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New Strategies to Improve Sustainability through Supplier Assessment

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Sustainability is today consolidated as a mandatory business rule. Multinational companies whose operations affect economies, societies and environment worldwide, are key triggers to transform supply chains towards sustainable development. In this context, this paper aims to understand how some German companies have been using supplier assessment as a new strategy to improve their sustainability. The content analysis method was used to collect and analyse materials published in corporate responsibility reports, annual reports and corporate websites. The selected companies, Beiersdorf, Heidelberg Cement, MAN, RWE and ThyssenKrupp, are important players in different industries. The findings offer valuable examples of initiatives such as development of specific requirements for assessing suppliers, adoption of international standards, use of specific strategies to stimulate communication with suppliers, among others. However, it was also clear the lack of investments in areas that might offer interesting results for increasing network sustainability. Imprecise goals, problems with data visibility and managerial failures in projects with supply chain partners hinder continuous improvements towards a collaborative approach. The process of assessing suppliers in attempt to monitor and encourage sustainability practices is still limited. Moreover this paper highlights the need of innovative and concrete actions to align business, environment and society within supply chain partners.

Keywords: Sustainability, Supply Chain, Practices, Supplier Assessment
1 Introduction

According to a survey lead by McKinsey in 2010, more than 50 percent of executives evaluated “sustainability – the management of environmental, social, and governance issues – as very or extremely important in a wide range of areas, including new-product development, reputation building, and overall corporate strategy”. However, the survey shows that only a few companies are taking a proactive approach in order to implement sustainability in their activities. Only around 30 percent of executives consider sustainability as a priority and search actively for opportunities to invest in sustainability (Mckinsey, 2010).

Another study stated that Germany has more industry-leading sustainable companies than the United States, Britain and Japan combined. German companies appear as leaders in the field of sustainability (Dow Jones, 2013, p.9-10).

The present research combines these observations. And in particular how German companies try to integrate the concept of sustainability along their supply chain. Nowadays, multinationals spread their activities all over the world and have a potential influence in many different countries and are responsible for the well-being of many people, be it their employees or the communities shaped by their activities. This paper aims to identify how supplier assessment is becoming an important topic when analyzing sustainability integration into worldwide businesses.
2 Sustainable Supply Chain

Sustainability is currently the new buzzword, not only in our everyday life but also in the business world. It can be explained by many factors: a new way to consume energy, a better understanding of climate changes and an increasing transparency of environmental and social actions of organizations (Carter and Easton, 2011, p.46). The concept of the triple bottom line, coined by John Elkington in 1994 and key to sustainability, means that business success is no longer defined only by monetary gain but also by the impact that the activities of an organization have on society as a whole (Elkington, 1998).

For large firms, an indication that their level of commitment with sustainability is increasing is the numbers of reports published including actions towards sustainable development (Wu, Dunn and Forman, 2012, p.192). In addition, companies realize how social and environmental responsibility can boost their performance (Porter M.E. and C. van der Linde, 1995, p.120; Zadek, 2004, p.126). This includes contributing to communities, improving workplace conditions, eliminating waste and using resources more efficiently. However, it is still difficult to guarantee that companies are actually implementing what they publish and not just publishing good actions to impress their stakeholders (Kolk, 2003, p.289). It is clear though that environmental, social and economic responsibilities are not opposing forces (Tate, Ellram and Kirchoff, 2010, p.21-22).

With the rising awareness of consumer, incorporating sustainability into the corporate strategy is a way to match stakeholder’s expectations, from investors to communities, while taking into account social and environment impacts (Prokesch, 2010, p.1). Moreover, the increasing phenomena
of outsourcing and of international purchasing make relationships and co-
operation with suppliers directly related to supply chain sustainability and
overall business performance (Genovese, Lenny Koh, Bruno and Esposito,
2013, p.2868). A sustainable supply chain (SSC) performs well on traditional
measures of profit and loss as well as on an expanded conceptualization of
performance including social and natural dimensions (Pagell, 2009, p.44-55).
Through their management, firms act reasonably towards communi-
ties, while also gaining considerable financial and other intangible benefits
(Dey, LaGuardia and Srinivasan, 2011, p.1250). The overall performance of
the supply chain (SC) is improved by creating competitive advantages to all
members (Wu, Dunn and Forman, 2012, p.184). Nevertheless, many studies
show that, due to high complexity, a total integration of all participants
along the supply chain might be an inappropriate approach in practices
(Keating, Quazi, Kriz and Coltman, 2008; Douglas M. Lambert Martha C.
Cooper Janus D. Pagh, 1998; Choon Tan, Krause and Hanfield, 1998). In-
stead, firms rely on key SC members to promote integration (Choon Tan,
Supplier assessment (SA) refers to the process of gathering and processing
information in order to evaluate and approve the performance of suppliers
or potential supplier and to mitigate associated risks (Klassen and Vachon,
2003, p.340). The goal is to ensure the suppliers’ performance, with the pur-
pose of reducing cost, risk, and leading to continuous improvement in sus-
tainability aspects. Facing the challenge to implement sustainability along
the SC, companies have been developing strategies to extend their pro-
cesses of corporate governance to their SC partners (Kytle, Hamilton and
Ruggie, 2005, p.11). Working directly with suppliers is the only solution to
play a critical and direct role to achieve performance improvement for the
buyers (Krause, Scannell and Calantone, 2000, p.37). First, communicating the company's requirements to the supplier is necessary. Many companies build codes of conducts (CoC) to assess environmental or social impact of suppliers' activities across their global SC. A CoC is "a set of written principles, guidelines or standards, which are intended to improve the company's social and environmental performance" (Pedersen and Andersen, 2006, p.229). CoC works as a set of criteria for evaluating and selecting suppliers, and determines the minimum level of requirements in order to create a more sustainable supply chain. In 2008, over 92% of the world's largest 250 companies published a CoC (KPMG, 2008, p.5), a strategy to reduce the risks of negative publicity. A good example of thoughtful company is IKEA that in the end of the 90s realized how the environmental or social conditions of its suppliers could damage their image (Pedersen and Andersen, 2006, p.232). The IKEA CoC was then developed and defines what the company require from its suppliers in terms of working conditions, child labour, environment and forestry management and what suppliers can expect from the company.

As CoC is just a published document, it is particularly weak in terms of efficient monitoring, and most of the companies develop a complementary system to guarantee that the established requirements are being implemented (Kolk, Tulder and Welters, 1999, p.174). Among the vast possible methods to measure suppliers' sustainability, some might be highlighted: assessment guides, questionnaires, audits and on-site inspections. These methods raise the issue of how critical is the flow of information through supply chain. A SSC requires good communication between the company...
and their suppliers. The buyers have to communicate their standards and the assessment process allow these firms to know more about the suppliers’ performance (Dey, LaGuardia and Srinivasan, 2011, p.1247). After defining standards, communicating them to suppliers and building methods to assess their compliance, the companies decide when, how often and the operative manner in which to implement the assessment process, and consequently including incentives and sanctions from the obtained results (Peters, 2010, p.28). In the most extreme case, a negative evaluation may conclude the termination of the business relationship (Delmas and Montiel, 2009, p.179). Assessing suppliers is not a simple process, especially when firms have to deal with contractors and sub-contractors. The well-known case from Mattel exemplifies the challenges in assessing suppliers. The company had to recall more than 14 million toys after identifying that some of them were not in accordance with a specific safety regulation (lead painting for instance) due to contractors and sub-contractors failures (Roloff and Aßländer, 2010, p.525; Enderwick, 2008, p.221).

3 Methodology

Content Analysis was used to collect initiatives currently implemented by five selected companies from five different industries. This technique can be used for systematically collecting and analysing with a large number of words into fewer content categories (Weber, 1990, p.37). The study and evaluation of the published materials of companies allow to draw relevant information about sustainable activities and strate-
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ologies (Tate, Ellram and Kirchoff, 2010, p.32). The analysis of sustainable initiatives was made through the study of Corporate Responsibility Reports (CCR) which most of the time detail actions and information about environmental and social strategies decided by the company. They contain targets, goals, policies, programs and projects that contribute that make a supply chain more sustainable, through a cut of the company's carbon footprint and/or the increase of social responsibility (Lai, Wu and Wong, 2013). Additionally, corporate websites, annual reports (AR) and other documents were also used in order to collect more information. As the researched companies are well-known, well established within the German market and all follow the GRI standards, it was assumed that they really implement what they officially publish. They might implement more than it is published but they would improbably publish fake information. This method has this limitation and further research could be the use of additional external sources to confirm all the collected information.

The sample selection process followed two particular criteria, based on international and well recognized rankings. From an economic and financial point of view, all the five researched companies are part of the DAX group, the stock market index consisting of the 30 major German companies trading on the Frankfurt Stock Exchange. Using this ranking, it was possible to target German traded companies. For them, company's practices are expected to be transparent, updated, detailed and reliable. Secondly, all selected companies should be ranked in the Newsweek Magazine.

The MAN Group is one of Europe's leading companies in mechanical engineering employing a workforce of 53,500 worldwide. Today MAN can be defined through three activities: automotive industry, production of diesel
Table 1  Sample of five German companies

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAN</td>
<td>Vehicles &amp; Components</td>
</tr>
<tr>
<td>HeidelbergCement</td>
<td>Construction</td>
</tr>
<tr>
<td>ThyssenKrupp</td>
<td>Materials</td>
</tr>
<tr>
<td>Beiersdorf</td>
<td>Household &amp; Personal Products</td>
</tr>
<tr>
<td>RWE</td>
<td>Utilities</td>
</tr>
</tbody>
</table>

and turbomachinery. Thus, MAN supplies trucks, buses, diesel engines, turbomachinery and special gear units.

HeidelbergCement is one of the world’s largest cement producer, employing some 53 000 people in more than 40 countries. In 2010, 78 million tons of cement were produced. In the same year, it was the world’s third largest cement producer, the market leader in aggregates and fourth in ready-mix concrete.

ThyssenKrupp is a corporation based in Duisburg and Essen. There are currently around 160,000 employees in nearly 80 countries. It’s one of the largest steel producers in the world, and also manufactures elevators, automotive components and industrial services.
Beiersdorf AG is a company based in Hamburg that manufactures personal care products. Its brands include Labello and Nivea. Today more than 16000 people are working for Beiersdorf in 125 countries.

RWE is an electric utility company based in Essen. Through its different affiliates, the energy company supplies electricity to more than 16 million customers and gas to more than 8 million customers, mainly in Europe. RWE employs more than 66,000 people.

Table 2 presents the documents used to collect data about each of these companies.

<table>
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<tr>
<th>Company</th>
<th>Document used</th>
</tr>
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### Findings

#### 4.1 Extend Sustainability along the Supply Chain

All of the five selected companies stated that sustainability is part of their corporate spirit and understand supplier’s assessment/relationships as a strategy to extend the idea of sustainability along the supply chain. MAN considers “itself responsible for promoting sustainability along the entire value supply chain and thereby ensuring stable and efficient flows of goods and supplies”. HeidelbergCement explains that they are aware of being judged “according to [their] success in terms of ensuring compliance with
sustainability standards throughout our supplier chain”. Beiersdorf understands that in order to offer respectful and high-quality products, they need to “guarantee that [their] suppliers also assume social, ecological and economic responsibility” (Beiersdorf, n.d., p. responsible sourcing); in other words, that the entire supply chain is aligned in the same cause. The company considers that we are all responsible for the common present and future and that it’s possible to contribute to a better world by respecting some principles. RWE “is aware of the role it plays in society and of its responsibility towards its customers and business partners as well as its shareholders and employees”. Because of this responsibility, RWE commits itself to respect and implement sustainability principles along its SC and with its suppliers. At last, ThyssenKrupp “considers sustainability to be an essential component of [their] business processes”. That is why their suppliers are “an integrated part of [their] sustainability strategy”.

Thus, all companies insist on the fact that fair and long-term relationships with suppliers are essential to push them to implement sustainability into their activities. Building strong links with suppliers allow these companies to go deeper in the process of greening the supply chain. HeidelbergCement focus on the importance of the different dimensions, be it technical, commercial or environmental in order to build efficient collaboration with suppliers. MAN aims to engage in long-term relationships with their suppliers. At RWE, all processes of selection and assessment of suppliers aim to build close and long-term cooperation with the best ones. That applies for the purchase of goods, services and plant components. For ThyssenKrupp, “supplier relationships are also geared to the long term and designed to guarantee stability of supply”.
4.2 **Sustainability Requirements**

The first step of implementing sustainability along the supply chain is to make the requirement available to the suppliers. This communication is made through different kinds of documents such as CoC or purchasing guidelines. For being worldwide, it is expected that all researched companies have procurement guidelines and established procedures about purchasing. However only documents from MAN, RWE and HeidelbergCement were available for public consultation.

RWE developed a precise and detailed procurement guideline where supplier relationship and assessment are presented. The criteria to control suppliers are described. Expect the conventional criteria such as commercial aspects, RWE cares about industrial safety and environmental protection. Furthermore, for the procurement of biomass, RWE uses the Green Gold Label established by Essent in 2002. It is a track and trace system and a certification programme for assurance of sustainable biomass sourcing. A label is an easy and clear requirement that companies can use. HeidelbergCement has developed purchasing guidelines for the procurement of goods and service to guide supplier relationship. The document presents health, environmental and safety aspects as important in the assessment of suppliers. Moreover, environment and ethics are presented as two dimensions that procurement teams take into account. All procurement processes of MAN refer to the Volkswagen Group which developed a document with all the requirements regarding sustainability in its relationships with business partners.

Another key document to communicate principles and goals the company wants to respect and wants their partner to respect is the Code of Conduct.
(all companies condemn child labour, corruption and discrimination -
based on gender, races or sexual orientation-, and demand employment
rights, environment protection and occupational safety). All researched
companies have developed codes dedicated to suppliers and business
partners, except RWE which uses the same CoC for employees and suppli-
ers. Although some considerable differences were identified. First is the
preciseness of the document. Except RWE, all companies refer to interna-
tional standards, such as the International Labor Organization (ILO), ISO or
OHSAS 18001 for ThyssenKrupp. Beiersdorf has a precise CoC by quoting
the relevant standards for each requirement. RWE built its CoC through the
UN Global Compact principles in the areas of human rights, labor, environ-
ment and anti-corruption. The document outlines goals and principles
which guide its business activities, though does not mention international
standards or labels.

Another distinction is about the design of CoC. While RWE, MAN and
ThyssenKrupp seem to invest a lot on building a flourished document, Hei-
delbergCement and Beiersdorf’s documents look like working documents.
A last variation can be noticed in the scope considered in the CoC. All com-
panies, except for RWE include sub-contractors in their CoC. Suppliers are
required to claim the same demands from them. It shows a wish to extend
sustainability as far as possible along the supply chain.

4.3 Supplier Monitoring and Assessment

Assessment can be conducted by different ways. One is through Risk Man-
agement which consists of identification, assessment and prioritization of
risk in order to prevent problems. It is said to be the first step of sustainable
assessment. As worldwide companies, all five implement definitely risk management procedures, but some of them highlight it in their corporate web-sites and reports as a way to be more sustainable. RWE introduced the Counterparty Risk Assessment, made at least every year and potentially up to 4 times per year if necessary. This procedure is based on many criteria since suspicions relating to non-sustainable actions were raised (money laundering, financial crimes, terrorist organizations and financing, corruption and breaches of ethical standards, human rights and environmental destruction). RWE says that business relations will be suspended if suspicions arising from the counterpart Risk Assessment are confirmed. Additionally, a software identifies any emerging corruption risks at an early depending on the country and sector profile. ThyssenKrupp uses a global risk management tool for “building an integrated risk map” in order to “ensure that earnings and cash risks are recorded locally by operational risk managers and reported through a series of approval and aggregation processes via the business area management boards to corporate level”. Many risks are taken into consideration such as those associated with information security, compliance, sales and environmental. HeidelbergCement developed a Group-wide risk management system, coordinated by the Group Insurance&Corporate Risk Department. All risks that could threaten the Group, including social and ecological risks, all over the plants and regions, are recorded systematically. MAN and Beiersdorf don’t inform about Risk Management in their Sustainability reports and pages related to sustainability.
All five researched companies described in public documents their supplier assessment process. Beiersdorf has established auditing procedures to ensure that the principles of the CoC are respected via Standardized Self-assessment Questionnaires (SAQ) provided by SEDEX, recognition of third party audits and corrective action plans. SEDEX is a non-profit organization dedicated on “driving improvements in ethical and responsible business practices in global supply chains” by helping companies to assess suppliers via easy tools and to drive green improvements along the supply chain. SEDEX uses online databases that encourage members to store, share and report on information in four key areas which are Labour Standards, Health & Safety, Environment and Business Ethics. In order to ensure relevant environmental and safety data, a follow-up process to enhance data quality and coverage is also carried out. Additionally, SEDEX has developed SMETA, an audit procedure which consists in a compilation of good practices in ethical audit technique. SMETA is designed to reduce duplication of effort in ethical trade auditing by developing several tools to assess suppliers, such as a common best practice guidance on conducting ethical trade audits, a common set of instructions on the items to be checked by auditors or a common audit report format. Additionally, Beiersdorf is a member of AIM Progress which is a forum of leading Fast Moving Consumer Goods (FMCG) manufacturers, assembled to enable and promote responsible sourcing practices and sustainable supply chains, while reducing the duplication of supplier assessments. To reduce audit duplication, costs and fatigue companies - through the Mutual Recognition mechanism - recognize supplier audits completed on behalf of another company. Any violation of the CoC
may “provide Beiersdorf with a reason to terminate the business relationship, including any subordinate delivery agreements” (Beiersdorf, n.d.). HeidelbergCement enforces audits, however, details on if they are implemented and how, are not made public. In the CoC, the possibility of assessment is mentioned but without any conditions or information about the application but “a termination of the contractual relationship will ultimately result” if necessary (Heidelbergcement, 2011b). Furthermore HeidelbergCement is part of the Cement Sustainability Initiative (CSI) which is a global effort by 25 major cement producers with operations in more than 100 countries who believe there is a strong business case for the pursuit of sustainable development. The CSI Guidelines for Emissions Monitoring and Reporting in the Cement Industry have been developed and identify the specific pollutants and emission sources which all CSI member companies have agreed to monitor.

ThyssenKrupp declares that they regularly conduct a supplier compliance review. Suppliers are supposed to complete self-assessment questionnaire once a year. If needed, ThyssenKrupp reserves the right to appoint a qualified third party to perform sustainability audit at suppliers’ sites. This procedure is explained in details in the company CoC. An interesting information is that “the supplier shall bear all costs and expense for this audit if the annual turnover of the supplier with ThyssenKrupp exceeds 100,000 €. The audit cost should usually not exceed a limit of 5,000 Euros.” If a supplier is suspected of violating any of the principles presented in the CoC, the company reserves the right on the one hand to request from the supplier that all relevant information be disclosed and on the other to stop any business with the supplier. In the event that a supplier evidently fails to follow
requirements or refuses to set up measures in order to improve its sustainability, ThyssenKrupp will immediately end all contracts with the supplier. One of the four pillars of sustainability developed by the Volkswagen Group and integrated by MAN is supplier monitoring and development. MAN deals with sustainability requirement towards their suppliers, from the cognizance of the sustainability requirements to the implementation of sustainability in supplier relations. According to this process, MAN integrates sustainability into the quality process audit and leads sustainability questionnaires. No information about these questionnaires, their content, their use or if they are fulfilled by suppliers or MAN teams are available. The integration of sustainability training on suppliers into the process is an interesting topic. An e-platform gathers all information, each supplier is called to fulfil an online questionnaire about sustainability, and has access to e-learning options. In the CoC, MAN specifies that any business relationship can be terminated if the basic principles are not implemented.

RWE verifies each suppliers's compliance with the CoC via self-questionnaires and audits of supplier's sites. Suppliers are required to answer these self-evaluation questionnaires in order to prove that they fulfil the requirements. Future targets and goals are fixed with suppliers. Simultaneously, RWE built an e-platform where suppliers can find all documents and information about the requirements. Through this platform, suppliers have access to the requirements, questionnaires and also to all the Business Terms and Conditions. RWE says it does not have any business dealings with suppliers which are known to infringe the principles of its CoC. They seem to deal only with suppliers which follow the sustainable requirements. Furthermore, RWE is part of Better Coal which gathers many actors of the coal
mining sector in order to improve working and environmental conditions in mining sites. As of now, only one on-site audit has been led by a third-party firm, but in the future the idea of this project is to implement more audits and assessment.

5 Discussions and Conclusion

As shown in this research, sustainability seems to be a new buzzword in academia and in the business world. As companies face pressure from customers and governments, they are investing on sustainable actions and realizing that following the triple bottom line concept can be profitable. All researched firms seem to be actively involved in sustainable development through the strategy of supplier assessment. They realized that working directly and deeply with suppliers may reduce risks overall and support the achievement of performance improvement for buyers (Krause, Scannell and Calantone, 2000). While in most companies worldwide corporate sustainability is still restricted to internal activities, the researched and mentioned companies have been implementing a broader strategy considering also their suppliers. They seem to integrate sustainability in purchasing decisions as suggested in the literature (Gimenez and Sierra, 2012, p.191).

The use of standards and internationally well-known references are practices that make requirements clear and precise. They should be an extension of the companies values and of the CoC a document that formalizes and communicate the importance of their stakeholders' commitments. Among the sample, social requirements are precise thanks to ILO stand-
ards, while environmental aspects seems to be vague and subjective. Ex-
cept for the ISO 14001 standards mentioned by Beiersdorf, ThyssenKrupp,
MAN and HeidelbergCement, for instance, no goals towards their suppliers
were found in terms of reducing emissions, waste recycling rate, reduction
of water and energy consumption, optimization of processes. The process
of tracking and tracing data across the supply chain is a known challenge
that may justify this shortage (Dey, LaGuardia and Srinivasan, 2011). How-
ever, one may be aware that information management is one of the core
and critical processes when assessing suppliers.

Besides the lack of goals and key performance indicators towards their
business partners, some other opportunities for improvements in compa-
nies' CoC were identified. Firms usually use the CoC to protect them-selves
from bad buzz, which can be triggered by a single unsustainable operation
(Dey, LaGuardia and Srinivasan, 2011, p.1237). All companies stated that
their CoC is a reference document when assessing suppliers, but it was not
clear how the audit process is implemented and how they verify suppliers' 
compliance with the established standards.

This deficiency of preciseness regarding companies' assessment process
raises a question: are they powerful enough to impose sustainable stand-
ards to their suppliers? The question is even more critical in raw material
procurement. Is it economically and strategically possible to reject a fuel
supplier for RWE, for instance, when they don't comply with environmental
or human standards, considering the current energy market situation?

Most requirements developed in CoC, Corporate Responsibility Report and
purchasing guidelines are built for goods and services and not for raw ma-
terials. HeidelbergCement and RWE specify that their documents are not
applicable for fuel and cement. It shows an exceptional situation for this kind of purchase. A second relevant observation points to the suppliers' origins. It is easier to require sustainable criteria for suppliers based in Europe where standards are high and well controlled. A different reality exists when supplying from companies in developing countries. Therefore, supplier assessment seems to depend on the supplied materials (products or services), on suppliers' origins and on the closeness with its customers. The closer to the customers, the more developed are the actions related to supplier assessment. Beiersdorf, which produces household & personal products, seems to get more pressure from its customers and thus implement more actions towards its suppliers. Collaboration between companies may also be a solution to make supplier assessment more feasible. Better Coal initiative, partially launched by RWE allows the establishment of standards and evaluation of results on third-party audits. The AIM Progress Initiative, for instance, intends to share and learn from each member about responsible sourcing practices and create synergies through mutual recognition of audits. As audits and assessment can be complicated and costly to implement, the motto “an audit for one is an audit for all” could foster assessments and reduce the cost in terms of money, time and qualification for firms. Cement Sustainability Initiative gathers companies accounting around 30% of the world’s cement production what could enable the integration of sustainability into the Cement Industry. For companies with difficulties on setting up clear goals and requirements for their suppliers, collaborative approaches such as the Better
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Coal Initiative allow integration of participants, standardization of requirements, cost reduction and the impact of companies' business on the environment and people's lives.

The present paper aimed to understand how some German companies have been using supplier assessment as a new strategy to improve their sustainability. It was shown that the researched companies, recognized as benchmarks of sustainability, have been investing in this issue and are facing diverse challenges regarding data management, transparency, standards and goals setting as well as collaboration with their supply chain business partners.
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