Supplier relationship management and sustainability performance in the tobacco industry

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Abstract

The tobacco industry is an under-researched industry in terms of sustainable operations and supply chain management practices. This case study has explored how tobacco manufacturing companies can improve their sustainability performance via supplier relationship management (SRM). It provides insight into the varying SRM methods used in the tobacco industry to ensure compliance and improve sustainability performance. However, the perception of sustainability as a requirement to meet the stringent industry regulations has been found to limit its scope and drive in pursing sustainable SRM. Further research is required to explore the generalisability of our findings derived from a single case study.

Keywords: Sustainability, Supplier relationship management, Tobacco industry

Introduction

Nowadays, pressures from various stakeholder groups have increasingly prompted companies to address the economic, environmental and social implications of not only their own operations but also their entire supply chain's. As witnessed in Apple, Adidas, Mattel and Nike, companies have been held responsible for the unsustainable behaviours of their supply chain partners who may be scattered across the globe with different environmental, economic, social and legal standards (e.g. Seuring and Müller, 2008; Reuter et al., 2010; Grimm et al., 2014; Wilhelm et al., 2016b). In response to this chain liability effect, companies have to find ways to incorporate environmental and social aspects into their supply management. However, our understanding of how sustainability can be achieved via supply management is still at an early stage (Koplin et al., 2007; Reuter et al., 2010; Bové and Swartz, 2016). In a broader sense, while there is a general consensus that sustainability initiatives can lead to improved financial performance and a competitive advantage, the implementation of sustainability initiatives in practice remains slower than desirable (Brockhaus et al., 2013; Pagell and Shevchenko, 2014). Furthermore, Hassini et al. (2012) and Taticchi et al. (2013) have called for more industryspecific research on sustainable supply chain management (SSCM). Carter and Easton (2011) have also noted that researchers should carefully select individual industries with the goals of identifying specific types of sustainability activities that are germane to those

industries. Against this background, this paper explores how tobacco manufacturing companies can improve their sustainability performance through supplier relationship management (SRM).

Sustainable operations and supply chain practices are crucial to the tobacco industry as unsustainable practices further expose tobacco companies to risks, sanctions and reputational damage in an already controversial industry. As well as health concerns, tobacco companies have come under criticisms because of their sustainability initiatives to improve their public image and influence the tobacco control agenda (McDaniel et al., 2016). For example, there are accusations that companies have used green supply chains in an attempt to legitimise their portrayals of tobacco farming as socially and environmentally friendly, rather than taking meaningful steps to eliminate child labour and reduce deforestation in developing countries (Otanez and Glantz, 2011). Such issues necessitate the need for an effective SRM strategy to improve the company sustainability performance in globalised tobacco supply chains. The remainder of this paper proceeds as follows: following the review of the relevant literature, the research methodology adopted in this study is presented. This is followed by the data analysis and discussions of the findings. The paper concludes with some implications derived from this study.

Literature Review

This literature review is organised into four parts: SSCM, SRM and sustainability, sustainable supplier performance management and SRM, and tobacco supply chain.

Sustainable Supply Chain Management

Sustainability came to the forefront of attention when the Brundtland Commission of the United Nations defined sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987). The way it is usually operationalised is through the triple bottom line (TBL) (Elkington, 1998), which includes economic, environmental and social perspectives. Following this logic, Seuring and Müller (2008) defined SSCM as "the management of material, information and capital flows as well as cooperation among companies along the supply chain while taking goals from all three dimensions of sustainable development, i.e. economic, environmental and social, into account which are derived from customer and stakeholder requirements" (p. 1700). Building on the TBL performance, Kleindorfer et al. (2005) applied the term sustainability to supply chains by utilising and optimising resources from a broader perspective (i.e. the entire production system and post-production stewardship).

While different perspectives have been taken to define SSCM, Touboulic and Walker (2015) distinguished those adopting a procurement/purchasing perspective vs a supply chain perspective. They further noted that SSCM has emanated from the recognition of the strategic importance of purchasing and supply activities both in achieving the company's long-term performance, and in addressing sustainability issues within business capabilities. In the context of the purchasing and supply function, the commonly cited drivers for adopting SSCM in literature include risk management (particularly vital for companies in a global economy), top management commitment, regulatory and institutional pressures, and supportive culture (e.g. Carter and Jennings, 2004; Pagell and Wu, 2009; Gattiker and Carter, 2010; Gimenez and Tachizawa, 2012). The literature also suggests that companies are implementing such SSCM practices as codes of conduct, standards, third-party certification, supplier assessment/monitoring, supplier training/development, rewards and sanctions, and collaboration with suppliers (e.g. Pagell and Wu, 2009; Van Tulder et al., 2009; Hassini et al., 2012; Walker and Jones, 2012).

SRM and Sustainability

SRM can have a significant impact on meeting sustainability goals (Ashby et al., 2012). In this context, the pursuit of sustainability is concerned with managing the balancing act of putting the TBL dimensions into supply management practices (Dabhilkar et al., 2016), often along supplier section, supplier monitoring and evaluation, and supplier development (e.g. Reuter et al., 2010; Miemczyk et al., 2012; Leppelt et al., 2013). However, social and environmental criteria are often in conflict with traditional objectives of supply management (Reuter et al., 2012; Busse et al., 2016). This is particularly relevant for the trade-off which purchasing professionals face between the potentially conflicting objectives of cost reduction and (supposedly costly) sustainable business practice in alignment with non-economic goals of the organisation (Reuter et al., 2012).

In the recent literature on the implications of sustainability for supply management practices, there has been increasing interest in the effectiveness of the traditional purchasing portfolio matrix (Kraljic, 1983) in the pursuit of sustainability (Krause et al., 2009; Pagell et al., 2010; Dabhilkar et al., 2016). According to the Kraljic matrix, different types of supply relationships are required for different types of purchases or inputs. Four types of purchases (strategic, bottleneck, leverage and noncritical items) are proposed based on the strategic importance of the input on profitability and supply risk. Pagell et al. (2010) observed that a number of purchasing managers implementing sustainable supply management were not developing relationship strategies in the manner Kraljic suggested. Dabhilkar et al. (2016) also revealed that sustainability development impacts supplier compliance in all Kraljic categories except for bottleneck items.

The recent literature on SRM and sustainability has also focused on the issues beyond the focal company's direct suppliers. It investigates how focal companies can approach and manage their low-tier suppliers (e.g. Grimm et al., 2014; Tachizawa and Wong, 2014; Wilhelm et al., 2016b). The buying company can directly approach lower-tiers suppliers, to monitor, govern and collaborate with them (Mena et al., 2013; Tachizawa and Wong, 2014). Tachizawa and Wong (2014) noted that companies following this direct approach tend to have more power and face higher stakeholder pressure. Among others, a challenging task particularly arises from the lack of contractual relationships between a buying company and its lower-tier suppliers (Choi and Linton, 2011; Grimm et al., 2014). As a focal (buying) company is rarely powerful enough to orchestrate the entire supply chain, it can delegate the authority for managing lower-tier suppliers to the tier 1 supplier (Wilhelm et al., 2016a). However, this is highly dependent on the tier 1 supplier's sustainability management capabilities.

Sustainable Supplier Performance Management and SRM

In meeting an organisation's TBL development objectives, supplier selection, supplier monitoring and evaluation, and supplier development are only feasible with related performance measurement and management tools (Gimenez and Tachizawa, 2012; Beske-Janssen et al., 2015). It is crucial to focus on how sustainability has been integrated into supplier selection criteria (Koplin et al., 2007; Miemczyk et al., 2012). Sustainable supplier monitoring serves as a continuous assessment approach to observe suppliers' sustainability performance (Brammer et al., 2011). The supplier monitoring and evaluations can serve as a basis for replacing non-compliant suppliers, as a trigger for supplier development activities, and/or as a means to continuously monitor the progress and success of development efforts (Zimmer et al., 2016).

In addition to supplier performance measurement, the main activities for supplier development also include providing incentives for the supplier to improve, creating

competition among suppliers, and working directly with suppliers through training programmes, and technical and managerial assistance etc. (Handfield et al., 2000; Krause et al., 2000; Wagner and Krause, 2009). When supplier performance falls below the required metrics, the buying company can change to a more capable supplier or help improve the existing supplier's capabilities (Handfield et al., 2000). Supplier development is preferable to the termination of suppliers in case of improvable sustainability performance. It may be difficult to improve the local economic, social and environmental conditions at the supplier sites by way of switching to another supplier. The termination can also provoke trickle-down effects (Holt, 2004; Zhu et al., 2008) if the first-tier supplier takes up the role of managing the sustainability performances of lower-tier suppliers for the focal (buying) company (Wilhelm et al., 2016a). The ability to form collaborative relationships with suppliers to improve sustainability has been deemed to be a valuable asset that results in a sustainable advantage in making responsible and profitable supply chains (Pagell et al., 2010; Gimenez and Sierra, 2013).

Tobacco Supply Chain

Otanez and Glantz (2011) described the tobacco supply chain as comprising of companies engaged in seed and crop science, tobacco growing, harvesting, leaf selling, transport, storage, ingredient supply, cigarette manufacturing and retailing and can thus be categorised into (a) Leaf and (b) Non-leaf tobacco supply chain. An illicit tobacco market also exists in addition to the legitimate tobacco supply chain which cost governments an estimated \$40-50 billion in lost revenue in 2006 (Joossens and Raw, 2008) and poses serious health risk to the public because it makes tobacco available at a cheaper cost.

With respect to supply chain management, Datta (2017) reported on how a tobacco company in India has enhanced competitive advantage by re-configuring its leaf tobacco supply chain. In terms of sustainability, Montabon et al. (2016) argued that, given the social harm in the form of health outcomes that tobacco products cause, it would be difficult to classify tobacco supply chains as sustainable if customer demand is considered in conjunction with environmental and social concerns. Nevertheless, two supply chain issues have been commonly addressed by tobacco companies (McDaniel et al., 2016), namely child labour and the environmental impact of tobacco growing. However, it is argued that tobacco companies rely on such claims, as well as other tobacco industry corporate social responsibility initiatives, to improve their public image and influence the tobacco control agenda (McDaniel et al., 2016).

In summary, we have reviewed the literature on SSCM, SRM and sustainability, and sustainable supplier performance management and SRM. It is important to point out that both the motivation and implementation of sustainable supply management are influenced by the nature of the companies' business, and the type of industry that the companies are in (e.g. Ageron et al., 2012; Schneider and Wallenburg, 2012; Tachizawa and Wong, 2014). Our literature review also indicates that tobacco companies are not in the sustainability business as it is becoming common place now across various industries and throughout academic research. The tobacco industry thus provides a unique research context for the study of the relationship between SRM and sustainability performance.

Research Methodology

To investigate the relationship between the tobacco manufacturing companies and their suppliers, and how such relationships could be improved for better sustainability performance, a single case study was used in this study. The case company is one of the five tobacco companies dominating the global tobacco industry. We collected qualitative data directly from 13 managers in the case company who are well informed of the supply

management processes and the implication of supplier relationships on their sustainability performance. The participants were selected across the tobacco leaf and non-leaf supply chains and a broader category of direct and indirect procurement. The interviews took approximately 75 minutes on the average and were conducted in a semi-structured manner. In addition to the use of interviews derived from a comprehensive review of literature, other sources of evidence or data include documents in the form of sustainability reports, supplier code of conduct, farmers' livelihood report and the case study company's website. We adopted a thematic analytic method in analysing data, and organizing and displaying our findings. For this research, the thematic analysis involved searching across interview transcripts, and a range of case company documents to find repeated patterns of meanings and issues of potential interest. The themes selected for the analysis are strongly linked to data themselves (Patton, 2015) and represent a rich description of the data set, based on their prevalence across the data and importance to the research question.

Data Analysis

The case company is an international tobacco company with the headquarters located in Europe. The role of SRM falls in its procurement department. In the course of the data analysis based on thematic analysis and through the literature review, four main themes were identified: (1) Supplier sustainability risk mitigation and perception; (2) SRM, supplier segmentation and multi-tier supplier management; (3) SRM and supplier sustainability performance; and (4) Supplier development and sustainability performance. In this section, our findings are orchestrated in the logical flow that practitioners associate with these topics. Table 1 summarises the main findings classified by themes.

Supplier sustainability risk mitigation and perception

Respondents pointed out that they have been able to mitigate supplier sustainability risk by incorporating rigorous supplier selection processes. This supports the literature (e.g. Foerstl et al., 2010; Dai and Blackhurst, 2012), demonstrating that purchasing and supply management are the key functions for preventing reputational damage from suppliers. Seuring and Müller (2008) also proposed supplier management for risks and performance, where emphasis is placed on avoiding risk from suppliers with poor sustainability performance.

The stringent supplier selection process demands that suppliers must meet numerous evaluations criteria of the focal company that consists of the Sustainable Tobacco Programme (STP) for suppliers of tobacco leaf and Survey Tool for non-leaf suppliers. These programmes include sustainability criteria covering areas such as environment, labour standards and human rights. The case company assesses the risks along four dimensions, namely supply, legal, reputational and financial risks. It also prioritises high-risk countries where the company may be more likely to face risk factors.

Although the tobacco industry enjoys top management commitment in its sustainable supplier management practices, the ability to effectively assess supplier sustainability risk and collaborate with suppliers in developing norm breaking sustainable practices beyond stakeholder's requirements, standards or the focal company's code of conduct is still highly influenced and affected by the perception or motivation of the supply management function. The motivation to implement sustainable supply chain practices is primarily from pressure of stakeholders which limits supplier selection process to selecting suppliers who meet the selection criteria, and limits supply management sustainability efforts to benchmark standards or code of conduct.

 $Table \ 1-Summary \ of \ research \ findings$

D 1 m	Research Theme Participant Code													
Research Theme	1	2	3	4	5	6	7	8	9	10	11	12	13	Total
Supplier sustainability risk mitigation	_			-		U	,	U						
and perception														
Supplier selection as a process of					_								_	
eliminating supplier sustainability risk Sustainability is mainly to meet ethical	1	1	1	1	1	1	1	1			1	1	1	11
standards	1	1	1			1	1	1		1	1	1		9
The code of conduct is a benchmark for	_	_				-	-	_			1			
sustainability performance		1	1			1			1			1	1	6
Supplier sustainability management of leaf														
suppliers is more matured				1					1					2
Risk assessment and Sustainability														
Performance (Leaf suppliers sustainability														
is more mature than non-leaf procurement)	1			1		1			1					4
Top management commitment to	1			1		1			1					7
sustainable SRM practices				1					1	1	1			4
Sustainability requirements increase cost		1												1
SRM, supplier segmentation and multi-														
tier supplier management														
Supplier segmentation and relationship management	1	1	1	1	1	1				1	1	1	1	10
Traceability and multi-tier sustainability	1	1	1	1	1	1				1	1	1	1	10
performance	1					1				1	1			4
Supplier relationships beyond tier-1				1	1		1		1		1		1	6
SRM and sustainability performance														
management														
Incentives and penalties for sustainability														
development						1			1					2
Supplier audit (site visits and assessment)														7
and Sustainability performance	1	1		1		1	1	1	1					,
Contract management and sustainability						1								1
performance						1								1
Supplier sustainability reporting beyond				1			1							_
tier-1 and Sustainability performance Supplier performance monitoring and				1			1		1	1		1		5
Reporting - 3rd party	1			1		1	1		1	1	1			7
Sustainability specific KPIs and														,
sustainability performance		1				1						1		3
Supplier development and Sustainability Performance														
·														
Training and vendor development for sustainability development	1			1	1			1	1	1	1	1	1	9
•	1			1	1			1	1					
Supply base revalidation and sustainability development initiatives			1											1
Supplier non - conformance and			1											
sustainability development	1	1		1		1		1	1			1	1	8

In conclusion respondents argued that a supplier selection process which focused on not only price has the benefit of eliminating supplier sustainability risk and ensuring a matured sustainable supply base to collaborate with.

SRM, supplier segmentation and multi-tier supplier management

Respondents pointed out that supplier segmentation was crucial in ensuring supplier performance and effectively managing the large tobacco supply base. The case company develops a supplier management strategy through supplier segmentation. Suppliers are categorised into four main categories i.e. strategic, core, performance managed and transactional suppliers based on spend, risk and criticality to business. The case company works collaboratively with strategic suppliers who form about 5% of the total supply base to jointly develop business plans, meet constantly to ensure compliance with changing regulations including sustainability requirements and KPIs to push delivery. This category is reviewed annually while other categories of suppliers are managed based on performance and price.

It is worthy of note that supplier relationships are developed with only tier-1 strategic suppliers in indirect procurement (i.e. materials not going into the final product) and the case company relies on tier-1 suppliers to cascade its standards and procedures which include sustainability standards to supplier further down the supply chain. This corroborates Wilhelm *et al.*'s (2016a) agency theory approach where the first-tier supplier takes up a double agent role with the responsibility to act as an agent toward the lead company when implementing sustainability in its own operations. However, in direct procurement (i.e. materials procured for the final product) direct sustainable supplier relationships are sometimes built with suppliers beyond tier-1 where the tier-2 or tier-3 supplier is strategic or is regarded as high risk. For the Next Generation Products (NGPs), including E-cigarettes and tobacco heating devices, lower-tier suppliers are appraised directly by the case company, due to the critical components involved, particularly in batteries where there is lithium.

However, the leaf supply chain of the tobacco industry has a slightly more matured SRM approach compared to the non-leaf supply chain. In the leaf supply chain, the company sources and has direct relationships with 90,000 contracted farmers who represent 70% of its leaf suppliers. It provides leaf managers who work at the operating company or local company level in providing agronomy support, engaging communities, agreeing contracts, supplying seed, and offering advice on propagation, the safe and sustainable use of agrochemicals and integrated pest management. The remaining 30% of leaf is sourced from tier-1 suppliers who source from numerous farmers and maintain relationships with these farmers while cascading the focal company's standards and code of conduct down the supply chain.

Finally, according to participants the main benefits of utilising sustainable relationship management include improving performance of suppliers, guaranty of supply despite increased regulations, joint innovation and product development.

SRM and sustainability performance management

Apart from the stringent supplier selection process, suppliers are assessed using a survey tool, annual self-assessments and on-site reviews. However, suppliers are revisited based on the ratings of audits: high scoring suppliers are reviewed after 4 years while low scoring suppliers are revisited more frequently and as part of the process suppliers are given a feedback and guidelines or action plan for continuous improvement. When the results of the self-assessment are unsatisfactory, the case company may request access to the supplier's factory. In the most serious cases, where compliance appears to be a real issue, they will send a third party auditor to inspect the supplier more intensively.

Traceability is also an essential part of the thematic analysis. One of the respondents pointed out that everything, from the plastic cord used in wrapping cigarette packets, to

the chemicals used, must be traceable to their origins by requesting certificates for all chemicals used, and information on second-tier suppliers. Furthermore, a traceability test is applied, inspecting all manufacturing resources, such as working conditions and employees' rights. This concurs with Rábade and Alfaro's (2006) characterisation of traceability as an essential procedure to avoid customer hazards, and a vital process through which to guarantee quality in SRM.

Respondents pointed out that supplier performance evaluations gave the supply chain visibility in proactively assessing supplier sustainability risk and developing a mitigation strategy in collaboration with the supplier. One of the challenges within supplier performance management, identified by Cheng and Carrillo (2012), is the lack of quality or timely information. The lack of information is also a common barrier to sustainable supply management (Crespin-Mazet and Dontenwill, 2012; Zailani *et al.*, 2012). The case company overcomes this challenge by considering supplier evaluation also as a function of the quality management department, involving communication between those dedicated to quality management, on behalf of both the supplier and the focal company.

Most respondents however pointed to the absence of sustainable supply chain key performance indicators, incentives or sustainability target in contracts as proposed by Bai and Sarkis (2014) in measuring performance. Supplier performance is measured against the ability to meet the supplier code of conduct criteria through audits, site visits and self-assessments. The case company justifies the lack of sustainability KPIs as increasing the complexity and cost of managing suppliers. Regarding sustainability reporting and monitoring, respondents pointed out that the case company has implemented a mixed approach of collecting sustainability performance information. It directly collects information using self-assessments, survey tools and audits, and indirectly collects information using tier-1 suppliers in the leaf supplier chain where first tier suppliers include, as part of their assessment, the sustainability performance reports of lower tier suppliers and also with regard to strategic lower tier supplier like flavour houses.

On the other hand, the tobacco leaf supply chain has a more robust performance management approach by incorporating the STP. STP is an industry initiative and applies to all major global tobacco manufacturers and suppliers. It has 178 criteria covering 5 key sections of Crop, Environment, People, Facilities and Governance.

In sum, the non-leaf supplier sustainability performance is assessed against the case company's standards and code of conduct while the leaf suppliers performance is assessed against industry wide standards and potential new suppliers assessed based on the supplier selection criteria to prevent non-compliant suppliers from entering the supply base.

Supplier development and sustainability performance

The development of suppliers in terms of sustainability is often triggered from performance results. Respondents pointed out that supplier development programmes for all suppliers on sustainability would be a humongous task with severe cost implications, and it is limited to strategic and core supplier segments. The process of development is about mentoring and coaching, rather than imposing an actual training process. The literature has linked supplier development to sustainability via mentoring and coaching (Rao and Holt, 2005). For the case company, this is justified by ensuring an effective supplier selection process is in place to guarantee a sustainable supply base that meets the company's sustainability standards and changes to policy are constantly cascaded.

The respondents further expatiated that training of suppliers are also carried out in continuous contract management approach aimed at improving the suppliers' performance when deficient or when performance is below metrics. With regards to sustainability elements within supplier development, respondents noted that they

strive to ensure that their company only works with suppliers that comply with the changing policies and regulations. Additionally, non-complaint suppliers are replaced or delisted only after development measures have been exhausted. Some respondents pointed out that the development of suppliers is also carried out using a SRM approach through operational and strategic meetings where suppliers are updated on new policies and requirements of the case company.

The tobacco leaf supply chain has a more robust supplier development strategy for leaf suppliers. It includes training and incentives such as providing free technical advice, support and training on agricultural best practice via their specialist leaf technicians, access to new farming technologies (such as drip irrigation), and providing free training and workshops on best practice sustainable agriculture approach and new initiatives for first tier leaf suppliers.

Discussion

This research aimed to understand how the tobacco industry can improve its sustainability performance through an effective SRM strategy. First, our findings are in line with the literature, suggesting that, to achieve successful sustainable SRM, supplier selection criteria should not only be focused on the traditional economic criteria of price, delivery, flexibility and service but also include all aspects of the triple bottom line (e.g. Jimenez and Lorente, 2001; Zimmer *et al.*, 2016). However, the tobacco company has shown the high commitment from its top management and the internal willingness to manage supplier sustainability risks before they are exposed publicly. This is in support of Roehrich *et al.* (2014), who argued that a company's decision to implement SSCM practices and manage these are contingent upon its reputational risk exposure.

Second, all participants in this study perceive sustainability as a requirement to meet the stringent regulations of the tobacco industry, thus limiting their scope and drive in pursing sustainable relationships with suppliers. In such a sustainability initiative, the main motivation for a supplier to engage the sustainability implementation is generally not to improve its own sustainability performance, but to comply with the buyer's requirement (Brockhaus *et al.*, 2013). It has also been acknowledged in the literature that, when companies' sustainability initiatives are driven primarily by legislative and political pressures, they are less likely to achieve profit and garner competitive advantages (Kiron *et al.*, 2013; Pagell and Shevchenko, 2014). Therefore, there is a need to re-orientate the supply management professions to drive further supplier relationships to improve sustainability performance beyond the norm for both the focal company and its suppliers.

Third, the case company manages the large tobacco supply base through supplier segmentation. It works collaboratively with its strategic suppliers in indirect procurement and relies on them to cascade its standards and procedures to lower-tier suppliers. This is in line with the literature, proposing that the buyer can delegate the authority for managing lower-tier suppliers to the tier 1 supplier (Choi and Hong, 2002; Wilhelm *et al.*, 2016a). However, in direct procurement, direct sustainable supplier relationships are sometimes built with suppliers beyond tier-1 where the tier-2 or tier-3 supplier is strategic or is regarded as high risk. For the Next Generation Products (NGPs), lower-tier suppliers are appraised directly by the case company, due to the critical components involved. This direct approach to accessing and managing lower tier suppliers may be explained by the fact that the role of tobacco manufacturers owing to their powerful position has been in coercive drivers for sustainability initiatives in the highly regulated, controversial tobacco industry (Tachizawa and Wong, 2014).

Fourth, we find evidence that supplier performance evaluations gave the supply chain visibility in proactively managing supplier sustainability risk. This is in line with Pagell

and Wu (2009) proposing that managers of sustainable chains will focus on sourcing side activities. To gain quality and timely information about its suppliers, the case company has integrated supplier evaluation to the function of the quality management department. This inter-functional integration complements the literature on the production-marketing integration as an SSCM practice (Pagell and Shevchenko, 2014; Foerstl *et al.*, 2015). In addition, the relationship management and performance management approaches presented in the literature review are mainly applied in the leaf supply chain alone which elaborates the fact that the tobacco supply chain has focused its sustainability efforts on suppliers where risks were most expected and to those that would have the greatest damage to the organisation's brand. This could expose tobacco supply chains to sustainability risk from other suppliers such as paper, packaging and filter tip suppliers.

Finally, this research reveals that the case company has limited supplier sustainability evaluation and performance metrics, thus not encouraging suppliers to make norm breaking sustainable efforts. This is further compounded by not acknowledging the sustainability performance of suppliers by non-provision of rewards or exclusion of incentives in contracts for specific sustainability performance. Providing suppliers with awards and incentives for improved performances is a key enabler of supplier development efforts (Krause *et al.*, 2000; Koplin *et al.*, 2007). Nevertheless, it is encouraging to note that several interviewees in our study mentioned that they have a plan to address this, as one stated "We do not give awards to suppliers for good sustainability performance but it is in our future plans".

Conclusions, limitations and further research

This study has investigated the relationship between the tobacco focal company and its suppliers and how such a relationship could be improved for better sustainability performance. It is clear from our data analysis that the case company has the high commitment from its top management and internal willingness to manage supplier sustainability risks. This is evident in its stringent supplier selection process, management of its lower-tier suppliers and improved visibility of its suppliers through the quality management department. However, the perception of sustainability as a requirement to meet the stringent regulations of the tobacco industry also limits its scope and drive in pursing sustainable SRM. We have found evidence that the case company has limited supplier sustainability evaluation and performance metrics, thus not encouraging suppliers to make norm breaking sustainable efforts. The findings of this study have shown the limited implementations of approaches in the sustainable SRM literature in the tobacco industry also due to cost implications of implementing such approaches. There is thus a need for further research in exploring cost effective strategies in implementing sustainable SRM. Also, this research has examined sustainable SRM only from a focal company perspective. Further research should first explore both the supplier and the buyer points of view on sustainable SRM, and then encompass the whole supply chain. Moreover, further research could investigate the development of sustainable SRM over time using a longitudinal study, in the light of changing regulations, specific industry incidents and relationship dynamics. Our findings also seem to be relevant to other extremely exposed industries that risk being under comparable pressure, such as the food industry that is linked to obesity and diabetes, and the telecommunications industry that is threatened by the potential link between cancer and the use of mobile phones. Therefore, we hope that this research could stimulate further empirical and theoretical work into SSCM in highly regulated, extreme industries like tobacco.

References (available on request)