

SUSTAINABLE MANAGEMENT OF EXISTING SUPPLIERS: A PERSPECTIVE OF SELECTED FIRMS IN GHANA

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Abstract: Companies are perceived as key actors in the drive for sustainability and are expected to supervise and develop their suppliers' efforts towards social and environmental responsibility. The purpose of this article is to investigate if buying firms help develop sustainability management practices in their existing suppliers in Ghana. Data was collected through exploratory survey from conveniently sampled respondents in focal firms actively involved in the supply management activities of their organizations. Results reveal less evidence of sustainable supplier development activities by the focal firms both on environmental and social dimensions. Buying firms should take necessary steps towards implementing structured sustainability development activities to effectively manage a sustainable portfolio of their existing suppliers.

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1. INTRODUCTION

The management of sustainability entails both environmental and social dimensions besides the economic one, and has become a top priority for both practitioners and researchers (Sancha et al., 2015; Carter & Rogers, 2008). Indeed, companies are perceived as important actors in the drive for sustainability (Koplin, 2007), which is the reason for which consumers, governments, and non-governmental organizations are demanding focal firms to supervise their suppliers' effort towards social and environmental responsibility, or even ask for such actions and related improvements regarding production processes (Koplin et al., 2007; Beske et al., 2008; Awaysheh & Klassen, 2010; Carter & Easton, 2011; Morali & Searcy, 2013).

A firm is no more sustainable than its supply chain and its managers have to consider both the natural and social case for corporate sustainability beyond their organization's boundary to include supply chain activities (Krause et al., 2009; Carter & Rogers, 2008; Dyllick & Hockerts, 2002). This requires the practice of planning, implementing, developing and monitoring company relationship with current suppliers (Wagner, 2000). Rather than simply evaluate only basic material or component criteria, such as cost, quality and delivery, supply chain managers must address a complex array of social and environmental factors, not only for their own firm, but also related to their supply chain partners (Vachon & Klassen, 2006). It implies, for example, that firms identify new criteria for supplier selection and evaluation, aiming at the integration of environmental and social guidelines as well as the implementation of related control mechanisms and compliance stimuli (Koplin et al., 2007). Integration between a buying organization and its suppliers is undertaken to improve the operations in the buying organization and/or in the supply network (Vachon & Klassen, 2007). By implication, learning that occurs between buyers and suppliers concerning environmental and social activities such as working with suppliers to commit to waste reduction goals and developing capable suppliers takes time, but such learning can have a strong positive influence on supplier performance and reduced operating costs in supply chain relationships (Carter, 2005) as well as create a longer-lasting and less imitable set of processes (Carter & Rogers, 2008).

Sustainability management of supplier involves such business practices as supplier selection and evaluation, supplier monitoring and supplier development (Schiele, 2007). Successfully implementing improved sustainability conditions in upstream suppliers is a key contemporary challenge (Matos & Hall, 2007). Nonetheless, numerous exemplars have been provided on implementing sustainable supplier development programmes (Anisul Huq et al., 2014; Carter & Rogers, 2008; Koplin et al., 2007; Matos & Hall, 2007) where greater collaboration among members of a supply chain fosters the development of improved environmental and social practices (Vachon & Klassen, 2006) from developed countries perspectives. Despite such evidence of involvement in supplier development by buying firms

across industries (Krause & Scannell, 2002), limited studies focused on environmental and social sustainability in developing countries (Anisual et al., 2014; Akamp & Müller, 2013; Wagner, 2006) and the few studies on Ghana only focused on environmental sustainability within the mining industry (Amankwa & Anim-Sackey, 2004).

This paper contributes to both environmental and social sustainability in developing countries by investigating the extent to which buying firms help to develop sustainability management practices in their existing suppliers in Ghana. The paper presents empirical data from exploratory survey by determining if the buying firms monitor social and environmental business practices of their existing suppliers; examining if firms concentrate on the environmental aspect of business practices when dealing with their suppliers; examining if the buying firms engage in continuous efforts to coach their suppliers regarding ways to improve workplace safety; and identifying the number of buying firms that ensure that their existing suppliers continue to adopt improved working conditions at their sites as a basis for which the supplying firms continue to do business with them. The remaining of the paper is organized into four sections as follows. Managing social and environmental sustainability of suppliers is discussed in the second section. The third section describes the methodological approach used in the study. The empirical results are presented and discussed in section four. The concluding statement of the paper is presented in the fifth section.

2. SUSTAINABLE SUPPLY CHAIN MANAGEMENT

A firm's corporate image significantly depends on its supply chain and the sustainability performance of every chain link, including suppliers and sub-suppliers (Leppelt et al., 2011). According to Carter and Rogers (2008), sustainable supply chain management is "the strategic, transparent integration and achievement of an organization's social, environmental, and economic goals in the systemic coordination of key inter-organizational business processes". It involves, a buying firm, incorporating and managing the dimensions of social, environmental, and economic sustainability activities (Ahi & Searcy, 2013) along the upstream of its supply chain in relation to its component purchases (Sarkis, 2003). The sustainability concept is generally referred to as the triple bottom line (Kleindorfer et al., 2005). The objective of supply chain sustainability is to create, protect and grow long-term environmental, social and economic value for all stakeholders involved in bringing products and services to market (Sisco et al., 2010; UNGC and BSR, 2010).

Over the past two decades, increasing pressures from governments, customers, employees, shareholders, and other stakeholder groups have prompted corporations to address the economic, environmental, and social implications (Morali & Searcy, 2013; Zimmer, 2016; Carter & Easton, 2011; Awaysheh & Klassen, 2010; Beske

et al., 2008; Koplin et al. 2007) of their businesses. Consequently, there have been developing acceptances amongst corporations that efforts towards improved corporate sustainability are not only expected but are of value to the business (Klettner et al., 2014). This is expected to continue into the future since sustainability criteria might have a prohibitive impact on the sourcing decision, meaning that a supplier that does not fulfil required environmental and social standards will not be awarded a sourcing contract (Koplin et al., 2007). Suppliers are, therefore, demonstrating transparency of their social engagement and their undertakings to reduce the impact of their business activities on the natural environment (Reuter et al., 2010). Predominantly, sustainable supplier development enables the buying firm to effectively manage the qualified suppliers of the supply base and to further enhance their performance in terms of ecological and social (Foerstl et al., 2010) dimensions of sustainability. Therefore, buying firms must examine if sustainable operations exist at the supplier firm, since irresponsible supplier behaviour may extend to the buying firm (Carter & Jennings, 2004; Koplin et al., 2007).

3. SUSTAINABLE DEVELOPMENT OF EXISTING SUPPLIERS

Supplier development has become a viable supply chain management practice across industries (Krause & Scannell, 2002). Since not all suppliers are in the position to effectively, own their own, improve their sustainability performance, focal firms aid their suppliers achieve this objective through supplier sustainable development (Fu et al., 2012). Sustainable supplier development involves any activity undertaken by a buying firm to improve either suppliers performance, capabilities, or both, and to meet the buying firm's short- and/or long-term supply needs (Krause et al., 2007). The development process starts by setting up appropriate development activities, followed by the expected performance of potential development activities gets evaluated, and the best activities will be selected for implementation (Zimmer, 2016). It also involves "a long-term cooperative effort between a buying firm and its suppliers to upgrade the suppliers' technical, quality, delivery, and cost capabilities and to foster ongoing improvements" (Hahn et al., 1990). Sustainable supplier development may include setting goal expectations, ongoing supplier monitoring and evaluation, performance measurement, supplier training, and partnering with suppliers to overcome barriers to improvement (Krause et al., 2007; Sisco et al., 2010). This requires a systematic effort and inter-organizational exchange to create and maintain a network of competent suppliers and to improve various supplier's performance and capabilities that are necessary for the management of environmental, social and economic impact (Sisco et al., 2010; Wagner & Krause, 2009; Krause, Handfield & Tyler, 2007; Burt et al., 2003).

Supplier development efforts can vary according to the buying firm's motivation in its initiation and implementation of supplier development measures

(Wagner, 2006). The development efforts may involve direct and indirect development activities (Akamp & Müller, 2013). Direct involvement include activities such as site visits, training of suppliers' personnel, and direct investment of various resources in the supplier's operations either by a buyer or jointly with a supplier to improve supplier capabilities and performance or both (Krause et al., 2002; Praxmer-Carus et al., 2013; Harms et al., 2013). It also includes such as activities as knowledge transfer and communications, investment and resource transfer, and organizational and management practices (Bai & Sarkis, 2010; Fu et al., 2012). Since direct supplier development poses problems in terms of the potential for opportunistic behaviour, buying firms usually safeguard their supplier-specific investment by establishing long-term buyer-supplier relationship (Wagner, 2006). Indirect activities include using competition as a means to motivate suppliers to assess and improve performance, provide feedback, and institute supplier incentives such as supplier awards that may be used by buying firms to encourage suppliers to improve (Krause et al., 2002).

Hence, buying firms' responsibility beyond profit is to contribute to developing suppliers to solve social problems and protect the natural environment (Sawyer and Evans, 2010; Kuzey, 2016). This involves continuous supplier performance analysis and evaluation of necessary raw materials, components, and services for the production of end-items based on the compliance of minimum requirement of the sustainability dimensions (Talluri & Sarkis, 2012; Ragazzi, Crescentini & Castelli, 2012; Koplín, 2006; Hervani, Helms & Sarkis, 2005). This covers issues such as environmental collaboration on product and process design, reduction, recycling, and environmental systems management (Srivastava, 2007; Kuzey, 2016). For organizations to manage these effectively they need to expand their vision of environmentally sound practices to go beyond their organizational boundaries (Bai & Sarkis, 2010) by helping suppliers reduce their negative environmental impact (Ehrgott et al., 2013). The social side of sustainability involves health and safety, human rights, child labour, community engagement; gender diversity, quality of life, fair trade and labour practices, among others (Anisul et al., 2014; Akamp and Müller, 2013; Hassini et al., 2012; Pullman & Dillard, 2010; Carter & Rogers, 2008).

Firms focusing on individual sustainable developments independently are unlikely to achieve satisfactory solution to their sustainable supply chain problems (Hall et al., 2012). Thus, the sustainable supply chain management process emphasizes the relevance of supplier development as an opportunity-oriented process (Harms et al., 2013) with a focus on helping suppliers improve their environmental performance or relationships with a focal organization (Bai & Sarkis, 2010). This can lead to product and process innovation for the focal firm and the suppliers (Geffen & Rothenberg, 2000), and avoid the cost of terminating an existing supplier and searching for a new supplier (Harms et al., 2013). Cooperation with and development of suppliers is a key stream in buyer-supplier relationship (Hollo et al., 2011) and a key to driving and improving the sustainability compatibility of their businesses (Ken et al., 2000) as well as assisting in spreading sustainability

and deepening the co-operation between the focal firm and its business partners (Koplin et al., 2007).

4. METHODOLOGY

A total of 117 self-administered questionnaires were distributed and out of which 101 were considered valid and were used in the final analysis. A total of 16 questionnaires were eliminated because they were incomplete. To assess the reliability of the measures, Cronbach's alpha for all the construct was calculated and found to be 0.82 indicating satisfactory internal consistency reliability (Francis, 2001; Robinson et al., 1991).

The respondents were conveniently sampled because of their depth knowledge of their companies' sustainable supplier development activities. Thus, the respondents were actively involved in the supply management activities of their respective organizations. The study organizations consisted of privately medium scale enterprises across various sectors of the Ghanaian business environment. These companies were drawn from the database of Ghana Statistical Service, which classified companies in Ghana into Agriculture, Industry, and Service. There were four sections in the questionnaire with a total of 18 items. The questionnaire items used were developed from a research conducted on sustainable management in emerging economic contexts (Kaufmann & Carter, 2008). A five-point Likert-type scale from (1) strongly disagree to (5) strongly agree was used to elicit the responses. The questionnaire was personally administered to the respondents.

5. RESULTS AND DISCUSSION

5.1. Demographic characteristics

Proctor (2000) explains that demographic data are needed to obtain basic information about the respondents. It provides identification material about the respondent such as age and sex. Demographic data, in addition, helps in the analysis of subgroups within the sample to provide a method for identifying differences in key results in responses by subgroups such as age, sex, among others.

The distribution of demographic variables (Tab. 1) of the sample indicated that the majority of the respondents were male. Out of the 101 respondents, 66.3% were male ($n = 67$) and 33.7% were female ($n = 34$). More than half of the sample, representing 56.4% of the sample ($n = 57$), were between the ages of 51 years and 50 years. Industry as a sector of the economy formed majority of the sample

representing 53.5% ($n = 54$), the service sector formed 32.7% of the sample ($n = 33$) with Agriculture which is considered as the backbone of Ghana's economy forming 13.9% of the sample ($n = 14$).

Table 1. Demographic Characteristics; Source: Field survey, 2016

Parameter	No. of Respondent	[%]
Gender		
Male	67	66.30
Female	34	33.70
Total	101	100.00
Age Group		
21–30	17	16.80
31–40	24	23.80
41–50	57	56.40
51–60	3	3.00
Total	101	100.00
Sector of the Economy		
Agriculture	14	13.90
Industry	54	53.50
Service	33	32.70
Total	101	100.00

5.2. Monitoring Social and Environmental Business Practices of Existing Suppliers

A major question dealt with in the study was whether the buying firms monitor social and environmental business practices of their existing suppliers. Table 2 presents the results of their reported monitoring of social and environmental business practices of existing firms. Respondent reported not monitoring social and environmental business practices of their existing firms: regularly monitor to ensure that their suppliers continuously meet their social and environmental expectation ($M = 2.44$, $SD = 0.767$), have a policy to phase-out suppliers that no longer meet their social/environmental expectations ($M = 2.30$, $SD = 0.558$), ensure that their suppliers adopt latest social and environmental standard ($M = 2.20$, $SD = 0.400$) and rank social/environmental aspect as a key monitoring criteria ($M = 2.38$, $SD = 0.630$). These findings contrast the assertion that the focal firms often relied on measuring and monitoring the performance of their suppliers with respect to both environmental and social criteria, and act as an interface between an organization and its suppliers as a critical business processes (Talluri & Sarkis, 2012; Anisul et al., 2014).

Table 2. Monitoring social and environmental business practices of existing suppliers (N = 101) (5 = Strongly agree, 1 = Strongly disagree)

Component	Mean	Std. Deviation
Regularly monitor to ensure that their suppliers continuously meet their social and environmental expectation	2.44	0.767
Have a policy to phase-out suppliers that no longer meet their social/environmental expectations.	2.30	0.558
Ensure that their suppliers adopt latest social and environmental standard	2.20	0.400
Rank social/environmental aspect as a key monitoring criteria	2.38	0.630

5.3. Environmental aspect of business practices

Another question dealt with in the study was whether the firms concentrate on the environmental aspect of business practices when dealing with their suppliers. Table 3 presents the results of their reported concentration on the environmental aspect of business practices when dealing with their suppliers. Respondent reported concentrating on various aspect: advice their suppliers on the use of technologies that will make supplier's operations cleaner (M = 3.61, SD = 0.547) and make efforts to show them how they can use resources efficiently (M = 3.16, SD = 0.717) during business transactions. These are found to be congruent with the literature (Vachon & Klassen, 2006a). However, respondents reported less concentration on helping their supplier in reducing waste in the supplier's manufacturing processes (M = 2.28, SD = 0.450) appeared to be a challenge, which contradicts empirical findings of focal and supplying firms engaging in joint planning to anticipate and resolve sustainability related problems (Gualandris & Kalchschmidt, 2014) within the upstream of the chain.

Table 3. Environmental aspect of business practices (5 = strongly agree, 1 = Strongly Disagree)

Component	Mean	Std. Deviation
Advice their suppliers on the use of technologies that will make supplier's operations cleaner	3.61	0.547
Help their supplier in reducing waste in the supplier's manufacturing processes.	2.28	0.450
Make efforts to show them how they can use resources efficiently	3.16	0.717

5.4. Safety aspect of business practices

Another question dealt with in the study was whether the buying firms engage in continuous efforts to coach their suppliers regarding ways to improve workplace safety. Table 4 presents the results of their reported continuous efforts to coach their suppliers regarding ways to improve workplace safety. Respondents reported engaging in continuous efforts on various aspect: encourage their suppliers to consciously improve safety ($M = 3.85$, $SD = 0.357$) and share best practices regarding safe handling and transporting of products ($M = 3.47$, $SD = 0.626$) during business transactions while other aspect: joint efforts with suppliers to improve their workplace safety standards. ($M = 2.08$, $SD = 0.271$) and coach their suppliers on development of effective safety guidelines ($M = 2.12$, $SD = 0.325$) appeared to be a challenge. The findings reveal firms in Ghana are less engaged safety aspect of social sustainability. This supports the proposition by Pagell et al. (2013) that creating a safe and productive workplace is difficult and many firms fail in this respect.

Table 4. Safety aspect of business practices (5 = strongly agree, 1 = Strongly Disagree)

Component	Mean	Std. Deviation
Encourage their suppliers to consciously improve safety	3.85	0.357
Share best practices regarding safe handling and transporting of products	3.47	0.626
Joint efforts with suppliers to improve their workplace safety standards	2.08	0.271
Coach their suppliers on development of effective safety guidelines	2.12	0.325

5.5. Working conditions of suppliers

The last question dealt with in the study was whether the buying firms ensure that their existing suppliers continue to adopt improved working conditions at their sites as a basis for which the supplying firms continue to do business with them. Table 5 presents the results of their reported ensuring suppliers adopt improved working conditions. Respondent reported not ensuring that their existing suppliers continue to adopt improved working conditions at their sites as a basis for which the supplying firms continue to do business with them: advice their suppliers about appropriate staff compensation ($M = 2.00$, $SD = 0.00$), coaching their suppliers on managing working and rest hours of their staff ($M = 2.00$, $SD = 0.000$), encouraging their suppliers to support their staff's career development ($M = 2.20$, $SD = 0.400$) and consciously show their suppliers how to improve working conditions at their

production sites ($M = 2.20$, $SD = 0.490$). These findings confirm empirical investigations reported that developing countries either often find it difficult to incorporate social dimension of sustainability or its engagement is often neglected (Gugler & Shi, 2009; Seuring & Müller, 2008; Beske et al., 2008; Srivastava, 2007) activating the need for firms to ensure adequate social standards along the entire supply chain (Linton et al., 2007).

Table 5. Working conditions of suppliers (5 = strongly agree, 1 = Strongly Disagree)

Component	Mean	Std. Deviation
Advice their suppliers about appropriate staff compensation	2.00	0.000
Coaching their suppliers on managing working and rest hours of their staff	2.00	0.000
Encouraging their suppliers to support their staff's career development	2.00	0.000
Consciously show their suppliers how to improve working conditions at their production sites	2.20	0.490

6. CONCLUSION

This paper provides insight into how firms in Ghana engage in sustainability development practices of their existing suppliers. Overall, the result provided little evidence of sustainability activities and reveals areas where improvements in social and environmental sustainability are required. The study reveals low involvement of sustainable supplier development activities by the firms both on environmental and social dimensions, although there is relatively much focus on environmental dimension of sustainability than the social dimension. Thus, a genuine supplier development and capacity building approach is also needed and is fundamental to achieving a sustainable competitive advantage in the long term (Anisul Huq et al., 2014). Buying firms should take necessary steps towards implementing structured sustainability development activities to effectively manage a sustainable portfolio of their existing suppliers; without which effective management of supplier sustainability can only be achieved randomly, which might lead to potentially detrimental negative effects on corporate reputation (Foerstl et al., 2007).

There are a couple of limitations to this study. First, the data for the study was based only from the perspective of the buying organizations. The view of the suppliers will require attention and consideration. The study was also analysed descriptively suggesting that a further study of how sustainability supplier development activities impact on the performance of the focal firms and also examine the barriers to achieving sustainable supplier development

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