International Supply Chain Management: Lever for Sustainable Development?
An Analysis between Discourses and Applications

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ABSTRACT

This article focuses on the potential ways of sustainable development offered by Supply Chain Management (Sustainable Supply Chain Management - S.S.C.M.). After a definition and a theoretical survey of the various concepts, a review of the literature made it possible to bring out the opportunities of SD actions in SC management. These actions are indexed according to two dimensions: the environmental axis and the CSR axis. Then, in a second phase, having circumscribed the SD-oriented procedures, we studied the 2005 SD reports of two multinational companies with different types of activities (distribution and sport product manufacturing). We used a methodology inspired by the lexical and content analysis. Our results allow us to suggest that SSC management is only in its initial stage (including the international companies), that there is undeniably a difference between commitment and practice. The limits and complexity of such a management explain the differences. The opportunities offered by the SD procedures in these two companies, namely the marketing strategy of differentiation and the concern of the public image with the parties were brought out revealing that a company is not philanthropic but on the contrary pursues its capitalistic aims. This article brings teleological lessons through an inventory of the possible SSCM actions. It also gives rise to many questions which by no means are value judgments on the SSCM practice of the analyzed companies. On the contrary, our goal is to bring food for thought in the perspective of future research which will certainly be rich and varied.

Key Words : SCM, SD, SSCM, Theory of the Organizations, Content and Textual Data Analysis.
Defined - or rather given in the style of the day - in 1987 by the W.C.E.D. (Brundland, 1987; Bardelli and Bello, 2003), sustainable development (S.D.) “meets the needs for the present without compromising the ability for the future generations to meet their own needs”. This challenge implies the often difficult combination of three major dimensions of S.D.: the environmental dimension, the economic dimension and the social dimension, often called the “triple bottom line” (Ficksel, 1996).

Increasing attention is given to the environmental dimension (Skjoett-Larsen, 2000) and people say that their most commonly perceived enemies are: manufacturing and production operations (Ficksel, *Ibid.*). This awakening involved a need for an exchange in manufacturing philosophy (Beamon, 1999) and big multinational companies have integrated sustainable development in their general strategy and give environmental accounts as appendix to their annual reports. In the logistic field, taking into account sustainable development is very important because this area may be particularly environmentally damaging (Welford, 2003).

Over the past decade, in a context dominated by maintaining cost efficiency of logistic activities (Masson Franzil, 2005) and request of agility to change (Huang and *Al.*, 2005), firms sought to take up this economic challenge through the approach of supply chain management (S.C.M.). SCM was the subject of many academic works (Gardner and Cooper, 2003) and its current definition covers multiple inter-firms functions and processes and aims at generating an integrated approach of value for shareholders (Mentzer et *Al.*, 2001).

According to Woods (2003: 21), many aspects of SCM (e.g. improved logistics, shared information systems, product quality, integrity throughout the chain…) contribute to the operational effectiveness of a chain. Therefore, operational effectiveness is necessary but not sufficient to improve business performance. The environmental and sustainable dimensions of S.C.M. seems important to reach this objective (Gbedemah, 2004). Therefore, there is a need to look for a new sustainable supply chain management approach (S.S.C.M.).
Consequently, it appears important to ponder this question: Can (International) Supply Chain Management Contribute to current Requirements in Terms of Sustainable Development?

Little attention has been devoted to these relatively new questions (Trienekens and Al., 2003), and in response to more stringent environmental regulations and changes in environmental and industrial management philosophy, the goal of this paper is to improve our understanding of how S.C.M. really contributes to sustainable development. Is SSCM an opportunity for the company that adopts it? Are there limits and which ones?

In order to answer these questionings, in a first section (I.), a state of the art revisits the concepts of SCM and SSCM (1.1.) and examine them in the light of some major currents concerned with the theory of the organizations (1.2.).

Then, in a second phase, the main strategies of sustainable development oriented towards sustainable development and specially environmental dimension where the dominant words are: "Reduction" and "Revisions" are visited and their impact and limits on the positioning of the Supply Chain are underlined (II.). This synthesis in addition constitutes a relevant source of lessons for the manageiale action. In addition to these analytical investigations, the article illustrates and discusses this problematic by using examples of practices implemented by two big multinational companies (III.) We have adopted a methodology based on an analysis of annual reports on durable development published by big multinationals. Finally, in a synthetic and critical way, the article widens on Conclusive Discussion opening on varied tracks of future research.

I. STATE OF THE ART

Due to the confusing nature of the theme, before tackling the empirical part, it would seem sensible to look into the concept of supply chain management (SCM), central pivot of the
problem and especially to clarify it before progressing towards that of Sustainable Supply Chain Management (SSCM) (1.1.). Once the concept has been stabilized, we will bring out the fundamental features of the major currents which belong to the theories of organization allowing to grasp this type of management that has become extremely popular (1.2.).

1.1. Supply Chain Management Re-Defined: from the traditional version (SCM) to the concept of Sustainable Supply Chain Management (SSCM)

Supply chain management (SCM) is a relatively recent managerial approach\(^1\) which, since the beginning of 1990s, unquestionably constitutes one of the most fashionable and studied logistic strategies, in particular with the Anglo-Saxon literature (e.g. Scott and Westbrook, 1991; Lee and Billington, 1993; Arntzen et al., 1995; Beamon, 1996; Bowersox, 1997; Larson and Halldorson, 2002). First of all and in order to try to suppress the confusions which can be found even within academic literature, we will make two important remarks and we’ll take side. (1) SCM relates to the management of a supply chain which is either product-oriented, or company-centered. Thus, when the supply chain is tackled to the “company” angle, all the chains that include the ones of the given company, of the suppliers, of the customers, sometimes even the one of the suppliers’ suppliers, can be taken into account. Therefore a supply chain can be broken down into many levels, each level obviously generating the complexity of management. Thus, in agreement with Premkumar (2000), a

\(^{1}\) The first publications on SCM date from the middle of the 1980s (Jones T & Riley W, 1985). However, in Alderson W. (1957) *Marketing Behavior and Executive Action: With functionalist Approach to Marketing Theory* (Irwin: Homewood, IT), the concept of total system of distribution and its consequences as regards reduction of costs and risks are already studied in the field of marketing. In Forrester J.W., 1961, *Industrial Dynamics* (MIT PRESS), the decompartmentalization of the functions in the company which must from now on be apprehended like a system of flow of information, goods, human resources is also already put forward.
level 2 chain is already very complex. In this paper, we will focus on "Company" approach.

(2) SCM can generally be interpreted in three ways (Mentzer et Al, 2001): (1) it can be a management philosophy (systemic approach of supply chain management or strategic orientation gathering the actors for the best performance or meeting the consumer/customer’s expectations).

(2) The supply chain management can also be interpreted as the application of a chosen management philosophy or finally (3) as a body of management processes allowing to manage relational, informational and products flows between two or several companies, in view of providing added value to the customer through a synchronized management of the different flows, from the supplier to the consumer. Most definitions in Anglo-saxon literature (e.g.: Christopher, 1998, Premkumar, Ibid.; Stock and Lambert, 2001; Mentzer et Al, 2001; Bixby et Al., 2004 etc.) are focused on the third viewpoint, and so are we.

Beyond the definitions, it is interesting to notice that this concept is not really stabilized whereas paradoxically, as many studies have shown, by integrating more and more "trades" and levels (Premkumar, Ibid.; Huang et Al., 2005), it also gains (above all...) complexity. As we will see later, the integration of the concept (itself very large...) of "Sustainable Development" brings an additional degree of complexity (Beamon, 1999) and leads to epistemological, theoretical, strategic and organisational reconsiderations. Let us note with Skjoett-Larsen (2000) that, beyond the speeches and others best practices for successful SCM implementation that proliferate, even within academic literature, few companies, with the exception of multinationals, practise (have the means to start and follow up…) the S.C.M. as defined in literature. Having recently carried out a research in France with the Dairy Industry (Masson Franzil, 2005) and asked two among the top twenty world companies, we have found that those practices remain very partial, even if the popular use of the term" can lead us to

2 In these groups, indeed, the logistics managers are officially qualified as "SC Chief Manager".
believe the opposite. Therefore, we find it pertinent to add the adjective "international" to the title of this paper since practically only world companies have a Supply Chain management associated\(^3\) with the theoretical plans.

**S.S.C.M.**

The fact of taking into account the SD which has three (four\(^4\)…) dimensions (economic, social and environmental) and which takes a growing importance in the political and social landscape, but also in the industrial field (Preschey, 2005), widens the concept of SCM with that of Sustainable Supply Chain Management. This concept which according to Schmidt (2005) not yet very widespread, including in the big organizations, is concerned with internal and external management of supply chain integrating the dimensions of sustainable development. The first steps of the S.S.C.M. concept can be found in that of the Extended Supply Chain as proposed in the works of Beamon (1999). As a matter of fact, this type of supply chain includes recycling, re-using and reprocessing products and packaging (Beamon, *Ibid.*). This additional activities and long-term objectives (since they come within the scope of SD) contributes to complexify SC management (necessity to master the additional inversed flows - increase of the number of actors through associating to the objectives of the different parties, structural strategic modifications, etc.). In a recent research on inversed logistics of electrical and electronic waste, Monnet (2005: 55) puts forward the difficulties met in supply chain management taking into account the expected results in the triple bottom line. Simultaneously, the literature is also interested in the increasing value for the parties and the

\(^3\) We use the word "associated" because, in reality, considering the complexity of SCM, there are more partial, parcelled out or only internal or multisite versions than integrated or comprehensive versions(Mentzer et *Al.*, 2001).

\(^4\) Indeed, the cultural dimension has been unanimously adopted by the 31\(^{st}\) Session of the General Conference of Unesco (Paris, 2/11/2001) and added by the World Summit on Sustainable Development of Johannesburg South Africa (26/8 - 4/9/ 2002).
competitive advantage that can be brought by the fact of taking into account the principles of SD in the companies (Lee and Amaral, 2002; Welford, 2003). All the functions become potential tanks for sustainable development. Paradoxically, if it is proven that supply chain management is complex, this complexity unquestionably offers treasures (unexplored or insufficiently explored) of beneficial opportunities for the companies which go in for this sustainable development strategy.

1.2. Theoretical foundations

The goal of this paper is not to elaborate an inventory of the many theoretical works on S.C.M. As seen above, the interpretations and different approaches of the SCM concept inevitably infer different theoretical foundations. We will however show a few major features by focusing on approaches belonging to the theories of organization which seem effectively associated the concept of S.C.M. as we interpret it (Cf: 1.1.).

It is in the works on the economic approaches of the distribution channels that it is advisable to seek the seminal fundamentals of the concept of SCM. Let us simply recall that logistics "was introduced" into the distribution channel when Bowersox and Morash (1989) distinguished two dimensions in close independent interaction in the distribution channel: the transactional dimension and the logistic dimension (Paché, 2000). In a "Marketing"-oriented approach, this analysis solely limited to the functional aspect of the channels and ignoring the consumer, was enriched by Bucklin (1966). Through the model of "Shift and Speculation" (Bucklin, 1965), heterogeneous expectations of all the categories of actors (producers, distributors, consumers) were taken into account. The economic and behaviorist analyses can then be found in an integrating model, the political paradigm of economy (Stern and Reve, 1980). Then, the strategic dimension founded on the model of Porter (1982) brought the essential touch of managerial thought, the company strategies influencing the channel
configurations. The current research is still trying to get to a higher degree which deviates from the producer-consumer dyad to take into account the contextual evolutions such as (and the list is not exhaustive) the rise of information technologies, the emergence of new forms of companies (company network), outsourcing policies...

As this rapid survey shows, the paradigms which can "explain" the multiple facets and dimensions of the supply chain are numerous. We will adopt three approaches briefly summarized hereafter.

**Network Theory**

The theory of the social networks is a relatively recent approach (Coleman, 1990; Burt, 1997) whose principles are to be found in works on the cooperation between companies. Richardson (1972) brought the major developments on cooperation. He "was well ahead of his time, when he gave substance to the idea that even the cooperation between competitors is likely to stimulate competition" (Teece, 1992). From the 1980s, indeed, following the emergence of new organisational forms based on a logic of cooperation, the corporate networks became a dominant set of research themes in strategic management (Masson Franzil, 2001). How can we locate the concept of supply chain management in these approaches? The supply chain has a reticular nature (Mariotti, 1999: 72). Its management is linked to flows of products and associated information, and is based on inter-organizational but also inter-individual relations; it is prompted by collaborative logics which are not purely economic but utilize the notions of power, confidence (Uzzi, 1997) and social capital. Supply chain management is established in view of carrying out a joint task, namely the more or less complex management of the

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5 This idea was already developed in the 1970s by the French economist F. PERROUX who recommended to regard competition and cooperation as complementary and not opposite strategies.
multilevel activities of a logistic chain. In the long run, it can lead to a relational revenue due to the combined incremental effects of acquiring knowledge, know-how, expertise, competences of the parties (De Bandt, 1996). To some extent, it is a non-formalized market, based on the "win to win" principle, the subtle "cost-benefit" balance (Paché, 2000)...

*The Economic approach.*

The neo-institutional current of Transaction Costs Economics (TCE) was also interested in the cooperative logic of the networks and, according to Williamson (1991), the cooperation between companies would make it possible to minimize the costs of transaction since it seems a hybrid organizational form between the market and the hierarchy. This form of management would be advantageous as regards transaction costs since the introduction of relationships based on cooperative confidence would cause to reduce information asymmetries and the opportunism of the parties to an exchange. Within this logic, indeed, supply chain management would be a powerful mode of coordination for the companies that would adopt it (Premkumar, 2000) since the transaction costs (and in particular costs of coordination\(^6\)) would be reduced on account of a reduction in informational uncertainty due notably to the widespread use of Inter-Organizational Systems and specially the Electronic Data Interchange Technology (Premkumar, *Ibid.*). In agreement with Bucklin (1966), companies may find it beneficial to establish, in their organizations and in particular in their SCM, processes favoring confidence in an incertainly anonymous business environment. This building up of relations of confidence becomes almost one of the core competences\(^7\) of the company.

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\(^6\) According to Premkumar (2000, *Ibid.*), Coordination costs includes the cost of exchanging information on product, demand, etc.

\(^7\) This concept due to Prahalad and Hamel (1990), brings out the strategic resource base view (Penrose, 1959) which also constitutes a theoretical current, certain precepts of which can explain SSCM.
The Industrial Approach: The J Company Theory

Although little used in works on logistics, this approach seems however to have an explanatory potential with regards to several principles which are closely akin to the holistic view of supply chain management in a sustainable development perspective. Ohnism (or Toyota System) practised by the “J” company (contrary to Taylorism adopted by the “A” company) constitutes a set of very flexible organisational innovations, "well adapted to the most difficult conditions of diversification" (Coriat, Op. Cit., : 19). Beyond the system of production which thus concerns internal organization, this theory is also linked to another series of innovations relating to the modalities of the inter-company reports and in particular the organization of the relationship between customers and subcontractors. The aspects which thus appear extremely relevant with regards to internal management of the supply chain within a logic of sustainable development are the following:

- A concern to avoid wasting (principle of zero reject),
- A wish to establish multidisciplinary competences,
- Just in Time,\(^8\)
- To favor organizational innovation (in the evolutionary sense),
- To synchronize real flows and information flows,
- A spirit of transversality... in particular.

\(^8\) However, JIT requires frequent deliveries of materials and parts and thus generates additional traffic. Here there is a dilemma which logistics managers have to solve putting forward various elements of which: value of goods, interest rates, service level, freight rates...(Wu and Dunn, 1995, Ibid.). Thus, Rao et Al. (1991: 107) coined that “with environmental issues considered in the inventory decisions, frequent deliveries in a JIT operation may not be favourable because they add pressure to road traffic and create demands for new roads”
All these aspects are found in the internal management of a supply chain together with a will of application of the principles of sustainable development which must be flexible, nimble, dynamic and fast in its decisions (Rondinelli and Berry, 1999, *Ibid*).

Concerning the aspects of external management, the principles developed by Ohno can be found in the philosophy of management of the SD-oriented supply chain because “the innovations concerning the individual company extend to the intercompany relations in particular when it comes to the network of relations woven between a parent company and its suppliers and sub-contractors” (*Coriat, Ibid.*, 152).

This analysis and these connections allow us to think that the principles of the DD will be more easily adopted in the companies with a management having strongly integrated some of the strong principles of Ohnism.

Finally, from a theoretical point of view, this brief and certainly incomplete inventory⁹ leads us however to conclude on the incapacity of the theories of organization to entirely explain the concept of Supply Chain Management (and furthermore that of SSCM where a civic dimension is added to a concept already extremely encumbered!) when certain authors hoped that it would “conceptually bridge the gap between upstream and downstream logistics” (Paché and Colin, 2000). This incompleteness is also due to the extremely transversal character of the function and the multitude of actors along a logistic chain and offers on the other hand a very fertile field of research to which we will return with concrete proposals in conclusion of this talk.

Following this inventory, the second part, based on the literature, will propose the actions and opportunities offered by the S.CM from a S.D point of view, this concept being clarified

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⁹ Indeed, other currents could have been mentioned: Agency theory, Game theory, Resource Base View… to quote only the most cited in the literature.
initially (2.1.). These SD-oriented actions and opportunities come in two axes: the environment axis (2.3.) and Corporate Social Responsibility (C.S.R.) axis (2.4.).

II. SCM OPPORTUNITIES OF ACTIONS FOR SUSTAINABLE DEVELOPMENT

Would supply chain management be precursory in the integration of the concept of sustainable development? To try to answer this question, we will look into the developments which follow the general concept of sustainable development (2.1.). From an abundant literature which is often only interested in one logistic policy integrating sustainable development or interested only in the environmental aspect while neglecting social responsibility, we listed the possible axes and their strategies throughout the supply chain (2.2.). Those are bicephalous: they are indeed concerned with the “Environment” axis (1) and Ethics (2) together with the C.S.R. axis. In agreement with Welford (2003) both dimensions contribute to the goal of sustainable development and become new business opportunities. Planning one without the other just as considering only one part of the chain by being unaware of the whole would only be a superficial approach without advantageous long and medium term effects (Beamon, 1999).

2.1. Sustainable Development

The main (and ambitious...) idea of sustainable development - as an international concept that has been widely adopted by companies - is to reconcile global economic development with a harmonious social evolution while safeguarding environmental resources. This philosophical and overall goal contains several fundamental subjacent concepts:

- **holistic point of view and reasoning**: the holistic approach is related to the concept of the "holon", a term coined by Arthur Koestler in the 1960s. According to Ulietu et al. (2001), the
term “holon” is an amalgamation of the latin word “holos” (meaning whole) and the suffix “on” which implies particle or part. The term comes from a recognition that any entity in a system is simultaneously a whole entity comprised of sub-entities and a sub-entity portion of one or more super-entities. Thus, concerning sustainable development, the recognition that our use of technology has an impact on our environment. Tackling the complex problems from the holistic point of view makes it possible to recognize the interconnection of the elements and to act consequently. We will look into the complex systems of sustainable development and of SCM according to a holistic approach.

- **Ecology:** coming from the terms "oikos" (house) and "logos" (study), Preschey (2005, Ibid: 59-60) teaches us that "the first and fundamental direction of the term means the attention paid to the house, residence of man". The adoption of a holistic view of ecology, a component of sustainable development in its dimension of durability, thus makes it possible to establish the bond between the ethical, cultural, societal, economic, and environmental questions... There is an ecological dimension in the concept of SCM since the eco-design or S.P.S.D. (Sustainable Products and Service Development, a wider version including services) defines itself as "the process of making products or services in a more sustainable way throughout their entire lifecycle, from conception to end of life" (Maxwell and Van der Vorst, 2003: 884). Thus this requires a strategic approach which relates to all the levels of the company, a long-term vision, multidisciplinary competences (Dewberry, 1995) and relating to the logistic function, and to internal and external SCM dynamic.

- ** Freedoms and human rights :** they are the core of sustainable development.

- **Four pillars of sustainable development:** environment, economics, society, culture.
2.2. Two axis of Strategies for Sustainable Supply Chain Management

Environment Axis:

On the environmental level which interests logistics more particularly, we refer to Brunet (2004: 75) who integrates in this dimension: "biodiversity (protection and threats with in particular the primary issues of forests and GMO), water, renewable natural resources, exhaustion of fossil resources, wastes, global warming and greenhouse effect, continental water pollutions". Concerning the related management we have adopted the definition of Hewitt and Gary (1998) for which EM is “the process of reducing the environmental impact of an organization or people’s activities through the control of all aspects of their operations that can cause or lead to an impact on the environment\textsuperscript{10}”. Still more precisely, ISO 14001 (ISO, 1996) defines it as: “that part of the overall management system which includes the organizational structure, planning activities, responsibilities, practices, procedures, processes and resources for developing, implementing, achieving, reviewing and maintaining the environmental policy.”

As we can notice, several of the cited factors are directly related to the activities of the supply chain, and according to the holistic logic, the ignored elements of one or the other dimension naturally have an impact on the others. In the following table (Table 1), the main strategies of sustainable development oriented towards the environment where the dominant words are "Reduction" and "Revision" are now visited. Their impact on the positioning of the Supply Chain are underlined and also their limits.

Table 1. Main Strategies of Sustainable Development (Environment Axis)

<table>
<thead>
<tr>
<th>S.D. Progress Axes</th>
<th>S.C. Activities concerned</th>
<th>Single or Parallel Strategies</th>
<th>Opportunities</th>
<th>Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduction:</td>
<td>Physical logistics activities in particular: transport, storage.</td>
<td><strong>Substitution:</strong> Alternatives: river or rail transport, fuel and other energy-operated equipment (bio-fuels). Design of flexible platforms near distribution centers or common with other companies.</td>
<td>- To reconsider the investments, to adopt a long term vision (Robert and Al., 2002). - Sustainable strategic planning (Preschey, 2005) according to a return on long-term investments of the SD equipment carried out, flexible investments. - To adopt the principle of precaution (Precautionary principle) (especially in a very dubious economic context)</td>
<td>- Waterways not always existing or incomplete. Hence total or partial resorting to road transport. - Less pollution but not removed - Firms do not always have necessary multidisciplinary competences - Fear of change and risk taking</td>
</tr>
<tr>
<td>Exhaustion</td>
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<tr>
<td>of fossil reserves</td>
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<tr>
<td>Relocalization:</td>
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<tr>
<td>of productions and supplying (Skjoett-Larsen, 2000) to reduce distances...</td>
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<tr>
<td>Dematerialization:</td>
<td>- Reduction of equipment flows by reordering of logistic organization: (for ex. arbitration between reduction of the number of warehouses and loading of trucks).</td>
<td>- To have a reliable, efficient information system (Ex. ECR\textsuperscript{11} (Wu and Dunn, 1995)</td>
<td>- Increased monitoring if available - To establish relations based on confidence with service providers and other suppliers - Increase costs (?)</td>
<td></td>
</tr>
</tbody>
</table>

\textsuperscript{11} Efficient customer response enables each player in the network to synchronise its production and logistics resources.
<table>
<thead>
<tr>
<th>Révision</th>
<th></th>
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<tbody>
<tr>
<td>Equipments (vehicles) to be maintained rigorously and to be renewed regularly (well-maintained or new equipment is less polluting).</td>
<td>- To reconsider the supply chain (ex: to decrease the number of cargoes returning empty)</td>
<td>- Less pollution but not removed</td>
</tr>
<tr>
<td></td>
<td>- Increase Costs</td>
<td>- Decreased but not removed Costs</td>
</tr>
<tr>
<td><strong>Reduction:</strong></td>
<td><strong>Exhaustion:</strong></td>
<td><strong>Conditioning:</strong></td>
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<td>----------------</td>
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</tr>
<tr>
<td>Reduction:</td>
<td>Wastes management</td>
<td>All supply chain (internal and external)</td>
</tr>
<tr>
<td>Exhaustion of fossil reserves</td>
<td>Conditioning</td>
<td>Storage</td>
</tr>
<tr>
<td>Transport</td>
<td>- Control of power consumption</td>
<td>- Anticipated treatment of the product when worn</td>
</tr>
<tr>
<td></td>
<td>- Substitution: temporary packaging to reusable packaging</td>
<td>- Reduction: volume of packaging</td>
</tr>
<tr>
<td></td>
<td>- Reduction: removal</td>
<td>- Reuse over-packaging</td>
</tr>
<tr>
<td></td>
<td>- Recycling, reverse logistic (Schmidt, 2005)</td>
<td>- Anticipated treatment of the product when worn</td>
</tr>
</tbody>
</table>

**Axis C.S.R.**

If the environmental actions are more popularized including in the field of logistics because of its cross-functional and integrative nature (Wu and Dunn, 1995), SCM also contains niches of support associated with the principles of sustainable development within the

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13 A research undertaken in 1995 established already that 42% of the 450 questioned gave a major role to logistics in adopting solutions likely to protect the environment. (Murphy P.R., Poist RF and Braunschweig C.D., Role and relevance of logistics to corporate environmentalism-An empirical Assessment, *International Journal of Physical Distribution &Logistics Management*, 1995, 25 (2) : 5-20).
framework of social responsibility. In addition, to confine oneself to internal actions of progress as regards S.D. and to forget the external dimension (space and time) of the S.C. would be likely to call into question all the authorized efforts (Welford, 2003). Indeed, if at the beginning of the chain, certain suppliers do not consider the external dimension, then the whole of the chain suffers from it (O.R.S.E., 2004). The content of the RSE is not approved unanimously among researchers (Gendron, 2000). According to Wood (1990), societal and organizational implications of this responsibility are sometimes even contradictory.

This assertion is also advanced by Gendron et al. (2003: 4) who ascribe this fact to the confusion between practices, discourses and questioning. These authors also state that studies showed that a lot of big companies taking initiatives outside the law, are motivated by the resulting competitive advantage and voluntarily anticipate the measures soon to be sanctioned by law (Ibid: 5). The actions regarding RSE, contrary to those concerning the environment, are not assessed by a lawful framework. Consequently, companies are free to take broad initiatives (Villeneuve, 2005). From the literature, we selected these few RSE-oriented strategies in terms of SC management14, knowing that as in the case of progressive actions related to the environment, we do not claim that the possible fields of intervention are exhaustive (See Table 2).

<table>
<thead>
<tr>
<th>S.D. Actions</th>
<th>S.C. Activities concerned</th>
<th>Single or Parallel Strategies</th>
<th>Opportunities</th>
<th>Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Societal Responsibility</td>
<td>Whole S.C.</td>
<td>Goods Traceability</td>
<td>- Audits of suppliers, reduction of suppliers (reduction in the costs of mid-term transactions).</td>
<td>Control Costs Opportunism</td>
</tr>
</tbody>
</table>

14 Within our reflexion, it seems pertinent to note that the border between the actions in terms of RSE and the ones on he environment is not delineated. On the contrary, these actions are strongly interwoven (for instance, in terms of goods traceability since several S.C levels are considered including that of suppliers and other sub-contractors). On the other hand, certains authors (Rondinelli and Berry, 1999, Op. Cit.) believe that these actions are more oriented towards SC external management.
<table>
<thead>
<tr>
<th>Social Responsibility</th>
<th>whole S.C.</th>
</tr>
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<tbody>
<tr>
<td>To take into account the ethical dimension within Human Resources</td>
<td>Develop image, reputation, Social Performance (Welford, <em>Ibid.</em>) To favor freedom of expression, personal achievement, the feeling of membership of the group of employees and collaborators (Villeneuve, 2005) To recognize the native cultures, to avoid exclusion</td>
</tr>
<tr>
<td>- Fruitful development of consumer loyalty for business relations. Choice of more reliable and technologically more competitive suppliers (Sjoett-Larsen, 2000). (short-term savings on costs can be lost by additional costs such as quality problems, delivery delays etc.). -Establish close connections with all the structures playing a part in the supply chain &quot;win to win&quot; philosophy (reduction of long term costs). -Dialogue between suppliers and big distribution (towards a reduced power of the big distribution?) -Increase of the quality of the products: Competitive advantage (Welford, 2003)</td>
<td></td>
</tr>
<tr>
<td>Information assymetries</td>
<td></td>
</tr>
<tr>
<td>- Cultural Barriers (languages, traditions, customs and habits etc.) - Problem of the numerous regulations which can be different from one country to another - Control - Costs</td>
<td></td>
</tr>
<tr>
<td>- Inadequacy between the profit targets sought by the company and the common good (the company is not philanthropist and has its own ethics, often different from that of the individuals who compose it) (Brenkert, 1995) - Definition of the perimeter of responsibility: To what extent is the leader company responsible? (ORSE, 2004) - Different social legislations from one country to another</td>
<td></td>
</tr>
</tbody>
</table>

### Transparency

| Whole S.C. | To give the parties concerned (suppliers, contractors, subcontractors, collaborators, employees) transparent information | Favors collaboration and confidence | To take care of one’s image | - Limits related to the insufficiencies of information systems and managing tools | - Political Aspects |

Now that we have stabilized the concepts of our problem and categorized the strategies, the third and last part is devoted to the empirical part which is articulated around a few methodological elements (3.1.) and then around the case study of multinationals (3.2.).

### III. ILLUSTRATION: THE STUDY OF SUSTAINABLE DEVELOPMENT REPORTS OF TWO MULTINATIONAL COMPANIES

In addition to these analytical investigations, we would like to illustrate this problem by using examples of practices implemented by two big multinational companies in varied types of activities: CARREFOUR (Distribution) and LAFUMA GROUP (Sports). We have adopted a methodology based on a lexical analysis of annual reports (2005) on sustainable development published by these companies.\(^ {16} \)

The objective is to establish a connection between academic research and the practices of the companies in order to make an inventory of the recurring problems as regards durable development but also of convergences and the divergences. Then, from these analytical statements and as a conclusive part, we will bring out ways of reflexion and discussion which are endless so vast this problem is.

\(^ {16} \) These reports are available on the websites of these groups.
3.1. Methodology

Our analysis methodology is inspired both by the content analysis (Berelson, 1954) and the textual data analysis based on the frequency of words (and other graphic forms) (Austin, 1972) that can be found in the S.D. annual reports.

On the basis of the strategies indexed in the conceptual part (See II., Tables 1 and 2) we examined the significant words which are redundant in each of them. We thus established a framework of a priori references based on the literature, it being understood that this framework was then enriched (and this is where the relevance of this process resides) with elements gradually discovered through readings and analysis (Desmarais, Moscarola, 2002).

The original framework includes approximately 150 words to which 50 other words were added, coming from the S.D. reports of the studied multinationals. The occurrences of the words contained in the S.D. reports of the three studied companies were transferred to this theoretical framework. The connection between the theoretical and the augmented frameworks then made it possible to proceed to an analysis for each company (3.2.) (in the form of tables). Let us note that this work was enriched by an analytical interpretation of the graphic display of the reports.

3.2. Analysis of the two Cases

3.2.1. CARREFOUR: Group Profile

Carrefour is an international "multi-format"\(^{17}\) distribution group (annual report : 1) operating in 30 countries. It is number 1 in Europe and number 2 in the world. Its 2005 turnover (including all taxes and all stores and branches) was 93.614 billions of euros with 47.5% in France, 39% in Europe (except France), 7% in Asia and 6.5% for North and South Americas.

It counts 12 028 stores (14 513 074 m\(^2\) of commercial surface) and 436.474 collaborators. As

\(^{17}\) This means that the group comprises at the same time hypermarkets, supermarkets, local mini-markets of proximity, Cash and Carry trade and on-line trade (Coshop).
regards S.D., Carrefour has formalized its procedure, which started in 1992, nearly fifteen years ago, with the creation of the "Carrefour Quality Line".

**Analysis of the General Aspects of the Document**

See Appendix A.

**Textual Study**

As a whole, the document leaves the reader with a certain impression of heaviness due to the numerous repetitions. A quick calculation enables us to conclude that approximately 30% of the report is concerned with advertising and illustration (that is to say 20 pages out of 70).

The report is articulated around the different parties and, outside the key indicators, there is no part dedicated to logistics whereas the ellipse "logistic" on the second page could imply that a wide space is devoted to this function above all concerning a distribution group acting of a logistic distributeur (the logistics part should have a leading role in the supply chain since there is no manufacturing - even the products bearing the group label are manufactured by producer-suppliers). Page 3 through 5 propose a general presentation of the group (countries where it can be found, turnover). Among these classic statistics, let us note a column entitled "Energy Consumption in GWh" providing the aforementioned indications by country.

Taking into account the structure of the report articulated around the parties, we targeted the pages concerned with our problem, which corresponds approximately to thirty pages (half of the report).

**Table 3. Lexical Analysis of the Groupe CARREFOUR**

<table>
<thead>
<tr>
<th>Classification</th>
<th>Occurrence</th>
<th>% 18</th>
<th>Analytical Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainable Development</td>
<td>57</td>
<td>29</td>
<td>Not surprising since the report is based on this subject... for the group, SD is part of its &quot;strong values&quot;...</td>
</tr>
</tbody>
</table>

18 Percentage of occurrence of the theme.
<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>24</th>
<th>12</th>
<th>As noted above, the report is deliberately articulated around the stakeholders (customers, collaborators, franchised partners, suppliers, communities and shareholders). This strategy is clearly announced by a framed message from the director of sustainable development (p. 8).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment (Environmental)</td>
<td>23</td>
<td>12</td>
<td>As a distribution group operating in about thirty countries, the &quot;environmental management&quot; dimension is an important pillar of the S.D strategies. Yet this term is quoted more frequently in the &quot;history&quot; part... This strategy established in 2001, is already old according to the group and appears only as next to last in the “2002-2005 Actions Assessment”. Along the S.C., the environment-oriented actions concern: a control of the CO2 emissions (through a reorganization of flows, designing alternative and mutualized transport, backhaul...); an analysis of the cycle of life on certain products; waste recycling (sorting cardboard, plastics and other waste that can be reused)... It is however difficult to evaluate these efforts. Indeed, the majority of the logistic indicators, which are not easily assessable, are quoted by country. The data concerning former years is missing... Often the reported procedures are associated with one given store or country... One then learns that a key indicator from 16 to 20 means &quot;continuous improvement&quot; of the &quot;maturity level&quot; of the “self-assessed logistic procedure” (Hypers: Brazil). Between 11 and 15 (Hypers: Greece), the procedure has been “put into action” (Hypers: France). Between 6 and 10 (Hypers: Spain), it is &quot;being put into action&quot;, and finally between 1 and 5 it is &quot;being tested&quot; (Maxidiscompt: Korea)...</td>
</tr>
<tr>
<td>Responsibility (Responsible citizen?)</td>
<td>21</td>
<td>11</td>
<td>With the S.D. concept, one speaks more and more about responsibility and this high occurrence rate does correspond to the logic of this report. By giving more importance to the &quot;parties&quot;, the concept of &quot;responsability&quot; reinforces the ideology consisting for the private company in taking into account the common interest (Gendron, 2000).</td>
</tr>
<tr>
<td>Dialogue</td>
<td>19</td>
<td>10</td>
<td>This term relates to the RSE axis (cf. Table 2). According to Carrefour, a dialogue has been established with all the parties. Besides it appears among the first declarations of the Chairman of the Supervisory Board... Absolute qualifiers of time (&quot;permanent&quot;), space (&quot;everywhere&quot;, &quot;at all levels&quot;, &quot;with all the countries&quot;) generally accompany it... This dimension is so important that on page 56, an appraisal of the dialogue with the parties (in terms of the number of business units based on 3 levels: &quot;weak, good and very good&quot;) is indicated. Thus, it is said that certain countries have a &quot;very good&quot; level. On the other hand, no graphs are available for the countries classified as &quot;weak&quot;.</td>
</tr>
<tr>
<td>Action (to achieve, to establish, to design, to)</td>
<td>19</td>
<td>10</td>
<td>All these terms have a concrete connotation and this is why we gathered them. Speech or reality?</td>
</tr>
</tbody>
</table>
Among the studied pages, we found a lot of technical terms corresponding to our reference framework and related to SSCM management, which seems to indicate a strong commitment in this particular field (alternative transport, analyses of the product cycle, recycled waste, eco-design, power consumption, greenhouse effect, backhaul, "Food Miles" etc...). Surprising topics can also be found but they always seem to be guided by a spirit of marketing (differentiation through teaching the consumer to adopt a responsible consumption): creation of "AGIR\textsuperscript{19}" products (for S.D.) or a civic consciousness with "responsible lobbying" “to enable Europe to compete with the other regions of the world" – Report :13)... A strong marketing spirit guided the drafting of this sustainability report for a distribution group which,

\textsuperscript{19} In English : to Act.
taking into account the important pressures on the company, chose to see S.D. as opportunities to be integrated in their corporate strategy throughout the SC management.

According to the report analysis, almost all SSCM-oriented actions theoretically listed are put into practise. However, bearing in mind the big influence and the various activities of the group, it is extremely difficult to measure these efforts. No frank statement can be given. The complexity and the vague character of the topic open wide areas of freedom to multinationals where they can freely use all the possibilities offered by information and communication technology to treat it as skilfully as possible. Moreover, they have the political, human and financial resources to implement it. In other words, it is difficult to tell the discourse from reality...

3.2.2. LAFUMA : GROUP PROFILE

*Lafuma group* is a major actor on the outdoor market and is organized around four key brands: *Lafuma*, leading brand, *Oxbow*, the brand for the Board Sports Division, *Millet*, the brand for the technical mountain division and finally *Chameau*, the brand for Country Division. There are four main product ranges: textile, camping furniture, footwear and mountain hiking equipment. The group is the European leader with estimate sales of 250 millions euros. In 2005, its business around the world was as follows:

France, 59.1%, Europe (excluding France), 26.5%, North America, 3.7% and Others (including Asia), 10.7%. Lafuma Group had been definitely dedicated to a sustainable Development approach for two years, but started this strategy as soon as 1992.

*Content Analysis*

*General Aspect of the document*

See Appendix B.
Textual Study

For a start, let us note that logistics occupies only two thirds of a page (that is to say more than 300 words)... It is not a lot but we worked on the supply chain and consequently integrated the totality of the trade activities which make it up (cf: conceptual definition in § 1.1.). We thus treated approximately 60 % of the report, which is roughly equivalent to twelve pages. Concerning the lexical analysis, we studied the occurrences which are shown below in the form of table (Table 4).

Table 4. LAFUMA GROUP Textual Study

<table>
<thead>
<tr>
<th>Classification</th>
<th>Occurrence</th>
<th>%</th>
<th>Analytical Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sustainable</td>
<td>31</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>development</td>
<td></td>
<td></td>
<td>For a producing company with an SD approach, it appears logical that this dimension, which was focused on the products at the beginning of the 90s, crossed the borders of the company to take into account the environmental aspects throughout the life cycle of the product until its end. Companies are interested in this process because it stimulates innovation, causes differentiation and a reduction in costs (cf: Table 1). The group takes advantage of this situation to promote some of its products by associating the customer to the SD effort (photographs of the objects with detailed description: ex. KENEMA shoe: &quot;This LAFUMA WWF boot also allows hikers to align their purchasing choices with their respect for the natural environment where lies their leisure activities&quot;). A definition of eco-design is given page 20. There one also learns that the number of eco-designed products doubled in four years, from 4.45 % in 2002 to 8.15 % in 2005</td>
</tr>
<tr>
<td>Eco design</td>
<td>22</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>(Eco designed)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commitment</td>
<td>20</td>
<td>10</td>
<td>According to the dictionary, this term means a promise to accomplish an action and consequently, it contains a notion of uncertainty, of condition... Inversely, in the report, the terms &quot;study&quot;, &quot;action&quot; which imply a notion of &quot;accomplished&quot; or &quot;being accomplished&quot;, in short more concrete facts, already committed, barely appear (once or twice). One can then wonder about the variation which exists between the good intentions and the actions really started. Besides the objective of the group is to markedly increase the share of eco-designed products within the total turnover (public awareness campaigns have thus been attempted with consumers, employees, partners...)</td>
</tr>
<tr>
<td>(committed, to commit)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
We would say that it is logical that the occurrence rate of this term be high. Indeed, the term is often linked to that of "eco-designed" and, as seen before, the eco-design of the products is in the air of time as regards S.D... Furthermore, as noted before, the report contains a product-oriented marketing procedure; hence the high occurrence rate.

In fact the companies choose the strategies for their SD program. The "environmental" axis is already more popular (and also older ...) in the industry than that of eco-design. Thus, LAFUMA Group certainly continues its efforts in the field but makes more efforts as regards eco-design, a more fashionable concept which is more beneficial in terms of competition (cf: Supra). As written in the report (: 23): "The company does not wish to teach the others..." (nor does it want to be told what to do, we would say...) This may be an explanation to the fact if the term "environment" has an occurrence rate which remains high, that "of eco-design" is higher. However, in matters of logistics, the sources of environment-oriented SD are far from being satisfied perhaps because the regulations for the big polluters is insufficiently applied and not very restricting 21 ... Thus, we learn in the part devoted to logistics that 10 % only of continental transport will be carried out in a “clean” way (river, rail) in 2007, which is not a lot...

One of the parties most frequently cited. This term refers to conceptual dimensions analyzed in the first part of this work that are dependent on SC and S.S.C management: co-operation, internal but also inter-organisational collaboration, transversality etc...

It should be noted that this term has a far higher occurrence than: customers (3), suppliers (2), subcontractors (4), employees (3), shareholders (1), NGO (1). As to “communities”, They are not mentioned.

This term frequently accompanies the terms "committment" or "to committ". According to us, it has the same connotations: an improvement is not a concrete action; thus, for instance, when a teacher says of a pupil that he must improve, it is only a wish which will or will not come true.

Furthermore, we were surprised that terms quite specific to SD actions only appear very sparingly: energy, energetics (4), recycling (3), reduction, to reduce (3), responsibility (3), waste (2), greenhouse effect (2), to salvage (3), wasting (2), repackaging (2), flows (2) non-renewable resources (1), cycle of life (1), principle of precaution (1)... to quote only the main

21 Thus, an OCDE note (2001) reveals that the tax on the emissions of pollutants coming in particular from big polluters, which the industrialists are, is very limited when it could be an effective measure. The industrialists often take advantage of full or partial exemptions (due to the concern of preserving competitiveness among companies which are also employers ...).
ones. Other terms do not appear (especially the term "supply chain" including in the English version!) : dematerialization, pollution, reusable packaging, temporary packaging, bio-fuels, chemical content, risk, warming up, renewal... Concerning supply chain, it seems surprising that we did not find terms related to time and space. On the other hand, the famous quotation "offer more and better with less" (or "offering more with less") appears on several occasions, indicating a definite marketing spirit in the drafting of this report.

The efforts as regards logistics are not very ambitious (Cf. Table 3) whereas Logistics can be particularly environmentally damaging (Welford, 2003). The physical activities of transport and storage are especially concerned because they use fossil fuels. In fact, the harmful effects due to transport influence two pillars of sustainable development: environment while taking part in the increase of the greenhouse effect in the atmosphere and the societal aspect since pollution due to vehicles is responsible for human pathologies. Moreover, the consequences of these harmful effects can be short-term or long term, direct or indirect, local or global and above all predictable or unknown (Bringezu, 2002). As regards packaging, equipment maintenance, SC optimization, very little to no procedure or objective is specified.

Finally, at first glance, the astutely presented report, filled with quite strong “marketing”, leaves the reader (consumer) with a harmonious impression as to the company’s participation to S.D. However, a thorough textual analysis reveals that few concrete actions are finally really carried out (whereas as we saw, Tables 1 and 2, the opportunities for a reduction of environmental attacks, throughout the S.C., are numerous). Indeed, as the occurrence rates show, strategies in favour of S.D. are generally presented as "commitments" or "axes of improvement" and not as firmly finalized actions. If it is established that the group is sensitized to the SD process, the analysis of the report does not show any implementation of a real major process of change (choice of investments, resource exploitation, structural changes... etc). The strategies related to the eco-design of products are particularly put
forward (as far as production and commercial targets are concerned) but is it so because of strategy of differentiation or because of a SD-oriented strategy? Both at the same time? It is very difficult to answer…

**CONCLUSIVE DISCUSSION**

Is SSCM an opportunity for the company? Would this type of management be precursory with regards to SD?

The theoretical and empirical line of thought followed for this research allows us to answer positively. Even if other analyses of annual SD reports would deserve our attention (here we consequently underline an important methodological limit of our work), we think that in terms of organization, the adoption of this type of management is a lever for sustainable development but not solely… What emerges from our analysis is that the two companies studied were able to seize the opportunities (or a part of them..) offered by this type of management which, being coercive in the beginning, becomes advantageous (not thanks to the "invisible hand" but certainly thanks to the ingenuity of the managers). The image of the multinational company (1), a competitive advantage based on differentiation (2) and the creative effects related to change (3) are the three factors tangibly revealed by this work.

(1) First of all, the image of the company, embellished by taking SD into account, benefits to all the parties. Indeed, in the obvious interest of their stakeholders to whom they are indebted (in terms of the resources they bring or the products they buy), the multinationals, known like stars by the general public, are better off persuading society that they work for the safeguard of the planet. In this respect, SSCM represents a lot of opportunities as we indicated as well in both the conceptual as empirical parts (green logistics, eco-design, reverse logistic... etc). Consequently, we do not share the opinion that management as regards responsibility is the

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22 Here we can take the examples of Mattel or Nike whose public image suffered following doubtful social practices by some of their suppliers
"exclusive prerogative of the marketing and communication departments" (ORSE, Federe, 2004). On the contrary, we believe that in a group such as Carrefour for example, this approach is well integrated to the definition of the general strategy of the group and depends on the competence of the general management. Thus it would be interesting to reconsider the conditions under which the management of sustainable supply chain, gives logistics in particular but also production and purchasing new letters patent of nobility and a whole place in the strategic orientations.

2) In the same way, whereas research had confirmed the sources of competitive advantage of supply chain management, both through cost domination strategies or differanciation strategies (Porter, 1982, ibid), the same procedures would deserve to be considered for S.S.C.M. Our case study revealed that the two multinationals had benefited from environmental constraints to build a marketing strategy based on differentiation. Consequently, the interface between SC management as regards distribution and consumer behavior is again revisited. Indeed, up to now, the final consumer was neglected in the reorganization of flows or else it was often regarded as extremely volatile (Paché, 2000). With the S.S.C.M orientation, companies will have to take into account the behavior of a consumer/customer who is increasingly attentive to his consumption and thus to the civic attitude of companies.

3) By raising the question of integrating the principles of SD to its management modes, the company is inevitably in a process of change which, as we saw it, stimulates its creative innovation processes. In addition, this calling into question is welcome to get rid of old habits and other routines that do generate not only new organizational ideas, but also a certain organizational weariness which does not favor the stimulation of resources, in particular human ones.

23 "Sustainable development and company strategy": 1.
Several questions still remain to be tackled... We will not be able to approach them all. For instance, among so many others, how big are the engaged efforts and the required improvements and how can we measure them to a general level?

In the two multinationals, S.S.C. is certainly on the move but at a level which appears to be far from reaching saturation point. As a matter of fact, theoretically, this type of management can be seen as a full factor of reorganization of the companies and their networks. But are all theoretical logics applicable? Thus our reasoning brings us to the *in se* contradiction of the very concept of S.D.: Isn’t development (economic) more related to "growth", "increase" than to their antonyms?

Finally, we would like to mention a few limits which seem to us quite as numerous as the questions. Largely detailed in part II, the multi-nationality of the chains makes the subject even more complex: a lack of measuring instruments and in particular with regards to performance measurement\(^{24}\), an increasing difficulty to implement control and information systems, the thinning of responsibilities due in particular to the multitude of actors and levels of a S.C. (with risks of interface contradiction and disturbances), the development of opportunist behaviors (in particular in outsourcing relations), differences between speeches and the reality: how important is all the fine talk? And what pertinent part do the real committed efforts in favor of S.D and thus of our world represent? A vast field of research is open to our academic world...

\(^{24}\) Even if attempts have been made to develop and especially to make this type of measurement reliable (See for EX. Potter, A., Mason, R. and Lalwani C., 2002, *Measurement Performance in the Supply Chain for Sustainable Distribution*. Logistics Research Network 2002 Conference Proceedings, Birmingham.)
Appendix A. Carrefour

The report 2005 devoted to sustainable development is a document of 70 pages, A4 format, downloadable in English and French on the Internet. The title page, quite full, includes the words "Sustainability Report 2005", the logo and the name of the group and seven photographs (appearing inside the report) representing stalls of fresh products (3), a farmer busy with his cows (1), a collaborator on the payroll in Columbia, a scene with an NGO (Italy), a scene in Thailand with a local community. The second page is divided into two parts. The upper part suggests the "Triple bottom line" process with the following triple indication: "A general approach combining: economic progress, environmental progress, social progress", each one is connected to the words “Sustainable Development” together with a chain link comprising three rings. The lower part includes the drawing of a hypermarket above which appears the following sentence: “Mastering the responsibility chain” and arrows referring to ellipses where certain parties appear "Suppliers", "Customers", "Collaborators” and then the words: "Logistics" and "Store".

Occupying each a whole page, the two following pages deal with the "Message from the Chairmen" (of the Supervisory Board and of the Management Board) with their signatures at the bottom of the page and a rather consistent portrait of each of them. The whole report is abundantly illustrated with photographs of collaborators, stores, shelves, products, posters, logos, geographical maps, graphs, framed interviews of the different senior executives (Group Manager of Sustainable Development, Quality, Responsibility and Risks Manager, etc...). The tables of content (with a wide graphic format) are well spaced out, the colors used are generally pastel, some however with a more intense colouring. The document leaves the reader with a certain impression of heaviness or of intentional filling due to many repetitions. A rapid calculation of the areas enables us to conclude that approximately 40% of the report are concerned with advertising and illustrations (more or less thirty pages...).

Appendix B. Lafuma Group

The Sustainable Development Report appears under the form of an A4 document of forty pages (for both the French and English versions). The title page, with very refined graphics, shows in the forefront a photograph of a heap of stones. One distinguishes in the background, mountain ridges that seem partly covered with snow. Only the letters "LAFUMA GROUP" bordered with a leaf, the year "2005" and the title "Sustainable Development Report “ (in French and English) appear. The second page is devoted to a "Word from the President" (also in both languages), signed "Philippe JOFFARD-LAFUMA" at the bottom of the page, and accompanied by one small portrait. This very short "Word from the President" (five lines) is written in a very simple style. It primarily consists of thanks to the anonymous Netsurfer who "is interested in and shares these values" with the group. As a whole, the texts and illustrations are very well balanced, without heaviness nor overload. The colors of the different graphics are soft, pastel in general. The leaf as the group logo, appears at the top and on the right of every other page only.
REFERENCES


*Websites* : Carrefour, Lafuma Group, Mattel Toys.