

Management Supply Chain Green: a Case Study in a Brazilian Agribusiness Industry

This study aimed to analyze the environmental management practices adopted by partner companies Agribusiness Alpha, located in the south of Brazil in the perception of managers. These partners are also called suppliers or subcontractors. This agribusiness exports to about 110 countries. It is one of the largest private employers in the country and has approximately 114,000 employees. The study was conducted in a single plant. In this unit there are 150 registered suppliers. 6 vendors who provided the most services for the unit studied in the last year of work were selected. It was found that the key practices undertaken in firms are evaluated in relation to solid waste management. Only two of the surveyed companies have standardized and appropriate waste generated in their management processes. Likewise, only one firm has positive practices in relation to water resources. Therefore, this work can be considered a guide to improve the practices of small and medium enterprise suppliers of Alfa. The role of alpha is essential for induction of Green Supply Chain Management in the supply chain as a whole.

Keywords: Green Supply Chain Management. Environmental management. Agribusiness Industry.

1 INTRODUCTION

Supply Chain Management (SCM) is a strategy that helps organizations move, store, convert and deliver products effectively and efficiently. It's an old concept that was conceived in 1975. In the 90's a new concept, called Green Supply Chain Management (GSCM) was created and is the involvement of the purchasing function in activities that include reduction, recycling, reuse and replacement of materials (Narashiman and Carter, 1998). It is a closed loop supply chain with minimal use of resources and is environment friendly (Jain and Sharma, 2014).

Jain and Sharma (2014) emphasize that GSCM is considered a major part of the organizational strategy for companies that want to become environmentally friendly and socially responsible, to meet the demands of the customers and fit the legal requirements by governments. They also point out that there are 14 elements that have significant impact on the implementation of GSCM in organizations, namely, pressure from customers and competition, governmental regulations, environmental management system certification supplier environmental collaboration with suppliers, customer collaboration, social responsibility and ethics, business benefits, pressure from employees, exports and sales to foreign customers, competition, sustainability of resources, reduced costs, return on investment and organizational factors: commitment, awareness and experience; Are elements

that help organizations that need to deal with financial crises, lack of resources, climate change, environmental impact of operations, customer awareness for green products. Furthermore, by adopting GSCM practices can organizations be able to communicate more effectively to the government that they are committed to improving their environmental performance.

Khidir and Zailani (2011) emphasize that the pressures of regulation and the customers can be considered coercive isomorphism, because they focus on the use of rules, laws and persuasion as the basis for compliance. Its social responsibility can be considered normative isomorphism, because it is based on the expectations of society, organizations should respond appropriately. Have acceptable practices or commercial benefits can be considered cultural-cognitive isomorphism because it is based on rational desire for a company to adopt initiatives that prove to have value in other technical organizations. Jain and Sharma (2014) point out that due to the complexity of GSCM, organizations need to aim in the right direction, defining policies, planning practices and strategies for achieving low cost and profitable GSCM.

In addition, Green Supply Chain is a strategy that strives for minimal environmental impact. Encompasses best practices to reduce carbon emissions across the supply chain, from material supply, product design, manufacturing, distribution, delivery, and finally recycling at end of life cycle. The demand for traditional SCM optimization metrics of costs, inventory management, service level, among other organizations. A green supply chain further includes measuring carbon emissions. Due to global warming, climate change, emissions of greenhouse gases increase the costs of energy and resources. And growth and international expansion and market competition corroborate that more organizations opt for operations and activities environmentally friendly (Jain and Sharma, 2014).

Brito and Berardi (2010) emphasize that the adoption of environmental practices in the supply chain is driven by institutional pressures, pressures to minimum standards and competitive pressures in the production chain. To occur the development of Green Supply Chain (GSCM) in Brazil, there are three important perspectives that serve as a stimulus, namely: the National Solid Waste Policy, pressure from the international market and the search for environmental certification (Alves & Birth, 2014).

Rao and Holt (2005) argue that organizations that adopt GSCM in Asia, are those that have greater competitiveness are concerned with improving the efficiency, quality, productivity and cost reduction. In Asian companies, some are working closely with suppliers to reduce emissions, monitor waste streams, configure its environmental programs and even extend technical support to help them with the conversion of natural resources. Therefore, the

incorporation of GSCM practices demand improvement of environmental management companies, providing training programs, and sharing of the environmental management system.

Testa and Iraldo (2010) found in their study developed in industrial companies from seven countries that the factors that determine the implementation of green supply chain are associated with the existence of an environmental management system, reducing the environmental impact of operations and the relationship between environmental and financial performance is still inconclusive and ambiguous. Pagel and Wu (2009) by means of a qualitative study showed that the ability to innovate and a positively oriented management for sustainability are needed to build a green supply chain. Khidir and Zailani (2011) show that Malaysian companies respond to regulations and pressure from customers demanding the adoption of green supply chain initiatives, but the decision is based on evaluation of the benefits obtained by the company to adopt these practices. Therefore, the expected gains of business may have impact on GSCM initiatives, followed by regulations, customer pressures and social responsibility (Jain and Sharma, 2014).

Furthermore, Jun et al (2010) highlight the following environmental targets organizations that implement GSCM: reduce consumption of energy, water and natural resources; increase the use of clean and renewable sources of energy; reduce emissions of waste and pollution; improve the processing of by-products

Barbieri et al (2014) developed a bibliometric study on GSCM and found that the thematic innovation in sustainability, cleaner production (CP), Development Mechanisms (CDM) and energy efficiency were found in the work produced on GSCM. This finding differs from that of Srivastava (2007) model that classifies the practices associated with GSCM from the context of the problem, namely: analysis of the life cycle, ecodesign or environmental design, and reverse logistics network design, green operations, management waste, green manufacturing and remanufacturing. In the study conducted in Brazil, was featured in the inexistências studies in the context of GSCM on "planning and scheduling, inventory management, product and material recovery, reuse, repair / refurbishment, disassembly within the framework of green manufacturing and remanufacturing" (Barbieri et al, 2014, p.20). In the context of reverse logistics is no opportunity for studies on inspection and sorting and pre-processing. On waste management there is room to investigate the disposal, source reduction and pollution prevention. And yet the design themes green and ecodesign. The occupation of these gaps will contribute to the consolidation area in Brazil and recognition abroad.

However, Leal et al (2009) emphasizes that the incorporation of the principles of GSCM in a chain of production requires the integration of economic, social and environmental issues that should permeate all internal processes, external relationships and encompass the entire supply chain.

In this context, this study seeks to analyze the environmental management practices adopted by partner companies Agribusiness Industry Alpha, located in the south of Brazil in the perception of managers. To maintain the anonymity of the company studied throughout this work she was called agribusiness industry Alfa. The paper is structured as follows: provides a brief review of literature related to GSCM. The methodology describes the subjects that were surveyed and the selection criteria of the survey participants. The presentation and analysis of data referring to transcriptions of the interviews that were developed. And finally the conclusion that delimits a scope for future studies on the subject.

2 GREEN SUPPLY CHAIN - GSCM

Xue (2014) points out that since the 1990s the studies within the production has focused on introducing the concept of green manufacturing supply chain, namely: a) the concept and green manufacturing process; b) technologies and green manufacturing processes; c) the applied research on green manufacturing; d) the assessment of green manufacturing system.

In the supply chain, Green Supply Chain Management (GSCM) emerges as a new concept corporate responsibility to the environment. The reasons for the slow development of the concept in Brazil can relate to characteristics the national market, business focus on internal aspects, lack of strict laws and low consumer pressure. However, experts emphasize supplies there are good prospects for future discussions of the subject in the country, by virtue of the National Solid Waste Policy, pressure from the international market and the search for environmental certification (Alves & Nascimento, 2014).

As Routroy (2009) the use of ISO certifications in supply chain favors the incorporation of green philosophy. Another aspect that favors the incorporation of issues related to environmental management in the green supply chain are strict laws, especially from sectors that cause higher environmental impacts in their production chains. On the other hand, the perception of Rao and Holt (2005), Andrade and Paiva (2012) and Alves and Nascimento (2014), are several benefits resulting from the implementation of GSCM in the supply chain, namely cost reduction, higher ease of entry into the global market, reducing the

extraction of natural resources, manpower and energy consumption, substitution of materials and raw materials, waste reduction, impact on advertising and the image and reputation of the company in society, the integration of suppliers in the decision making process, differentiated purchasing strategies, creates competitive advantage, improving the level of customer satisfaction, impact on brand image, more efficient development of new products and improved relationship with regulators .

In addition, Bowen et al (2001), Alves and Nascimento (2014) emphasize that the GSCM involves waste reduction, recycling, supplier development, performance analysis of buyers, to share skills and risks, to adopt activities cleaner technologies, appropriateness of specific rules and laws of the acting industry, reuse of materials, the savings in water and energy, use of environmentally friendly raw materials, production processes more streamlined and flexible and responsibilities for all participants the supply chain. The GSCM helps to improve the performance, capacity demand across the supply chain, as well as periodic monitoring, measurement, improvement and cost reduction programs.

However, from the perspective of sustainable development GSCM is only associated incorporating improvements in environmental questions, disregarding aspects related to the social dimension. Pagel and Wu (2009) emphasize that there is a need to incorporate the three dimensions of sustainability - economic, social and environmental supply chain, in order to achieve a more sustainable performance. This more complete view happens to be called the Sustainable Supply Chain Management (SSCM), or management of the sustainable supply chain.

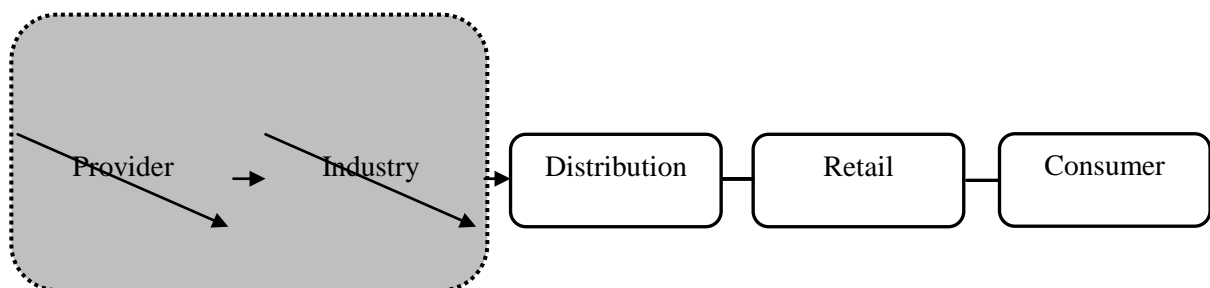
The SSCM is the management of information flows, material and capital of inter companies in a supply chain with emphasis on economic, social and environmental aspects of sustainable development. In this context, the involvement of all members of a supply chain members is considered one of the largest and most important tools for understanding the concept of sustainability. Contribute to the promotion of improvements in the performance of the parts and the whole. Create competitive advantage and add value in transactions and relationships of the chain. Require the incorporation of internal controls, monitoring, integration, awareness, engagement and transparent communication with the purpose of reducing the environmental and social logo of the entire chain (Wu et al, 2012) problems.

3 METHOD

This research refers to an analysis of environmental management practices adopted by partner companies Agribusiness Industry Alpha, located in southern Brazil, in the perception of managers. These partners are also called suppliers or subcontractors. This agribusiness exports to about 110 countries. It is one of the largest private employers in the country and has approximately 114.000 employees. The study was conducted in a single plant. In this unit there are 150 registered suppliers. 6 vendors who provided the most services for the unit studied in the last year of work were selected.

Figure 1 shows the links of the supply chain that were surveyed.

Figure 1: Locus of analysis of this research



Source: Authors (2014)

Figure 1 shows that the locus of data collection and analysis of this research is restricted to the vendor and industry links.

The research was based on exploratory and descriptive, because the study was thorough in search of information and data on the environmental pillar of sustainable practices in other undertakings of the company Alfa, the plant located in southern Brazil.

Six managers of selected companies were interviewed. In Alfa professionals Supplies (negotiator) and human resources assistant were surveyed, totaling two interviewees. The negotiator supply area was chosen because of his knowledge of the list of suppliers, negotiation and content of contracts with third parties. Employees of Human Resources, responsible for requirements gathering and documentation of compulsory third party referrals. Subcontractors in the choice of managers and entrepreneurs was associated with the fact that they are important stakeholders to identify the level of knowledge about the relevant environmental management and sustainability issues. For interviews recorder was used to record the statements made, in addition to notes of the main declared. The data collection points for this study was performed between March to May 2014.

Having the data from the interviews, they were transcribed in full. It was later made a brief reading, as the author recommends Bardin (2011). The steps that are followed are: a) decomposition of the material to be analyzed into parts; b) distribution of parts into categories; c) description of the results of categorization; d) inferences of results; e) interpretation of the results obtained with the aid of theoretical basis adopted.

Categorical or thematic analysis, which is described by Bardin (2011) as the process of analyzing text from categorized and grouped similarly in relation to themes units was adopted in this study.

4 UNDERSTANDING OF RESPONDENTS ON THE CONCEPT OF SUSTAINABILITY

Table 1 describes the accounts given by respondents about the level of understanding of the concept of sustainability.

Table 1: Understanding the surveyed about the concept of sustainability

Respondents	Understanding of sustainability
Human Resources Assistant	Sustainability is the ability of humans to interact with the world, preserving the environment so that future generations are not compromised and enables the continuity of human life on earth.
Negotiator	Sustainability is being consolidated in the market by offering quality products that add quality of life and maintain their revenue through the business of the company. Another understanding is the utilization of natural resources in a conscious way that does not harm the environment or that these resources may be lacking in the future. The involvement of the community and businesses in these actions must be integral. Simply, it can be stated that the effectiveness of sustainability in a project or in a particular region is to guarantee that even explored that area will continue to provide resources and economic and social well-being for communities who live in, where new generations can enjoy these same conditions offered today.
Manager of Company B	I do not have understanding of the sustainability issue.
Manager of Company B	Sustainability is the company be able to maintain a portfolio of clients and have structure to find new customers and thus maintain the economic sustainability of the company.
Manager of Company C	Sustainability is more aware of dealing with natural resources and the disposal of waste generated by man mode.

Manager of Company D	Sustainability is producing himself for the survival of the company.
Manager of Company E	Perform the tasks efficiently, using fewer natural resources and consequently less waste generation processes. Thus we seek profitability and economic outcome for the company.
Manager of Company F	Activities are focused on self sustainable area with environmental and social relationship. One example is the fabrication of a more durable material mat and with recyclable material.

Source: Authors (2014)

As recorded in Table 1, we see that there are different understandings of sustainability. The manager A has no knowledge about sustainability. One realizes that the only negotiator Alfa has complete knowledge about sustainability that includes three supporting pillars: environmental, social and economic. The concept of sustainability is also understood to be something that is related to natural resources and the sustainability. Only two interviewees highlighted depicting the social dimension aspects.

Table 2: Existence of policies or goals related to sustainability

Respondents	Mentioned Aspects
Human Resources Assistant	I believe so, as well as preserving the environment it seeks to reduce impacts to the economy and conscious use of water. Acts preventing pollution by checking the amount of gases emitted into the nature and seeks to develop healthier products with reduced sodium, sugars and fats benefiting the end consumer and the nearby community.
Negotiator	The Alfa is directly involved with the community, attending strictly to federal, state or local policies, strategically have specialized sector to address the issue, which outline guidelines and goals in the pursuit of continuous awareness of the use of natural and human resources development. Example guideline is consumer awareness of energy use / water. Goal: Reduce energy consumption during peak hours. The company has a power controller programmed in peak hours to manage this goal.
Manager of Company A	Just by not having a knowledge on this subject my company has no policies and goals related to sustainability.
Manager of Company B	Currently my company has no policy or target set. Believe still not a priority for me. First I would like to establish financially first.
Manager of Company C	Yes, we have implemented operating procedures and indicators that assess them.
Manager of Company D	Formally have nothing policy and goals in my business. I never thought to define and disseminate a policy.
Manager of Company E	The company has sales targets, productivity, turnover and sales. We have no policy or target for sustainability issues.
Manager of Company F	Formally own nothing definite about sustainability.

Source: Authors (2014)

Totalling eight respondents - Assistant Human Resources, the Negotiator, Managers of Business A, B, C, D, E and F were interviewed.

The definition of policy goals and practice is not held by most of the companies analyzed. Company C is the only company that has a policy and goals related to sustainability.

Environmental policy should contain items that provide a comprehensive framework for setting and reviewing environmental objectives and targets. The best way to demonstrate this condition is the unfolding of the statements contained in the policy goals and objectives of the company. (SEIFFERT, 2011)

Importantly, the development of policy and subsequent goal setting is assurance that the company will have to support the appropriate implementation of an environmental management system and actions related to social context.

Table 3: Stakeholders important to your business

Respondents	Mentioned Aspects
Human Resources Assistant	Believe in partners who care about the same causes that our company and deserve special attention. This goes for the social side as well. They must have credibility and reliability in work performed.
Negotiator	One goal of the Beta is seeking suppliers on the market that are aligned with the policies adopted by Alfa, suppliers who through their actions and results demonstrate the globalized world to be aware that the exchange of information, commitment and joint efforts to enable positive all. Thus, I believe that the major partner is one who is aware of their responsibilities, contributing to innovations and discoveries to create new ways of doing.
Manager of Company A	The partners consider more important are the customers and also the C that helps my business a lot in relation to management and training.
Manager of Company B	I consider the most important partners customers and suppliers, is what makes the company work gear. Must have good relationship with suppliers to create partnerships and successfully meeting the customers as they wish.
Manager of Company C	The partners believe that customers are the most important in my case specifically the Alpha and also consider it important to companies that collect our waste production.
Manager of Company D	The focus and goal of the company is undoubtedly first employees, having employees aligned with the company can produce with quality to sell to our customers. Suppliers are also important so that you can acquire the best raw material.
Manager of Company E	I consider employees as key partners. Are the gear to achievement of results and generation of good customer service.
Manager of Company F	Consider the customer as the most important partner, because the demand is very high and it all starts at the customer's request. From there you get to run your process.

Source: Authors (2014)

As can be seen in the interviews, there is a concern for synergy throughout the production chain. This in turn occurs when there is cooperation between the different subjects studied that interact with the organization. Above all, they are aligned with the politics of agribusiness Alfa, which takes inputs from suppliers surveyed.

Table 4: Environmental Management Practices that Alfa have built into their processes

Respondents	Mentioned Aspects
Human Resources Assistant	The company has in the environmental control and is constantly audited to ISO 14001, in addition to internal audits (Cup of Excellence) that its outcome impacts the financial bonuses of employees (Profit and Results). Also has control indicators of consumption of utilities such as water, steam and electricity). It then returning the water to the river, reducing environmental impact, replacing equipment with more energy consumption by new and more economical equipment.
Negotiator	Purchase products / materials from companies that meet environmental legislation; Animal welfare goods - Be handling the transport or slaughter; Awareness of the separation of garbage in all company processes; Conscious of natural resources (water and electricity) use; Investments linked to environmental management projects, eg the cistern to store rainwater; Analysis of waste and its impacts with the environment; Proper disposal of waste produced; Water treatment used before returning it to the soil; Training of its employees and suppliers;
Manager of Company A	In my now seek to accomplish the separation of glass, metal and paper.
Manager of Company B	The company has no formal and specific environmental management programs, but consider the allocation of waste copper and aluminum correctly because apart at specific locations and then make the allocation to specific buyers.
Manager of Company C	The proper disposal of all waste generated by the kitchen, with documentation to date of all the companies involved; Reduce the consumption of cleaning chemicals, charging a dilution from our supplier in order to use them with quality and economy; Washing and cleaning kitchen buckets of water with and without using hoses reducing water consumption.
Manager of Company D	There is the separation and disposal of hydraulic and mineral oil as waste collection and sale to a person entitled to the destination company.
Manager of Company E	We have separation of waste, including disposal for the considered class I to CETRIC (company specialized in waste destined class I). The place set for painting has a system to reuse water and turns the air into the ink blots which is also intended to CETRIC. The oils used in the process are stored and shipped to a company in Porto Alegre. We also do not practice 5S program implemented
Manager of Company F	Try to separate the metal for subsequent sale by steel types. The other residues are intended for normal gathering hall.

Source: Authors (2014)

As it relates to environmental management practices practiced in company processes the respondents mostly that waste separation is the main practice performed.

The management of Company C reported that the reduction of chemicals in cleaning areas is also a practice that was implemented in the company and the manager of the company and reported that addition of waste separation, there are practices in water reuse in the paint booth, which helps to reduce particulate emissions to the atmosphere through the air in the ink capturing and processing solid residue.

Through information passed on by the employees interviewed agribusiness Alfa there are many practices to be implemented in the processes of their suppliers as the implementation of ISO 14001 and the implementation of indicators related to environmental management.

Regarding the benefits of the ISO 14001 certification, Junior et al (2013, p. 41) describe in their study that was possible "evidence that businesses certified by the NBR ISO 14001 accentuate a larger set of environmental factors in its management through controls, actions and structured programs, thereby demonstrating greater environmental concern. "

Table 5: Documentation required from providers of contracted services

Respondents	Mentioned Aspects
Human Resources Assistant	<p>The documents are divided in three categories:</p> <p>Company documents in the approval of service: social contract, copy CNPJ - National Register of Legal Entities, CND federal- Clearance Certificate Debit federal, state CND, Town CND, CND INSS - Debt Clearance Certificate from the National Institute of Social Security, CRF FGTS - Consultation Regularity Employer Guarantee Fund for Time of Service, CNDT labor - Debt Clearance Certificate Labor, collective agreement category, PPRA signed and stamped - Program for Prevention of Environmental Risks, LTCAT - Technical Report of Environmental Conditions Working signed and stamped ART - Technical Responsibility of the engineer in charge and PCMSO - Program for Medical Control of Occupational Health signed and stamped by the head.</p> <p>Documents of company employees: ASO - Occupational Health Certificate, record of PPE - Personal Protection Equipment, tab, CTPS - Portfolio of Work and Social Security, and technical skills.</p> <p>The following documents are required when issuing invoices and release by controlling subscriptions and TLCD TMSOE. Documents required monthly: SEFIP / GEFIP - Enterprise System Collection of FGTS / Guide Collection of FGTS and the Information Security Guide,, discharge INSS - National Institute of Social Insurance, Guide to discharge the FGTS - Guarantee Fund for Time service, discharge from the ISS - service Tax and payroll for employees.</p>
Negotiator	<p>Normally our future suppliers before joining the register visit us and show their skills. At this time some important requirements are assessed as number of employees, capital, business integrity by the tax authorities and other relevant bodies, service capacity, history of services provided in the market. Our engineering team also makes technical analysis of this prospective supplier.</p> <p>After this assessment and registration of the company, the employees who are part</p>

	<p>of it and provide services from Alfa are invited to a training which is offered on the premises of agribusiness. This training is called basic integration, this time all the basic conditions required by Alfa Group and is passed only after this training the company and its employees will be able to enter and perform their services within the premises of Alfa.</p> <p>This process is secured with the ordinance, where a system of consultation and third party release is available. The third is to provide you with your document awaits the service provider (vigilante) accessing the system shows if the company and the employee are free to access and perform the contracted service.</p>
Manager of Company A	There is not a specific charge. What key customers require hiring a vendor to collect waste metal.
Manager of Company B	Currently there is no charge customers for introducing practical in my case. What exists is that when we perform the service within a few customers there is a charge to keep the areas clean and allocate the waste in the correct locations and defined.
Manager of Company C	I do not have any charges beyond those already implemented in our processes.
Manager of Company D	Are charged only in the separation and cleaning areas in the maintenance performed within client companies. For example if a fall to the ground electrode joins with a tow and throw in trash identified.
Manager of Company E	The recovery is when we perform business services, in relation to disposal of waste we generate, and sometimes we need to bring the waste back to the company intended here. Regarding the documentation there are no charges.
Manager of Company F	The charge is in relation to separation of waste from maintenance performed in works within the units of some major customers.

Source: Authors (2014)

According to information provided by the managers of outsiders Alfa with respect to other environmental management practices related to the majority responded that the main charge is adequate separation of waste when performing services within the premises of the Alfa.

About the importance of waste separation in companies is possible to identify the study by Alves and Nascimento (2014) that experts are seeing good prospects for the development of future discussions on the management of green supply chain, because of the national policy of solid waste, pressures coming from the international market and seeking certification of its environmental management system.

The above analysis demonstrates the importance and care managers of outsiders have to perform service and maintenance in the areas of agribusiness industry Alfa.

Table 6: Control system of documentation required from suppliers

Respondents	Mentioned Aspects
Human Resources Assistant	The documentation is always delivered in hard copy and 72 hours in advance of the date of entry into the unit to provide the service and after finalization of the contract. When is technical assistance or any emergency service, the release is performed with a waiver completed and signed along with the other documents. After delivery and validation of PPRA - Program for Prevention of Environmental Risks, LTCAT - Technical Report of Working Conditions and Environment PCMSO - Program for Medical Control of Occupational Health

	<p>at SESMT - Specialized Service in Safety Engineering and Occupational Medicine is made the registration on Third Party Management System (TMS) and released employees to participate in the integration of basic training. After the integration is released employees to enter and render service.</p> <p>All documentation is released on Excel spreadsheets to perform control of validity of documents and perform the collection of the third, so to win the same rectify backlogs. If it does not deliver the overdue documents or documents regarding the monthly payment is blocked until the regularization. All documents are stored in a separate file and per company. At the end of each year, all expired documents are stored in a permanent file for 10 years.</p>
Negotiator	<p>There is a document called the Alpha Memorial descriptive of the work which is prepared by the technical engineering team. This document contains all necessary to perform the contracted service requirements, noting that the requirements are changed according to the requirements of each project.</p> <p>It should also be noted that the integration of basic training is highlighted by safety inspector what are the regulations related to health, safety and environment which must be followed when it is rendering service within the premises of the Alfa.</p>
Manager of Company A	I think quite the proper separation of waste but do not possess adequate to perform all actions to fully and properly implement this environmental practice knowledge.
Manager of Company B	I've walked without really taking a look at deepening environmental seals and also the standards mainly ISO 9001 and subsequently ISO 14,001. I believe it is a must before I deploy to ISO 9001 and then to 14.001.
Manager of Company C	I believe that within our own monitoring all practical requirements, since both our company, as our customer are many customers.
Manager of Company D	I believe that improving this system of separation of garbage I have and other programs such as 5S I have worked in an agribusiness and helps a lot in the process of the company. Just admit that you lack knowledge and information to put into practice.
Manager of Company E	I believe that we are able to have a control and goals related to solar energy with the goal of saving and cost reduction. Think it necessary to survey the aspects related to the environment of our activities.
Manager of Company F	Separation of some materials not yet accomplished (organic and household waste) and a 5S program like that have not yet formally.

Source: Authors (2014)

When asked about environmental practices that have not implemented in your company and that good results could add to its growth, managers consider certification of ISO 14001, 5S program, the implementation of the management of environmental aspects and impacts and the full implementation and effective waste management.

The management of Company C said that due to the requirement of customers your company already has all the necessary for your segment environmental practices.

About ISO 14001 Alves and Nascimento (2014, p. 517) report that "it is a managerial standards arising which aims to highlight the environmental impacts of management activities enterprise process and the life cycle of products/services ".

With respect to the 5S Silva (1996) concludes that program in Brazil 5S program should be disseminated widely, with the application of their senses: use, order, cleanliness, health and self-discipline to implement environmental quality. With the implementation of these senses, the objective is the stimulation of education and continuous development for survival with dignity.

Table 7: Treatment adopted if a provider fails to comply with the delivery of mandatory documentation

Respondents	Mentioned Aspects
Human Resources Assistant	If the supplier does not comply with the requirements of the approval documents requested have not made the system registry. If it does not deliver the documents or other accrued monthly (CND's - Debt Clearance Certificate) is blocked if the payment does not have the approval documents and the service is an emergency, the facility manager is to release by the end of the exception, assuming responsibility until the delivery of the required documents.
Negotiator	Surely any negotiations that may occur where the purchased product or service offers some risk be it environmental or social aspect analysis is performed considering the environmental, social and economic aspects. We have a policy document - DMS 2158 - Monthly Statement of Services, which classifies each operation and what is the risk that each activity offers. Depending on the classification requirements are allocated and classified as low, medium or high impact on social, economic and environmental purposes.
Manager of Company A	Surely believe that employees of my company will absorb the actions and practices and assist with deployments. Even the company has employees in college.
Manager of Company B	Yes, because every employee currently enrolled or have college or technical course. I think this helps a lot.
Manager of Company C	No, I believe we may have some difficulty because the employees have little education and do not yet have the flexibility to easily incorporate possible practices to be implemented awareness. They perform the activities and practices with coordination and supervision.
Manager of Company D	I believe that knowledge is not the obstacle to deploy environmental practices or other situations of improvement. Depends on each one, I think is more related to the culture of each employee.
Manager of Company E	Our team is able to receive guidance and are well qualified technically, and are engaged in what they do.
Manager of Company F	Not all employees have knowledge to implement environmental or social practices. Hence the importance of always being guided on what they should do.

Source: Authors (2014)

The managers' perception of outsiders about the importance of the knowledge level of employees in the implementation of environmental practices shows that most managers believe that the level of knowledge facilitates the implementation of actions. Including the manager of the company mentions that C may have difficulties in implementing practices due to the knowledge level of the employees actions.

The manager of Company D believes that the knowledge level of the employees will not influence the implementation of practical actions related to the environment.

Table 8: Perception of managers if employees accept the incorporation of new practices and routines

Respondents	Mentioned Aspects
Negociador	Environmental policy is a pillar formed within the Alfa Group, both for the company has a program called HSE - Health Safety and Environment, which is rigorously practiced by all ranks through training and practical applications. This program exceeds the internal barriers and she requested to employees and third parties who practice in their daily lives while they are within our company.
Manager of Company A	As mentioned earlier they accept and contribute ideas for improvements that deploy in business.
Manager of Company B	Yes, my employees easily accept all guidelines that are passed on to them in relation to new works. Shown to be open to new ideas and suggestions.
Manager of Company C	Do not accept so easily but managers invest a lot in training and in this way managed to get good results with employees.
Manager of Company D	As mentioned earlier, depends on each one. A readily accept everything that you propose and contribute to the ideas and others have greater difficulty.
Manager of Company E	Always accept the guidelines appropriately and contribute to improvements occur with the planned outcome.
Manager of Company F	Yes, when urged to accept or perform some new practice they easily absorb and participate. I always try to encourage partnerships among employees.

Source: Authors (2014)

Most managers of outsiders Alfa employees say their companies accept the incorporation of new practices and routines, being important for successful implantation how to instigate and guide employees on new practices factor.

The management of Company C reported that employees do not accept so easily, being very important in obtaining the training success of the proposed actions.

According to Campos (1994) to implement a timeline for accomplishment of the actions of total quality control requires a change of behavior, and as such requires time, higher education and training.

Table 9: Existence of sustainability training for employees

Respondents	Mentioned Aspects
Manager of Company A	There are certainly important training but I have no knowledge to define. When you need a specific training look SENAI and even suppliers to seek training.
Manager of Company B	No, I'm as reported previously with other priorities for now and then think about the issue of development and environmental quality.
Manager of Company C	The training that I consider important are those related to the proper disposal of waste, control of waste and proper waste separation, beyond the 5S program.

Manager of Company D	Certainly there are several important training. But as I do not have knowledge on the subject, the cost to get these trainings outside the company must be very large.
Manager of Company E	I can not see at the time that training is a priority to apply with employees.
Manager of Company F	Consider training in NR 18 standard deals with safety in the workplace, organization, cleanliness of the work environment and always seeking continuous improvement.

Source: Authors (2014)

In general the managers of the companies surveyed consider the training program related to 5S, safety and proper disposal of waste as important to assist in the search for sustainability.

The manager of the company said that D lacks knowledge to prepare or acquire appropriate training for its employees. This information demonstrates the importance of this research in order to provide appropriate material for the manager incorporate into your business processes.

"Organisations map the competencies to be developed using practical tools to identify the demands on internal learning". (Andrade & Rodrigues, 2008, p.12).

We highlight the importance of defining the necessary training to each employee so that the objectives are achieved in its fullness.

Table 10: Type of behavior required for the operational sector employees

Respondents	Mentioned Aspects
Manager of Company A	Regarding the attempt to identify the behavior of the employee experience in the electrical part, which has schedule availability, because we have to meet the client at the time he needs and also has license to drive company cars.
Manager of Company B	First I try to identify the technical knowledge of the employee due to the feature of the company is very important. I also hope that he has a proper posture while working.
Manager of Company C	Because the operating employee has a lower level of education which I hope is that he can put into practice the teachings that are passed on in training, to compensate for the lack of proactivity.
Manager of Company D	The behavior that I try to observe the employees are humility, because that way they will be able to listen and apply the guidelines to carry out the activities correctly. Another feature is a proactive, not waiting and stopped when one job ends and instead look for other things to do.
Manager of Company E	I always hope the employees' commitment to their work. Respect the family, the neighbor and the assets it uses. The mood is also seen in the behavior of an employee.
Manager of Company F	I hope for an official first dedication in everything he performs within the company and also if he is worried about the professional growth through involvement in the company and develop through courses and studies.

Source: Authors (2014)

With respect to a desired behavior contribute to the operational sector, managers of firms A and B mentioned the technical knowledge as an important factor. The dedication, commitment and proactivity were the characteristics considered most important in the analysis of an employee's operational sector profile.

The analysis of the data in Table 10 demonstrates that technical knowledge aligned to the interest of the employee to cooperate with the good results of the company are important factors in defining a candidate for the operational sector of outsiders company Alfa.

Table 11: Practices considered important and what time needed for implementation

Respondents	Mentioned Aspects
Manager of Company A	A program that I know and have something implanted is the separation of waste and garbage that I believe take around 6 months to complete deployment.
Manager of Company B	Believe that the implementation of ISO 14001 in the future will be paramount to the company's growth. With respect to the time necessary think it will take around three years to enable the implementation.
Manager of Company C	I do not have good knowledge of other important practices in addition to those we already have. An important program such as 5S believe it takes around 1 year to be incorporated in the company.
Manager of Company D	If it is a 5S program believe takes around 40 days to deploy it. I am not aware of other practices necessary to know the time of implantation.
Manager of Company E	As talked about formalizing the survey of environmental aspects and impacts think an important practice that should take around six months to complete this work.
Manager of Company F	Important to consider a more comprehensive environmental management system, we already have some actions embedded in practice. I believe it can take around 90 days deployment of these new shares.

Source: Authors (2014)

Managers of companies B and F consider the implementation of an environmental management system as important in their practice and the deadline for implementation diverges perception, being the manager of company B mentioned three years and the company declared an F-term deployment 90 days.

Managers of companies C and D defined the 5S program as a major environmental issue, where the management of the company mentioned a C implementation period of approximately 1 year. The manager of Company D reported that lack of knowledge to set a deadline for implementation of the program.

With the deadline for the implementation of a quality system Mears (1993) defines that management through total quality must be a permanent, long-term, aiming at customer

satisfaction using a process of continuous improvement of its products and services provided by the company.

Importantly, there is no set deadline for implementing a quality program or system. We know it must be gradually, without haste and always aiming at the planned end result.

Table 12: Difficulties that may be encountered in the implementation of environmental practices

Respondents	Mentioned Aspects
Manager of Company A	I think the financial issue, because it must be costly to deploy the necessary improvements. Another issue that I think hurt is lack of knowledge of other important practical and could improve my business.
Manager of Company B	The main difficulty is with respect to economic, because I will have spent on improvements and with the ISO 14001 standard. I would also comment that there are other priority projects before thinking in environmental management.
Manager of Company C	As previously commented on the low level of education and the lack of proactivity of employees.
Manager of Company D	The biggest difficulty I have to implement environmental practices is the lack of knowledge and practice to implement the concepts of programs and tools.
Manager of Company E	The difficulties are related to corporate issue, submit and approve projects can take a long time for being a multinational company. The good part is that we had resources and training for implementation of the proposed practices.
Manager of Company F	The characteristics of some works we perform, where we have difficulties keeping the environment clean and adequately dispose of some materials such as the blade.

Source: Authors (2014)

The data exposed by managers related to the difficulties that may be encountered in the implementation of environmental practices demonstrate that the economic issue, the lack of knowledge about relevant programs and practices environmental issues and the lack of commitment and proactivity of employees can undermine the effective implementation planned actions to improve or implement an appropriate environmental management for third companies of Alfa.

In the study by Abdalla and Feichas (2005) on the major difficulties in seeking certification of the environmental management system are considered the direct cost of complying with these audits, the indirect cost to the involvement of employees and expenditures for compliance with environmental compliances .

Thus is exposed a need to prepare for actions that clarify the operation of an environmental management system, in addition to the development of content and procedures easy to understand and motivational content to make employees understand and adhere to proposed actions for continuous improvement environmental management of the company.

Based on hindering deployment, the perception of respondents on relevant practices for environmental management and the theoretical constructs discussed in this dissertation, a plan of action for the surveyed companies was drawn.

Table 13: Practices that the company must deploy that contribute to the social / environmental issues

Respondents	Understanding
Manager of Company A	First proper waste separation and other programs that do not have a great cost to my company.
Manager of Company B	As previously commented on the ISO 14001 standard. Focusing on proper separation of waste and its proper disposal later.
Manager of Company C	I believe we should maintain the practices that have already done today as the proper separation and proper disposal of waste from processes of cooking and especially 5S program.
Manager of Company D	I do not think specifically in a single action, I know that there are many as I talked earlier but always falls on lack of knowledge.
Manager of Company E	An Environmental Management System based on ISO 14001 formally with documentation and practice.
Manager of Company F	More attention and expertise of the staff in carrying out activities with dust, noise and reuse of materials. Find a way to motivate and educate employees.

Source: Authors (2014)

Regarding environmental and social practices that managers have identified as important to compose a plan of action to improve their performance, they defined the deployment of an environmental management system based on ISO 14001 and the proper management of waste from processes company.

According Cajazeira and Barbieri (2005) for some organizations deploying an EMS through ISO 14001 can generate a significant competitive advantage, especially for participating in the export market.

The management of Company C mentioned that in addition to actions related to maintaining the separation of waste and the 5S program.

The manager of Company F believes that actions to motivate and educate your employees should be included in an action plan for environmental and social improvements.

Table 14: Social and Environmental Practices that customers are demanding

Respondents	Mentioned Aspects
Manager of Company A	The separation and collection of metals, in addition to mandatory training of some important customers as the HSE speaks of the environment and safety.
Manager of Company B	Specifically is not charged any environmental or social practice. What happens is when we will hold a service in the customers' are very charged cleaning site maintenance and disposal of waste generated.

Manager of Company C	The charge is to keep these environmental practices already mentioned earlier.
Manager of Company D	With regard to the environment is charged only the cleaning and disposal of waste when performing maintenances inside the customer premises. Regarding the social part is not charged anything.
Manager of Company E	There is neither an effective billing of customers. What exists is the collection already mentioned when we perform the services within the premises of the client with respect to waste disposal and clearance.
Manager of Company F	Major customers charge reusing materials in maintenance performed, using non-toxic materials within the production area and trainings on HSE (Health, safety and environment). There are also charging a checklist with requirements related to health, safety and environment which must be proven with documents.

Source: Authors (2014)

Social and environmental practices that customers are demanding of outsiders Alfa were exposed by managers, and social issues with respect to the managers of the companies B and D reported that no charges.

In environmental issues were recorded by three managers requirements with respect to maintaining the cleanliness and organization of areas at the moment and after maintenance performed. Reuse, use of nontoxic materials and training on health and safety were mentioned by the manager of the company F.

With respect to the good relationship between the stakeholders, in their study Gao and Zhang (2006) describe the existence of a process of evaluation and reporting related to social and environmental performance of organizations, and with the involvement of stakeholders through dialogue might occur to building relationships of trust with a commitment to identify and develop cooperation between partners and organizations.

You need suppliers meet adequately the social and environmental requirements requested by its clients, always remembering that the partnership should satisfy all parties.

5 CONCLUSION

This research aimed to examine the environmental management practices adopted by partner companies Agribusiness Alpha, located in southern Brazil. It was found that the key practices undertaken in firms are evaluated in relation to solid waste management. Only two of the surveyed companies have standardized and appropriate waste generated in their management processes. Likewise, only one firm has positive practices in relation to water resources.

It was found that the staff performing the separation of waste, particularly waste oils and flaps steel and metals. It is worth noting the lack of infrastructure like adequate garbage and the identification of each type of waste. Therefore, there are still few practices by service companies of Alfa. The lack of theoretical knowledge about the environmental practices of managers of outsiders may reflect the pursuit of good environmental performance of organizations.

However, Lee et al (2009) emphasize that the incorporation of the principles of GSCM in a chain of production requires the integration of economic, social and environmental issues that should permeate all internal processes, external relationships and encompass the entire supply chain. Duber-Smith (2005) argue that the motivations that prompt organizations to adopt the GSCM are alluding to target marketing, sustainability of resources, reduce costs, increase efficiency, differentiate products, increase competitive advantage, supply chain pressures, adaptação- regulation and risk reduction, brand reputation, return on investment, employee morale and ethical imperative. Christmann and Taylor (2001) point out that the export and sale to foreign customers are two key elements that contribute to improving the environmental performance of companies. Pressures consumers may also contribute.

Therefore, it is understood that there is always space for continuously improving organizational practices and realization of supply chain management. A company seeking to head toward excellence is open innovations, new trends and opportunities for evaluating their practices and propose new tools, models and systems that make it better.

The main contributions of this study are directly related to the availability of information regarding the environmental practices by partner companies of Alfa and especially the actions developed based on the results of research to improve the environmental management of the companies surveyed. This document can be considered a guide to improve the practices of small and medium enterprise suppliers of Alfa. The role of alpha is essential for induction of Green Supply Chain Management in the supply chain as a whole.

Limitations of this study are related to the number of surveyed firms, which may not reflect the full reality on environmental practices of other service companies of Alfa SA South of Brazil unit. Conversely it suggests the new research in the same segment and region encompassing other service providers to ensure the Alfa companies or even increase the number of actions to improve management and adequacy of the green supply chain.

The implementation of environmental strategies is a necessity for businesses. It is, in the production process and the implementation of activities in providing services that generate waste and air emissions, and that these sites are the biggest opportunities for improvement.

The exemption of proactive environmental strategies not guarantee for the company to create competitive advantages that can be sustained over the long term.

It is recommended for future studies to extend the analysis to the entire supply chain, namely, feed mill and hatchery, integrated producers, industrial plants, distribution centers, wholesale, retail and consumer. A systemic analysis of the agribusiness chain is prerequisite for the organization to incorporate researched as an argument for the sale of their products - the existence of a green supply chain. Or rather, the analysis of light economic, social and environmental dimensions contribute to the adoption of a management system for sustainable supply chain. Due to this attitude, you can achieve gains in the market, competitive advantage, superior performance in economic and environmental indicators and waste reduction. Greatly, impact on customer satisfaction and employees, which in turn will affect the reputation and image of the company.

Another possibility is to replicate this study to survey all suppliers of Alfa, through a survey, to conduct a diagnosis of the reality about the sustainable practices of all agents with whom it interacts agribusiness. And yet, extend the focus of analysis to the level of cooperation that can be established between the different links in the supply chain for the incorporation of sustainable practices. Further analysis can identify the advantages derived from a posture of cooperation between the links of the production chain in order to make it sustainable and its impact on economic performance.

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