcing is where intermediates are imported from the parent, are then combined with other local inputs, and exported back to developed countries. This means that then there will be a short supply chain, where the locally sourced input feeds in immediately into the product that is being produced and then sold abroad.³

Insert Table 4 about here

² Remember that the export variables are defined as dummies. In our data we also have export value. Defining the variables as export ratios relative to output does not change the results, hence we report the results based on dummy variables here.

³ We can also control for total import activity or importing from developed countries, similar to our export variables. However, this does not change any of the results; the coefficients are statistically insignificant. As it is not clear why these variables should matter for CSR and in order to keep the model as parsimonious as possible, we do not include them in the main regressions.

5.3 *Interaction Effects*

In the next step, we analyze plausible interactions of some firm characteristics with export and intra-trade aspects. Model A-4 considers firms that are headquartered in developed countries. Indeed, the positive relationship between intra-firm imports and CSR only holds for firms located in a developed country. This again underlines the argument that consumers in developed countries are more concerned about CSR issues when purchasing their products. Hence, firms located in developed countries are also more likely to implement these when they are engaged in intermediate supply chain links.

In Model A-5, we focus on the advertising intensity of the firm. The assumption that the relationship between global supply chain variables and CSR increases with the advertising intensity is not borne out by the evidence; the interaction terms are all statistically insignificant.

A final moderator variable is the industry-sector (Model A-6). In particular, we may expect that firms in the extractives sector are different from those in manufacturing and services. The interaction terms support this assumption. The positive association between intra-firm imports and CSR is much stronger for extractives than for other sectors, as indicated by the positive interaction term. Also, we find that firms in the extractives sector are less likely to implement CSR when they export back to the parent company, while this variable is not associated with CSR for firms in other sectors. This may indicate that the intermediacy of the supply link is even more important in extractives. If the output produced by the affiliate is not exported to the final consumer, but exported to the parent for further processing, then ethical sourcing is not important.

5.4 *Comparison of Environmental and Social CSR*

In this section, we explicitly distinguish effects on environmental CSR (Table 5) and social CSR (Table 6). Model B-1 includes the baseline model, now only for environmental CSR as dependent variable. Exporting to developed countries is again associated positively and statistically significantly with environmental sourcing behavior. However, intra-firm imports do now not matter, while intra-firm exports are negatively associated with environmental CSR. In other words, a firm is less likely to worry about environmental sourcing concerns when it exports back to the parent company. As argued above, this may reflect that in this case the global supply chain is not immediate but that further production steps are taken in the home country of the parent company, and possibly in other locations. Hence, the immediacy is lost and therefore the firm is less concerned about environmental issues in the sourcing of the input locally. Quite surprisingly, we now also find that autonomy and advertising expenditure do not matter for the CSR decision.

Insert Table 5 about here

Finally, we focus on social CSR. Here, results are comparable to the overall results we reported above. Firms that are engaged in intra-firm imports are more likely to implement CSR, as are firms that have more autonomy and that spend more on advertising. By contrast, we now find that exporting to a developed country is not associated with higher CSR affinity.

Insert Table 6 about here

In sum, the analysis reveals that environmental and social elements of CSR are not necessarily governed by the same drivers. While exporting to developed countries, and hence the reputational effects of CSR in developed countries, appears important for environmental CSR,

the immediacy of the supply chain appears more important for the implementation of social concerns. If the affiliate has power over the choice of suppliers, and if it combines inputs imported from the parent with locally sourced inputs, then social considerations play a larger role. These decisions to implement social sourcing behavior interact with high advertising expenditure, which are used to signal the social aspects of sourcing to potential and actual customers.

6 Conclusions

This paper pinpoints the importance of CSR considerations in the decision taken by a foreign affiliate of a multinational company about the choice of local suppliers. As a first contribution, this paper suggests and empirically validates a model of determinants, which are structured as firm characteristics, exports, and intra-trade. The empirical study reveals relevant drivers and so far unexplored interactions in the prediction of CSR engagement. Secondly, the results reveal that the determinants of environmental and social CSR activities are different. This as well has not been shown in previous work to-date. The third contribution of the paper is to provide empirical findings from a region of the world that is under-researched and of growing relevance.

One of the insights with practical implications is the finding that firms are more likely to implement CSR if they spend more on advertising. This finding is in line with literature demonstrating that customers are concerned about ethical issues and that firms aim to advertise their CSR activities correspondingly. As regards the role of global supply chains, the paper demonstrates that firms importing intermediates from their parent company abroad are more likely to implement CSR. Similarly, CSR plays a larger role for affiliates that export their output to developed countries. This finding suggests that the immediacy of the production chain, where intermediate inputs are imported from the headquarter and are then processed, together with

locally sourced inputs, into a final good which is then exported for consumption in developed countries, provides a strong link to CSR. This supports the case study findings by Roberts (2003) who argues that CSR is more important if the supply chain is short and direct. We show that similar arguments may apply in the case of global supply chains as well. We also detect that local affiliates are more likely to implement CSR if they are autonomous in their decision process (i.e., if the local suppliers are not chosen by the headquarters of the affiliate abroad). This may reflect the fact that local affiliates have better knowledge about the local conditions and may be more concerned about implementing ethical standards locally than a headquarter located abroad may be.

Overall, our findings highlight that there is certainly scope for improvement when it comes to CSR activities in supply chains involving multinationals and local suppliers in Sub-Saharan African countries. Implementing these may be particularly important for multinationals selling output in developed countries, where consumers are likely to be more discerning and to put greater value on ethical sourcing than in developing countries.

This paper implemented an admittedly quite stringent definition of a CSR engagement, namely whether environmental or social concerns are the most important determinant of the local supplier choice. Based on this operationalization, only very few firms implement any CSR at all. This finding presumably understates the true importance of CSR, as firms may consider CSR as one, but not as the main, motive for choosing a local supplier. Future research may test the robustness of our study with another operationalization of CSR.

7 References

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Figure 1. Conceptual model

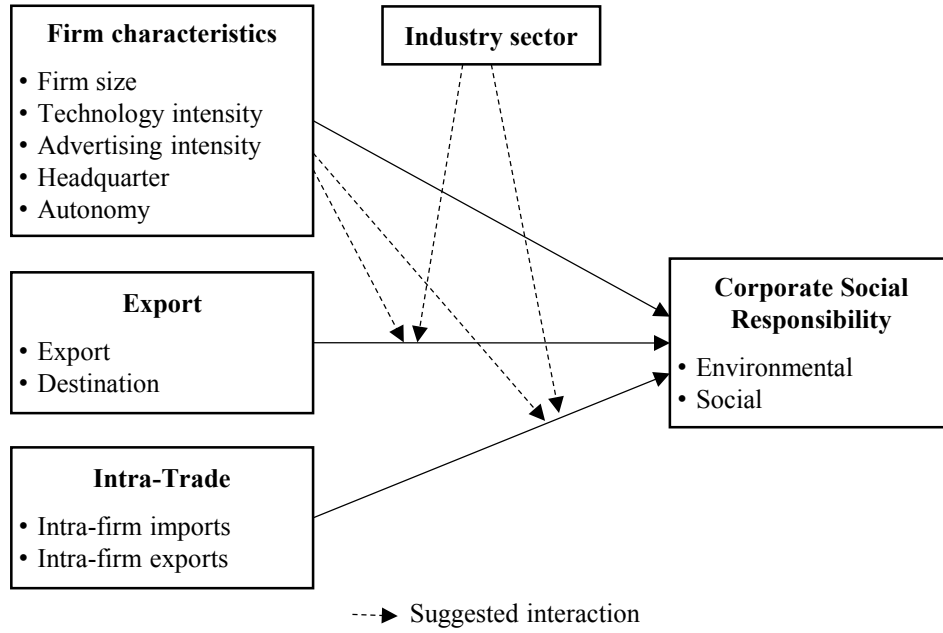


Table 1. Sample description

	n	Ln (Employment size)	Headquarter in developed countries (in %)	Exporter (in %)	Exporter to developed countries (in %)	Intra-firm trade (in %)
Burkina Faso	14	3.60	28.6	28.6	0.0	28.6
Burundi	32	3.95	46.9	34.4	3.1	12.5
Cameroon	120	4.17	62.5	27.5	10.0	21.7
Cape Verde	92	3.24	37.0	4.4	4.4	21.7
Ethiopia	118	4.31	47.5	26.3	18.6	17.8
Ghana	159	3.84	41.5	27.7	10.1	17.0
Kenya	283	4.61	54.4	56.2	25.1	26.9
Lesotho	63	4.98	6.4	60.3	36.5	31.8
Madagascar	115	8.83	53.9	33.0	29.6	20.9
Malawi	35	4.21	37.1	22.9	2.9	34.3
Mali	83	3.86	41.0	21.7	3.6	15.7
Mozambique	122	4.05	18.9	3.3	1.6	9.8
Niger	15	3.52	26.7	13.3	0.0	13.3
Nigeria	91	4.60	36.3	13.2	1.1	17.6
Rwanda	52	3.72	40.4	26.9	7.7	15.4
Senegal	85	3.71	70.6	40.0	12.9	22.4
Tanzania	138	4.18	29.7	31.9	3.6	20.3
Uganda	380	3.81	27.9	33.4	8.7	18.4
Zambia	90	4.28	31.1	30.0	5.6	16.7

Table 2. Main reason for choosing supplier in Africa

Main reason for choice of supplier	Percentage
Raw materials	24.23
Logistics	16.54
Closer supplier relationship	8.85
Reduced tariff	8.11
Local content	1.75
Fiscal or tax efficiency	1.74
Improved acceptability	1.34
Local supplier development	3.80
Environment	1.82
Other	13.81

Table 3. CSR choice and firm characteristics

	Headquarter		Intra-firm trade		Exporter		Exporter to developed country		Extractives	
	developed country	developing country	yes	no	yes	no	yes	no	yes	no
Total number	840	1270	421	1689	658	1452	251	1859	101	2009
CSR (in %)	6.0	4.9	8.6	4.5	9.6	3.4	9.5	4.7	6.0	5.3

Table 4. Drivers of CSR engagement

	Model A-1	Model A-2	Model A-3	Model A-4	Model A-5	Model A-6
Constant	.01500 (-.0387)	.0036 (-.0389)	.000113 (-.0390)	.00551 (-.0391)	.00168 (-.0390)	.0172 (-.0432)
Firm size	.00269 (-.00193)	.00259 (-.00193)	.00221 (-.00193)	.00204 (-.00194)	.00204 (-.00194)	.00234 (-.00193)
Technology intensity	-.0189 (-.0303)	-.0232 (-.0303)	-.0268 (-.0303)	-.0278 (-.0303)	-.0265 (-.0303)	-.0274 (-.0302)
Advertising intensity	.117** (-.0428)	.117** (-.0428)	.116** (-.0427)	.115** (-.0427)	.147** (-.0490)	.116** (-.0426)
Headquarter ¹	.00708 (-.00822)	.00482 (-.00825)	.00493 (-.00824)	-.00282 (-.00919)	.00522 (-.00825)	.00483 (-.00822)
Autonomy	.0149 (-.0107)	.0170 (-.0108)	.0238* (-.0112)	.0227* (-.0112)	.0239* (-.0112)	.0213+ (-.0112)
Export	.000364 (-.0101)	-.0109 (-.0110)	-.00976 (-.0113)	-.00858 (-.0113)	-.00921 (-.0113)	-.0114 (-.0112)
Destination of export ¹		.0411* (-.0159)	.0432** (-.0162)	.0438* (-.0214)	.0436** (-.0166)	.0410* (-.0175)
Intra-firm imports			.0310** (-.0113)	.0120 (-.0142)	.0326** (-.0114)	.0216+ (-.0115)
Intra-firm exports			-.0140 (-.0165)	-.0240 (-.0219)	-.0122 (-.0168)	.0124 (-.0180)
Headquarter * destination of export				-.00628 (-.0270)		
* intra-firm imports				.0480* (-.0219)		
* intra-firm exports				.0210 (-.0324)		
Advertising intensity * destination of export					-.140 (-.361)	
* intra-firm imports					-.100 (-.111)	
* intra-firm exports					-.143 (-.222)	
Industry sector ² * destination of export						.00474 (-.0391)
* intra-firm imports						.113* (-.0503)
* intra-firm exports						-.138** (-.0423)
R-squared	.086	.089	.093	.095	.094	.100

Notes. N = 2,087. Dependent variable: CSR (general). Standard errors in parentheses. Regression includes country and industry dummies, and a constant term; ** p < .01, * p < .05, + p < .10. ¹0 = developing countries, 1 = developed countries, ²0 = manufactured goods and services, 1 = extractives.

Table 5. Drivers of environmental CSR engagement

	Model B-1	Model B-2	Model B-3	Model B-4
Constant	.0373+ (-.0227)	.0391+ (-.0227)	.0372 (-.0227)	.0382 (-.0252)
Firm size	-.0013 (-.00112)	-.00132 (-.00113)	-.00128 (-.00113)	-.00126 (-.00112)
Technology intensity	.000312 (-.0176)	-.000243 (-.0176)	.000096 (-.0176)	-.00012 (-.0176)
Advertising intensity	.0109 (-.0248)	.0113 (-.0248)	.00226 (-.0285)	.0104 (-.0248)
Headquarter ¹	-.000691 (-.00479)	-.00229 (-.00535)	-.000756 (-.0048)	-.000852 (-.00479)
Autonomy	.00736 (-.00652)	.00696 (-.00652)	.00726 (-.00653)	.00641 (-.00652)
Export	-.00353 (-.00655)	-.00344 (-.00657)	-.00361 (-.00656)	-.00419 (-.00655)
Destination of export ¹	.0304** (-.00942)	.0350** (-.0124)	.0295** (-.00965)	.0260* (-.0102)
Intra-firm imports	.00564 (-.00654)	-.00160 (-.00829)	.00525 (-.00661)	.00300 (-.00672)
Intra-firm exports	-.0250** (-.00958)	-.0236+ (-.0128)	-.0247* (-.00974)	-.0143 (-.0105)
Headquarter				
* destination of export		-.00826 (-.0157)		
* intra-firm imports		.0178 (-.0127)		
* intra-firm exports		-.00244 (-.0188)		
Advertising intensity				
* destination of export			.108 (-.210)	
* intra-firm imports			.0328 (-.0643)	
* intra-firm exports			-.00692 (-.129)	
Industry sector ²				
* destination of export				.0231 (.0228)
* intra-firm imports				.0247 (-.0293)
* intra-firm exports				-.0573* (-.0246)
R-squared	.040	.041	.040	.043

Notes. N = 2,087. Dependent variable: Environmental CSR. Standard errors in parentheses. Regression includes country and industry dummies, and a constant term; ** p < .01, * p < .05, + p < .10. ¹0 = developing countries, 1 = developed countries, ²0 = manufactured goods and services, 1 = extractives.

Table 6. Drivers of social CSR engagement

	Model C-1	Model C-2	Model C-3	Model C-4
Constant	-.0372 (-.0323)	-.0336 (-.0324)	-.0355 (-.0323)	-.0210 (-.0358)
Firm size	.00351* (-.0016)	.00336* (-.00161)	.00331* (-.00161)	.00361* (-.0016)
Technology intensity	-.0271 (-.0251)	-.0276 (-.0251)	-.0266 (-.0251)	-.0273 (-.0250)
Advertising intensity	.105** (-.0354)	.104** (-.0354)	.145** (-.0406)	.106** (-.0353)
Headquarter ¹	.00562 (-.00683)	-.000537 (-.00762)	.00598 (-.00683)	.00569 (-.00682)
Autonomy	.0165+ (-.00929)	.0158+ (-.0093)	.0166+ (-.0093)	.0149 (-.00929)
Export	-.00623 (-.00934)	-.00513 (-.00937)	-.0056 (-.00934)	-.00726 (-.00932)
Destination of export ¹	.0128 (-.0134)	.00881 (-.0177)	.0141 (-.0138)	.015 (-.0145)
Intra-firm imports	.0254** (-.00932)	.0136 (-.0118)	.0274** (-.00942)	.0186+ (-.00957)
Intra-firm exports	.0109 (-.0137)	-.00045 (-.0182)	.0125 (-.0139)	.0267+ (-.0150)
Headquarter				
* destination of export		.00198 (-.0224)		
* intra-firm imports		.0301+ (-.0181)		
* intra-firm exports		.0235 (-.0269)		
Advertising intensity				
* destination of export			-.248 (-.299)	
* intra-firm imports			-.133 (-.0916)	
* intra-firm exports			-.136 (-.184)	
Industry sector ²				
* destination of export				-.0183 (-.0325)
* intra-firm imports				.0885* (-.0417)
* intra-firm exports				-.0807* (-.0351)
R-squared	.102	.104	.104	.107

Notes. N = 2,087. Dependent variable: Social CSR. Standard errors in parentheses. Regression includes country and industry dummies, and a constant term; ** p < .01, * p < .05, + p < .10. ¹0 = developing countries, 1 = developed countries, ²0 = manufactured goods and services, 1 = extractives.