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Keyword: Supply Chain Management; Supply Chain Management Green; Sustainability; Global Compact.

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Abstract

The purpose of this paper is to identify and anlyze the practices found in the supply chain in order to verify how the sustainable supply chains follow the guidelines proposed by the UN Global Compact. Using a systematic review of the literature, based on the Elsevier-Scopus database and a time-cut from 2013 to 2018, sustainable supply chain practices were analyzed under the UN Global Compact perspective. With the aim of analyzing researches from national and international publications, the following keywords were used: sustainable supply chain management (SSCM) and green supply chain management (GSCM). National and international papers were considered for this study within the period from 2013 to 2018. This time cut was essential because of the need to focus attention on recent and current publications. The practices were stratified according to the four pillars that underpin the ten principles of the UN Global Compact. We can observe significant results with respect to the Environment (72%), followed by Labor (15%), Human Rights (9%) and Anti-Corruption (3%) and their corresponding quantities.

Keywords: Supply Chain Management; Supply Chain Management Green; Sustainability; Global Compact.

1. Introduction

Environmental problems have reached a global scale. Industrial impacts on the environment have become alarming, and consequently issues such as global warming, problems arising from pollution and environmental degradation have come to be discussed internationally. The understanding that natural resources are finite and that environmental capacity has reached its limits are leading organizations to seek balanced growth that does not sacrifice the environment (Alkhidir; Zailani, 2009).

Within this context, a transformation of scale begins in the perception of the environmental problems that have come to be considered alarming worldwide. Companies began to be constantly pressured by regulators, communities, NGOs and their own employees, demanding efficient actions regarding the environmental impacts of their actions (Paulraj et al., 2017).

Such a move occurs in a scenario in which companies no longer operate individually and independently, but rather in chains (Christopher, 2007). Supply chains can be considered one of the ways to generate positive repercussions worldwide, with approximately 80% of global trade flowing through supply chains. They are perceived as the driving force of the economy, providing products and services

around the world, connecting organizations and people operating beyond geographical and cultural boundaries (UN GLOBAL COMPACT SUPPLY CHAIN SUSTAINABILITY, 2015).

Within this context, the United Nations has developed a guide known as the Global Compact aimed at implementing sustainable practices in the supply chain. Thus, this research is based on the following question: do the sustainable practices adopted in supply chains found in the literature in the last five years follow the sustainability guidelines indicated in the UN Global Compact?

2. Overview of business supply chain management and sutainability in supply chain

Management

2.1. Supply Chain Management

In recent years, there has been a significant transformation in the contemporary organizational segment, since individual companies have ceased to compete autonomously and have started to compete in chains (Lambert; Cooper, 2000). Due to the complexity on this subject, it is fundamental to understand the main aspects regarding this subject.

There are divergences within the academic milieu of when the term Supply Chain Management has been introduced in the literature and in the business world. Lambert and Cooper (2000) acknowledge that the term Supply Chain Management emerged in the 1980s. Mentzer et al. (2001) state that since the 1990s, specifically in 1995, at the Conference of the Concil of Logistics Management, the term was given a significant prominence by corporations. From then on, the concept was globally widespread and became part of the business environment.

There are several concepts about Supply Chain Management. One of the most well-known definitions is that of Ballou (2006). According to the author, the Supply Chain Management comprises from the process of issuing a purchase order until the delivery of that request to the end user. Ballou (2006) states that Supply Chain Management encompasses everything that is related to the operations related to the transportation and manufacturing of products, from the moment of obtaining inputs to the final consumer.

According to Levi and Kaminsky (2003), Supply Chain Management can be defined as an efficient integration between suppliers, producers and warehouses. According to the authors, this efficiency always aims at reducing costs, but without impacting the level of service stipulated. Lambert and Cooper (2000) explain that Supply Chain Management does not concern a network of business-to-business business activities, but rather a complex business network that can provide greater synergy within, outside, and between companies. This way of conducting business ensures greater excellence in the management of organizational transactions and configures a new way of coordinating business and, especially, a new way of interacting with other members of the chain.

The Council of Supply Chain Management Professionals (2017) recognizes Supply Chain Management as supply and demand management within and between organizations. In this way, planning and management of all the activities involved in procurement, production, supply and transportation is essential. It is also important to coordinate and collaborate between suppliers, service providers and

customers, forming a connection between all members of the chain.

In Supply Chain Management, all participants are directly interconnected and are key to the success of the business. A high level of performance requires that all operations along the chain operate in a balanced and transparent way (Oliveira et al., 2016).

2.2. Sustainability in Supply Chain Management

Over the past two centuries, rapid industrial expansion has brought prosperity never seen before. However, all this productive development showed signs of being unsustainable, as it led to negative environmental impacts, such as industrial accidents that surprised the world: one of the biggest oil spills in 1978 (France); largest chemical plant accident known as the Bhopal tragedy in 1984 (India); Chernobyl nuclear disaster in 1986 (Ukraine) among others (Rajeev et al., 2017; Paulraj et al., 2017).

Another central aspect that is being discussed internationally is the limit of the natural resources of the planet. Some researchers assert that environmental capacity, including ores, fossil fuels, agricultural productivity and the possibility of regeneration of the natural environment is being exceeded. This is due to the fact of irrational consumption, together with the irresponsible environmental pollution that results from the product life cycle from the extraction of inputs, production and disposal of industrial waste (Al Khidir; Zailani, 2009).

All of these factors contributed to the need for sustainable growth, since a "green" economy would be able to provide prosperity backed by a use of natural resources in a conscious way. Thus, supply chains began to reassess their actions, since their activities are fully integrated and represent a significant part of the environmental impacts of companies. (Paulraj et al., 2017).

In terms of sustainability in the supply chain, two concepts appear in the literature: Sustainable Supply Chain Management (SSCM) and Green Supply Chain Management (GSCM). Thus, for a better understanding of the terms used, Tables 1 and 2 show some of the main definitions found in recent years.

Table 1. Main definitions found GSCM

| Source | Definitions Found GSCM - Green Supply Chain Management | Author |
|--------------------------|---|------------------|
| | Green supply chain management comprises the environmental factor | |
| International Journal of | in the chain and encompasses product design, supplier selection, | SRIVASTAVA, S.K. |
| Management Reviews | production, final product delivery, and end-of-life management of the | (2007) |
| | product after its life. | |
| Global Journal of | Green supply chain management is linked to the assessment of the | ALKHIDIR, T.; |
| | total environmental effects of the product throughout its entire life | ZAILANI, S. |
| Environmental Research | cycle of products and services. | (2009) |
| I | | GENG, R.; |
| International Journal of | Green supply chain management has aspects of sustainability not only | MANSOURI, S. A.; |
| Production Economics | within organizations, but throughout the supply chain. | AKTAS, E (2017) |

Table 2. Main definitions found SSCM

| | Table 2. Main definitions found SSCM | |
|---|--|--|
| Source | Found Definitions SSCM -Sustainable Supply Chain Management | Author |
| International Journal of Physical Distribution Logistics Management | Sustainable supply chain management needs to take into account the environmental, economic and social dimensions in the adoption of its practices for the purpose of improving long-term economic performance. | CARTER, C.R.; ROGERS, D.S. (2008) |
| Journal of Cleaner Production | The authors state that in sustainable supply chains environmental criteria must be met by the members who remain within the chain. | SEURING, S.; MÜLLER, M. (2008) |
| Supply Chain Management: An International Journal | Sustainable supply chain aims to search for sustainability through the purchasing and supply process, adopting social, economic and environmental processes. | WALKER, H.; JONES, N. (2012) |
| The International Journal of Advanced Manufacturing Technology | Sustainable supply chain addresses the economic, environmental and social dimensions. | AL ZAABI, S.; AL DHAHERI, N.; DIABAT, A. (2013) |
| Journal of Business Ethics | Sustainable Supply Chain can be considered as the incorporation of the social, environmental and economic objectives of an organization with the objective of improving the long-term economic, social and environmental performance of the individual organization and its supply chains. | WOLF, J. (2014) |
| Supply Chain Sustainability: a practical Guide for Continuous improvement | The sustainability of the supply chain is the management of environmental, social and economic impacts and the foci of good governance practices throughout the life cycles of goods and services. | UN (2015) |
| European Journal of Operational Research | The sustainable supply chain can be defined as complex network systems that involve several entities that manage products from suppliers to customers, considering the social, environmental and economic impacts. | BARBOSA-PÓVOA, A. P.; SILVA, C.; CARVALHO, A. (2017) |
| Journal of Business Ethics | Sustainable supply chain management encompasses a company's internal practices and external practices to make its supply chain more sustainable in terms of the three economic, social and environmental dimensions. | PAULRAJ, A.; CHEN, I. J.; BLOME, Co (2017) |

It is thus realized that the current context requires that there be an understanding of the economic greatness related to sustainable practices so that they propagate rapidly in society. The change in patterns

of production and consumption can no longer be postponed or downgraded. The impoverishment of the planet is a reality that can change if there is a possibility of guaranteeing resources for the maintenance of future generations. The trajectory is difficult, since it requires a transformation in the form of the companies to operate (Betiol et al., 2012).

3. Sustainability and the UN and the Global Compact

3.1. Sustainability and the UN

The late 1960s were deeply marked by a wide range of environmental research. These recent findings argued that if emerging countries reached production levels in developed countries, there would be an environmental catastrophe resulting in the end of the planet's resources (Almeida, 2002). In this way, the need arose to carry out an in - depth study on the availability of natural resources in relation to the current economic model.

To that end, the Club of Rome was formed by a team from the Massachusetts Institute of Technology and responsible for producing a report known worldwide as "The Limits of Growth." This report, based on mathematical models, asserted that the planet could not withstand the same levels of population growth, exploitation of natural resources, industrialization and food production (Almeida, 2002; Betiol et al. 2012).

Many assumptions pointed out by the report were not confirmed, but the main idea about the limits of natural resources remained valid and supported a new understanding between the relation man and nature (Betiol et al., 2012). This fact can be observed to the extent that in 1972 the United Nations, which until then was not involved in environmental issues, decided to hold the First World Conference on Man and the Environment in Stockholm (Boff, 2015, Betiol et al. 2012). This conference was a milestone in history, since the theme had been discussed only in the academic context and began to receive the attention of nations around the world (Almeida, 2002).

In the 1980s, however, there was frustration with regard to the Conference. This is because the industrialized countries, which accounted for only 20% of the world's population, were responsible for consuming eight out of every ten tons for all foods. In addition, only seven countries released half of all polluting gases into the atmosphere, and the twenty richest nations had sixty times the income of poorer countries (Betiol et al., 2012). In addition to these factors, there was still the question of how to strike a balance between the current economic model and the need to preserve the environment (Almeida, 2002).

Thus, in 1983 the UN Secretary-General invited Dr. Gro Harlem Brundtland to chair the World Commission on Environment and Development. In April 1987, this commission released a report known as "Our Common Future" that presented the concept of sustainable development for the first time (UN BRAZIL, 2018). This concept has been defined as "one that meets the needs of the present generation without compromising the ability of future generations to meet their needs and aspirations" (Boff, 2015, 34).

Due to the complexity of the recommendations proposed by the Commission, the United Nations Conference on Environment and Development was convened in 1992 and became known as the "Earth Summit". This conference developed a number of documents, including Agenda 21, which emphasizes the

importance of participation by governments not only in relation to environmental issues, but also in relation to poverty, unsustainable patterns of production and consumption, and the disposition of the international economy, among others. This action plan called for several groups to achieve sustainable development, including the business segment (UN BRAZIL, 2018).

These activities did not develop as expected and in 1997 another meeting was held known as the "Earth Summit + 5", whose final document reinforces the importance of reducing greenhouse gas emissions, increasing the distribution of sustainable energy, among other issues. All these actions needed to be centralized on the issue of poverty eradication, whose topic becomes a unique condition for sustainable development (UN BRAZIL, 2018).

In 2000, 191 countries gathered at an event known as the Millennium Summit. The purpose of this assembly was to propose to States Parties a greater commitment to peace, human rights, environmental sustainability and the eradication of poverty. From this meeting, a document known as "Millennium Development Goals" was drawn up, consisting of a future-oriented agenda. Until now, a set of global goals had been proposed at all levels (international, national, regional and local). All goals were centralized in a single document composed of indicators to be monitored (Okado; Quinelli, 2016).

In the same year, in an attempt to move closer to the private sector, UN Secretary-General Kofi Annan presented a challenge to the international business community by launching the Global Compact, which will be detailed in the following section.

3.2. Global Compact

Officially launched on 26 July 2000 at the UN office in New York, the Global Compact was designed to help organizations around the world include in their business scope the ten universal principles that have their roots in the Declaration Universal Declaration of Human Rights, the International Labor Organization Declaration on Fundamental Principles and Rights at Work, the Rio Declaration on Environment and Development and the United Nations Convention against Corruption, as can be seen in Table 3 (UN GLOBAL COMPACT, 2018).

It is important to reinforce that the Global Compact is not a regulatory device or a code of compulsory practices to monitor private policies and actions. In fact, it is a voluntary initiative whose purpose is to provide references capable of enabling sustainable growth through committed and transformative organizational leadership (UN GLOBAL COMPACT, 2018).

Table 3. Ten Principles on Human Rights, Labor, Environment and Anti-Corruption

| Human rights | Principle 1 | Businesses should support and respect the protection of internationally proclaimed human |
|--------------|-------------|--|
| | Principle 2 | Make sure they are not complicit in human rights abuses |
| Labor | Principle 3 | As empresas devem manter a liberdade de associação e o reconhecimento efetivo do direito à negociação coletiva |

| | Principle 4 | The elimination of all forms of forced and compulsory labor |
|-----------------|--------------|--|
| | Principle 5 | The effective abolition of child labor |
| | Principle 6 | The elimination of discrimination in respect of employment and occupation |
| | Principle 7 | Businesses should support a precautionary approach to environmental challenges |
| Environment | Principle 8 | Undertake initiatives to promote greater environmental responsibility |
| | Principle 9 | Encourage the development and diffusion of green technologies |
| Anti-corruption | Principle 10 | Companies must work against corruption in all its forms, including extortion and bribery |

Source: Prepared from UN Global Compact Supply Chain Sustainability (2015).

4. Research methodology

The approach used for this research has a descriptive and qualitative nature. According to Gil (2011), the descriptive research has as basic purpose to verify which are the main peculiarities of a specific population. In addition, the author states that descriptive research is associated with those whose purpose is to uncover the possibility of possible relationships between variables. In descriptive research, events are studied, interpreted and categorized without the intervention of the researcher (Prodanov; Freitas, 2013).

The systematic review of the literature was chosen as the procedure of this research. According to Tranfield, Denyer and Smart (2003), the systematic review is a tool used to obtain the best evidence and to verify which policies and practices are most used in a given area. It is a specific methodology that not only identifies existing studies but also analyzes and synthesizes the data obtained, thus allowing the collection of evidence of a specific study object (Denyer; Tranfield, 2009).

Denyer and Tranfield (2009) suggest that evidence should be found by defining the basis and keywords. The database defined was the Elsevier platform - SOCPUS. This database was chosen as one of the largest databases of abstracts and citations in the literature, covering important researchers from the national and international scientific community, focused on academic production. In addition, this scientific basis provides advanced search tools that allow a reliable, efficient tracking, analysis and synthesis of data. The following keywords were used: sustainable supply chain management and green supply chain management.

4.1. Methodology of data analysis

The search process provided a total of 366 articles published concerning the keyword Green Supply Chain Management and a total of 151 articles published concerning the keyword Sustainable Supply Chain Management.

Figure 1 shows the evolution of the number of articles publications in the period 2013-2018. It is possible to notice that there has been a significant evolution in the number of publications of articles in the last five years, representing an increase of 76%. This fact shows a greater interest in the academic environment about the sustainable and green supply chain management.

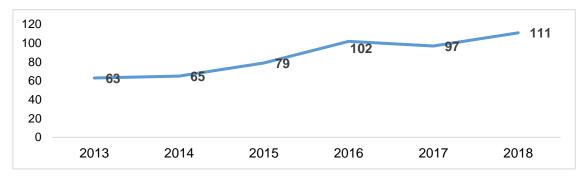


Figure 1. Total number of articles published (2013-2018)

Figure 2 shows a comparison between the two selected keywords (SSCM and GSCM) and total publications, also stratified per year.



Figure 2. Total number of articles published (2013-2018)

Table 4 shows the articles with the greatest impact of publication.

Table 4. Ten journals with the largest number of published articles 2013-2018

| | Qty of Published Papers |
|---|-------------------------|
| Journal | SCOPUS |
| Journal of Cleaner Production | 83 |
| International Journal of Production Economics | 19 |
| International Journal of Production Research | 16 |

| Total | 195 |
|---|-----|
| Transportation Research Part E: Logistics and Transportation Review | 8 |
| Production Planning and Control | 9 |
| Business Strategy and the Environment | 9 |
| Sustainability | 10 |
| Journal of Supply Chain Management | 11 |
| International Journal of Logistics Systems and Management | 14 |
| Resources, Conservation and Recycling | 16 |

Table 5 shows the ten journals with the highest number of citations

Table 5. Ten journals with the highest number of citations 2013-2018

| Journal Nu | umber of citations | %Quoted Journals SCOPUS |
|--|--------------------|----------------------------|
| Journal of Cleaner Production | 3552 | 33 |
| International Journal of Production Economics | 1233 | 11 |
| Resources, Conservation and Recycling | 605 | 6 |
| Journal of Supply Chain Management | 497 | 5 |
| International Journal of Production Research | 483 | 5 |
| Supply Chain Management | 238 | 2 |
| International Journal of Advanced Manufacturing Technology | 222 | 2 |
| Transportation Research Part E: Logistics and Transportation | Review 215 | 2 |
| European Journal of Operational Research | 214 | 2 |
| Expert Systems with Applications | 208 | 2 |
| Total | 7467 | 70 |

5. Analysis of results

After the systematic review of the literature, a total of sixty-eight articles were analyzed in detail, as shown in Figure 3. In addition, Table 6 shows the number of articles selected per periodical and their representativeness can be observed in Figure 4.

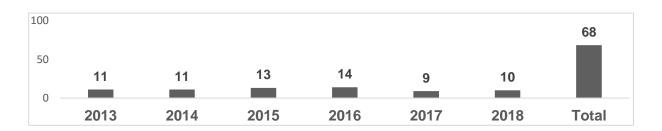


Figure 3. Number of articles selected for search

Table 6. Quantity and Percentage of Articles by Periodicals

| Journal | Selected Articles | Selected Articles | |
|---|-------------------|-------------------|--|
| | (Quantity) | (%) | |
| Journal of Cleaner Production | 31 | 46 | |
| International Journal of Production Economics | 9 | 13 | |
| Production Planning and Control | 5 | 7 | |
| Resources, Conservation and Recycling | 3 | 4 | |
| European Journal of Operational Research | 3 | 4 | |
| Supply Chain Management | 2 | 3 | |
| International Journal of Advanced Manufacturing | 2 | 3 | |
| Technology | | | |
| Sustainability | 2 | 3 | |
| Journal of Environmental Management | 2 | 3 | |
| International Journal of Production Research | 2 | 3 | |
| British Accounting Review | 1 | 1 | |
| Industrial Management and Data Systems | 1 | 1 | |
| Journal of Supply Chain Management | 1 | 1 | |
| Expert Systems with Applications | 1 | 1 | |
| Ecological Indicators | 1 | 1 | |
| Cuadernos de Administración | 1 | 1 | |
| Clean Technologies and Environmental Policy | 1 | 1 | |
| Total | 68 | 100 | |

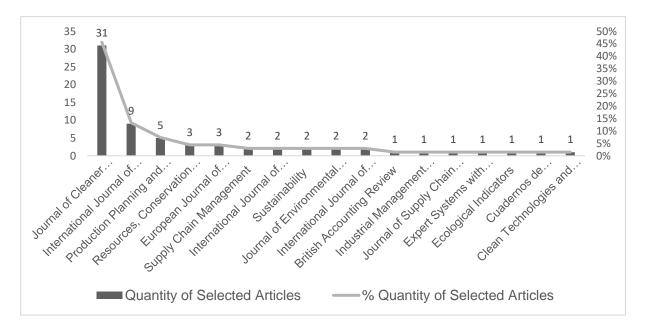
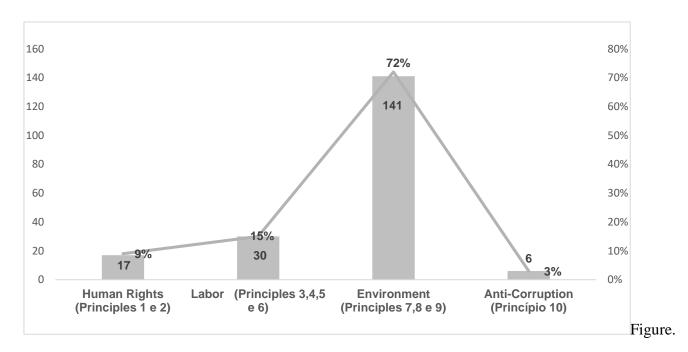


Figure 4. Quantitative Analysis Periodicals

5.1 Analysis of identified practices stratified under the pillars: Human Rights, Labor, Environment and Anti-Corruption

The practices were stratified according to the four pillars that underpin the ten principles of the UN Global Compact. In Figure 5, we can observe significant results with respect to the Environment (72%), followed by Labor (15%), Human Rights (9%) and Anti-Corruption (3%) and their corresponding quantities.



Quantitative Analysis from the Identified Practices

Human Rights (Principles 1 and 2)

From the systematic literature review, 17 practices were identified regarding the Human Rights pillar, which represents only 9% of the total result of this research. In Table 9, the identified practices are observed in Table 7.

Table 7. Human Rights Identified Practices

| Practices Found | Quantity |
|--|----------|
| Collaboration between customers and suppliers | 3 |
| Management in order to minimize the handling of hazardous materials | 1 |
| Adherence to international initiatives (Global Compact) | 1 |
| Local community development | 1 |
| Contracts in which suppliers and customers agree to the ethical code | 1 |
| Social responsability | 1 |

| 1 1 |
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| 1 |
| 1 |
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| |

Labor (Principles 3,4,5 and 6)

From the systematic literature review, 30 practices were identified in the Work pillar, representing 15% of the total result of this research. Table 8 below shows the practices identified in this segment.

Table 8. Labor Identified Practices

| Practices Found | Quantity |
|--|----------|
| Collaboration between customers and suppliers | 3 |
| Develop suppliers | 2 |
| Partner Development | 1 |
| Long term relationship | 1 |
| Environmental awareness as culture of the organization | 1 |
| Corporate Sustainability | 1 |
| Strategic planning for environmental management | 1 |
| Sustainability certificates recognized by customers and secondary stakeholders | 1 |
| Improve Supplier Performance | 1 |
| Reputation improvement | 1 |
| Companies should also develop an organizational culture that encourages, for example team collaboration and proactive behavior to find innovative sustainability solutions | 1 |
| Sustainability Reports | 1 |
| Adherence to international initiatives (Global Compact) | 1 |
| Training and education | 1 |
| Safe Work Initiatives | 1 |
| Contracts in which suppliers and customers agree to the ethical code | 1 |
| Green Training | 1 |
| Employee Reward | 1 |

| Total | 30 |
|--|----|
| Social Inclusive Practices for the Community | 1 |
| Social Inclusive Practices for Employees | 1 |
| Environmental and economic performance | 1 |
| Training, education and influence in the community | 1 |
| Social Commitment | 1 |
| Health and safety at Work | 1 |
| Health and Safety Management System | 1 |
| Work conditions | 1 |
| environmental and economic benefits of SSCM | 1 |
| Selection of suppliers that plays an important role in achieving the social, | 1 |

Environment (Principles 7, 8 and 9)

In all, 142 practices related to the Environment were identified. Some were evidenced in more than one article and, all in all, represent 72% of the result. In Table 9, all the practices that were segmented as Environment are observed.

Table 9. Environment Identified Practices

| Practices Found | Quantity |
|---|----------|
| Green shopping | 11 |
| Selecting green suppliers | 9 |
| Life cycle assessment | 8 |
| Reducing carbon emissions | 8 |
| Eco design | 7 |
| International Organization for Standardization 14001 | 7 |
| Cleaner production | 6 |
| Power reduction | 5 |
| Reverse logistic | 4 |
| Collaboration between customers and suppliers | 3 |
| Green Innovation | 3 |
| Recycling | 3 |
| Product recovery | 3 |
| Waste management | 2 |
| Internal environmental management | 2 |
| Reuse | 2 |
| Renewable energy use | 2 |
| Adherence to international initiatives (Global Compact) | 1 |

| Constructions of | 1 |
|---|---|
| Green storage | 1 |
| Companies should also develop an organizational culture that encourages, | 1 |
| for example, team collaboration and proactive behavior to find innovative | 1 |
| sustainability solutions | |
| Green performance appraisal | 1 |
| Sustainability certificates recognized by customers and secondary | 1 |
| stakeholders | |
| Commitment of management to sustainability | 1 |
| Environmental awareness as culture of the organization | 1 |
| Contracts in which suppliers and customers agree to the ethical code | 1 |
| Cooperation with consumers | 1 |
| Environmental and economic performance | 1 |
| Development of green products | 1 |
| Eco-efficiency | 1 |
| Consumer education | 1 |
| Management in order to minimize the handling of hazardous materials | 1 |
| Supply Chain Oriented Water Management | 1 |
| Carbon management | 1 |
| Central importance of supplier management and logistics for obtaining | 1 |
| sustainable supply chains for Oil and Gas | 1 |
| Pollution Prevention Indices | 1 |
| Influencing stakeholders | 1 |
| Sustainable supply initiatives | 1 |
| Supply Chain Innovation for Sustainable Development | 1 |
| Sustainable Innovation | 1 |
| Environmental Leadership | 1 |
| Limits on Carbon Footprints in the Supply Chain | 1 |
| Measuring environmental performance | 1 |
| Reputation improvement | 1 |
| Standards and Certifications | 1 |
| Carbon footprint | 1 |
| Strategic planning for environmental management | 1 |
| Carbon dioxide emission tax policy | 1 |
| Environmental Management Practices | 1 |
| Sustainable Gas Supply Chain Management Practices | 1 |
| Green production | 1 |
| Certification Programs | 1 |
| Ecological Projects | 1 |
| | |

| Redesign of products and packaging | 1 |
|--|-----|
| Packaging reduction | 1 |
| Reduction of gas emissions | 1 |
| Reduction of greenhouse gas emissions | 1 |
| Reduction of material used | 1 |
| Waste reduction | 1 |
| Sustainability Reports | 1 |
| Selection of suppliers that plays an important role in achieving the social, environmental and economic benefits of SSCM | 1 |
| Green selection | 1 |
| Quality Seal | 1 |
| Replacement of a non-renewable product with renewable | 1 |
| Internal management support | 1 |
| Corporate Sustainability | 1 |
| Eco-friendly technology in production | 1 |
| Ecologically correct technology in sales | 1 |
| Ecologically correct technology in transport | 1 |
| Advanced green technology | 1 |
| Green Transport | 1 |
| Training and education | 1 |
| Green Training | 1 |
| Use of recycled materials | 1 |
| Supply Chain Oriented Water Management | 1 |
| Total | 142 |

Anti-Corruption (Principle 10)

From the systematic review of the literature, 6 practices regarding the Anticorruption pillar were identified, which represents only 3% of the total result of this research (Table 10).

Table 10. Anti-Corruption Identified Practices

| Practices Found | Quantity |
|--|----------|
| Collaboration between customers and suppliers | 3 |
| Adherence to international initiatives (Global Compact) | 1 |
| Contracts in which suppliers and customers agree to the ethical code | 1 |
| Identify and disrupt supply chain corruption schemes | 1 |
| Total | 6 |

6. Final Considerations

The main purpose of this study was to investigate whether the sustainable practices found in the supply chains of different segments are following the guidelines proposed by the UN Global Compact. This study also sought to clarify the role of the UN in relation to sustainability. Notably, the entry of the United Nations in this respect has transformed the scale of perception in relation to environmental / social problems to another level of complexity and level. This fact was historically contextualized and led to the central question of this research: do the sustainable practices adopted in supply chains found in the literature in the last five years follow the sustainability guidelines indicated in the UN Global Compact?

To answer this questioning, the methodology of systematic literature review proposed by Denyer and Tranfield (2009) was used. The Elsevier-Scopus database was selected because it presented a high academic level and from pre-established keywords and a five-year time frame (2013-2018), the result was 518 articles, of which 68 were selected for presenting, in a clear and objective way, sustainable practices in supply chains.

It was identified that, of the four pillars proposed by the ten principles on Human Rights, Labor, Environment and Anti-Corruption, the Environment Pillar was the most outstanding, representing a total of 72% of the research. In the Environment segment, approximately 50% of the practices that stood out were Green Purchases, Green Suppliers Selection, Life Cycle Assessment, Carbon Emission Reduction, Eco Design, ISO 14001, Cleaner Production and Energy Reduction. As seen in the previous chapter, all these practices follow the guidelines proposed in Principles 7, 8 and 9 that underpin the Environment pillar. Research has shown that issues such as Human Rights and Anti-Corruption are not receiving the attention deserved, since only 9% of the practices identified were associated with Human Rights and 3% with respect to Anti-Corruption. Given the current scenario of globalization, the possibility of cheap labor and low material costs, manufacturers of most of the products that are consumed in developed countries have reallocated their production bases and production facilities in Emerging Economies (Geng; Mansouri; Aktas, 2017). These issues can be seen as problematic, given that some of these countries are notoriously known for indifference to these principles so essential to humanity (UN GLOBAL COMPACT, 2018). Finally, in view of the whole debate presented throughout this dissertation, it is observed that the Ten principles proposed by the UN must and must be seen as a determinant role for issues inherent to sustainability in the supply chain.

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