

Full Length Research Paper

The creation of a department of sustainability: A case study on the role of internal networks

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The present case study assessed the legitimation process for the creation of a department of sustainability in the Brazilian subsidiary of a multinational US company. Data obtained from direct observation, interviews, and documentations were used to describe communication flow and informal counselling, tacit knowledge exchange, the integration of multifunctional abilities, and trust relationships during the four-phase development of an internal network, which contributed to the creation of this department. Complementing the thoughts integrating the relational view of the organisational theory, the present study showed that not only formal structure influence the functioning of internal networks, but also internal networks can influence decision makers with regard to the creation of a formal organisational structure aimed at addressing the company's social-environmental opportunities and risks.

Key words: Department of sustainability, internal networks, isomorphism, organisational innovation.

INTRODUCTION

The contribution of sustainability and social responsibility practices to create economic value is a complex issue. Some regional studies could not and some other studies could provide evidences of this contribution. In Romania, the concept of corporate social responsibility seems to have limited understanding among managers of the tourism industry (Ciuchete et al., 2012). A similar result was found in Pakistan, where corporate social responsibility is an emerging trend (Hussain et al., 2012).

However, in South Africa for example, a statistical analysis confirmed that financial performance of companies is related to a local corporate social responsibility index (Adewale and Sarah, 2012). Corporate social responsibility projects have also significant impact on business performance and competitiveness in south Brazil (Lohn et al., 2012). In addition, research in Korean logistics sector demonstrates positive impact of green awareness and green logistics practice on logistics performance (Choi, 2012).

The creation of organisational structures exclusively dedicated to the management of social-environmental sustainability in companies is a recent phenomenon. In

research based on the sustainability reports of 250 companies listed in the "Fortune Global" in 2004, it was found that less than one-third of them had defined at least some type of structure for sustainability management and only 28.8% of them had created a department of sustainability. The creation of departments of sustainability was more frequently seen in European (40.5%) and Japanese (24.2%) companies than it was in US (11.4%) (Kolk, 2010).

European researchers analysed how 18 companies in Holland implemented the concepts of sustainability and corporate social responsibility between 1998 and 2003. These companies participated in the Dutch program for sustainable development. In order to be initially familiar with the sustainability theme within their contexts, the companies studied gathered information by means of formal and informal internal meetings, internal measurements, external experts, and experience exchanges with other companies (Heijden et al., 2010).

Internal change agents played a key role in adapting the general concept of sustainability to a language suitable to a company's routine work. This involved a person

or a small group of individuals who continuously tried to make the sustainability ideas work within practical contexts by means of interactions with various other components of the organisation. In addition, these agents created and directed the organisational changes needed to implement sustainability by developing activities and engaging people in the process (Heijden et al., 2010).

As one of the means of implementation, 39% of the companies studied had created an organisational structure for sustainability. The employees in these organisational structures defined the mission, policies, programs, and activities (Heijden et al., 2010).

Heijden et al. (2010) concluded that informal interactions are more important for implementing sustainability in the companies, which had not been indicated by previous theoretical studies. As these informal interactions are mostly stimulated by change agents, the researchers recommended that further studies are needed to determine the role of these agents as well as their actions in the implementation process.

Based on such a recommendation for further studies, the present study describes in detail the successive actions of the small group of change agents (and their respective informal networks) that legitimated the creation of a department of sustainability in an US multinational company's subsidiary in Brazil.

INNOVATION AND ISOMORPHISM

Significant organisational changes can be caused by innovations or by isomorphic pressures. While isomorphic pressures represent environmental factors influencing the company on one hand, organisational innovation is characterised by an autonomic initiative emerging from inside the company on the other hand.

Innovation, according to the Oslo Guidelines [Organisation for Economic Co-operation and Development, (OECD)], is a new or significantly improved implementation. With regard to the degree of novelty, the minimum criterion for considering an implementation as innovation is whether it is new or significantly improved for the company in question. That is, innovation may be a pioneering and original creation by a company or even an imitation of a solution created by another organisation that is then replicated in the company ("new for the company") (OECD, 2005).

The Oslo Guidelines define four types of innovation, namely "product innovation", "process innovation", "marketing innovation", and "organisational innovation". Organisational innovation is understood as the implementation of a new organisational method in business practices, workplace organisation, or external relationships in order to improve the company's performance. In addition, organisational innovation should be a method that has never before been used by the company and the result of a strategic decision made by high-level

managers (OECD, 2005).

Isomorphism, however, is conceptualised as an approach in which the structures, processes, and behaviours of different organisations become gradually similar to each other. In the initial development stage of a given organisational field, companies have a great variety of models and structures. However, as this organisational field becomes established, there is a trend towards homogenisation (DiMaggio et al., 2005).

The imitation process frequently occurs even when there is no evidence that such an imitation in fact improves the company's performance. In the initial phase, the first ones adopting a given organisational innovation seek to improve performance. Nevertheless, as the innovation becomes diffused other organisations begin to adopt the dominant innovation more because of its legitimacy than because of the performance improvement it provides (DiMaggio et al., 2005).

There are three mechanisms of organisational isomorphic changes (DiMaggio et al., 2005), namely coercive isomorphism, which results from the authority on a political basis and from the search for legitimacy, mimetic isomorphism, which results from standardised responses to uncertainties, and normative isomorphism, which results from training and other social instruction aimed at professionalisation.

Coercive isomorphism occurs when formal or informal pressure is exerted on the organisation by some type of authority. With regard to large multinational companies, it is common that their subsidiaries are subject to these standardised mechanisms (DiMaggio et al., 2005).

By contrast, mimetic processes result from the behaviour towards uncertainties rather than from that towards authority. In fact, companies seek to overcome such uncertainties by adopting the models used by other organisations, either because of their limited understanding of the new technologies or because of their ambiguous goals. The advantage of this approach is the possibility to obtain viable solutions quickly and at low cost (DiMaggio et al., 2005).

In general, companies adopt as models those organisations they believe have more legitimacy or have been more successful. When its goals are ambiguous, a company is more likely to follow those organisations known as models of success: "Therefore, the participants think it's easier to imitate other organisations rather than making decisions based on systematic analyses of the goals, since such analyses might be hard to perform and cause disaggregation" (DiMaggio et al., 2005).

Finally, the third way of homogenisation is achieved through normative pressures, mainly those aimed at professionalisation. In fact, the members of a professional activity seek to define their work methods according to their professions in order to establish a common knowledge base, thus legitimating the profession. In general, normative isomorphism occurs by means of both professional courses involving formal

education and relationship networks of the same professionals, either outside the company through professional associations or inside the company through a mechanism to diffuse new models quickly (DiMaggio et al., 2005).

INTRA-ORGANISATIONAL NETWORKS

Generically, a relationship network is a set of people or organisations interconnected through relations. There are three types of relationship networks, namely inter-organisational networks, which involve relationships between companies and organisations, intra-organisation networks, which involve relationships between individuals within the same organisation for information exchange, counselling, political influence, or simply for friendship, and interpersonal networks, which involve relationships between individuals that are not necessarily within the same organisation (Lazzarini, 2008).

Internal networks play an integrating role in successful innovation projects by forming relationships between the development, production, and marketing areas, thus favouring the success of the innovation process. By contrast, unsuccessful innovation projects are often associated with a lack of internal communication within the organisation and a lack of integration between these three functional areas (Freeman, 1991).

Allowing high-level managers to convey information efficiently is another significant role of internal networks. Using a sample of 73 high-tech US companies, one study statistically validated the positive relationship between the size of the internal network of executives and sales growth, with network size measured as the number of contacts in the network. By contrast, the spectrum of internal networks of executives showed a relationship with the financial returns of stocks in the companies studied, with network spectrum referring to the variety of contacts an executive has as measured by the number of different groups or categories of players within the network (Collins and Clark, 2003).

In addition, dense networks (that is, those with a great number of connections between players) favour the good performance of non-routine tasks that require flexibility and adaptation (Pfeffer, 1993).

Based on a study of 24 business units in a petrochemical company and 35 units in a food company in the US, Tsai (2001) found that an organisational unit can generate more innovations and improve performance if it is located in a central position in the organisation's internal networks, because this allows it to obtain new knowledge from other organisational units more quickly. In another study of a large multinational company consisting of 36 business units and dealing with food and beverages, the same author found that tacit knowledge exchange among participants occurred in high-trust networks (Tsai, 2000).

The study of intra-organisational networks has also

been used to analyse the shared meaning attributed to organisational change within the context of a company undergoing privatisation (Bastos et al., 2007). In a large petrochemical company in Brazil, relationships between friendship, trust, and information were identified among 52 employees of the company as well as external personnel working in the maintenance sector. This study confirmed the theories that a small group of individuals who choose to form an informal network with each other share the meanings they attribute to organisational changes more intensively.

A survey of the internal communication networks of the managers of a metal-mechanic sector company located in Brazil found that individuals who seek to contact different groups within the company are more likely to be asked to create communication relationships compared with other individuals (Santos et al., 2011).

Krackhardt et al. (1993) developed a methodology to map informal networks within corporations in order to describe the relationships the employees form regardless of the functional and hierarchical boundaries defined by the organisation, showing that informal networks have both the power and the influence to make it difficult to implement official initiatives as well as to meet their objectives quickly. Such mapping techniques were also used to obtain support from informal networks in situations involving organisational innovation, such as increasing team efficacy during participative strategic planning.

For the authors, there are three types of informal networks. The counselling network consists of individuals offering advice to employees so that they can meet their tasks more quickly. The trust network consists of individuals who are sought by employees to share politically sensitive information. Finally, the communication network consists of individuals with whom employees often talk about work themes.

Kilduff et al. (2008) studied friendships within four organisations: the relationships between 21 managers of a computer hardware company, relationships between 31 officers of a government agency, relationships between 31 operational workers of a small company, and relationships between 33 employees of a distribution company. The authors found that the individuals from the four organisations tend to perceive friendship groups as being larger than they really are in their respective informal networks. Therefore, the configurations of the informal friendship networks as perceived by members are very different from the actual configurations mapped by the researchers.

The concept of intra-organisational networks is different from that of organisational structure. While the latter focuses on the definition of authority, posts, tasks, and official communication channels (Vasconcellos et al., 2003), the former addresses the more subtle aspects of a company's life (e.g. personal trust relationships among individuals) in order to integrate the activities of different organisational areas, speed up access to information,

and facilitate the exchange of intangible resources. In this way, the idea of intra-organisational networks is used to describe mechanisms that produce previously undefined integration activities and communication channels in order to make the knowledge flow easier. Despite being conceptually different from each other, there can be synergies between intra-organisational networks and formal organisational structures.

In the context of the strategic decisions made at the upper hierarchical levels of two German multinational companies (one operating in the chemical sector and the other in the oil sector), the managers were found to have significantly more informal vertical relationships than horizontal ones in the formal organisational structure (Rank, 2008). In a Dutch company, counselling relationships were mapped within the informal networks of 57 employees, with hierarchical positions having no influence on the chance of an individual receiving or providing advice (Agneessens and Wittek, 2011).

In the German company Siemens, internal networks have been created to increase the flow of knowledge for solving problems. These internal networks connect specialists from different organisational units who are interested in generating and conveying knowledge for innovations. Siemens' internal networks rely on shared values to create suitable behaviours, thus continuously matching the objectives with strategic corporate changes (Frost and Schoen, 2004).

Buchel and Raub (2002) conducted in-depth interviews with executives of 16 companies who took part in the Geneva Knowledge Forum, where a group of multinational companies meet several times a year to discuss the most recent trends in knowledge management.

Internal networks formed to identify business opportunities and those formed to stimulate the transfer of best practices are internal network models, which contribute effectively to the value creation within the company. To understand how internal networks and official organisational structures can synergistically interact with each other, Buchel and Raub (2002) offered the following conceptual perspective.

As networks are, at least partially, based on self-selection, mutual support, and multi-directed exchanges, they are more difficult to conduct than are more traditional organisational structures. By contrast, this does not mean that these networks cannot benefit from the policies established by managers. Managers can make the members of the network aware of strategically important issues, facilitate the meeting of members, and enhance the results obtained by the knowledge networks (Buchel and Raub, 2002).

METHODOLOGY AND DATA GATHERING

The objective of the present research is to understand how an internal network has contributed to the creation of a department of sustainability.

A case study methodology is suitable for this purpose because it explains the interaction between several organisation contexts throughout the process of the creation of the department of sustainability by means of the contributions from internal networks. This is possible because such a methodology enables certain relationships to be discovered, which otherwise would not happen by comparing theories only (Campomar, 1991).

For Eisenhardt and Kathleen (1989), the case study is useful to obtain an understanding of the dynamics of concrete contexts so that available theories can be confirmed, extended, or detailed. Still, according to Yin (2005), the case study methodology is also useful for studies seeking answers to "how" and "why" questions, when emphasis is placed on real-life phenomena.

The case study analysed herein addresses the development of an internal network that contributed to the creation of the department of sustainability in a Brazilian subsidiary of a traditional and innovative multinational US company.

From an environmental point of view, the company has most of its technologies grounded in synthetic, petrochemical, and non-renewable substances, besides traditionally having production processes that rely on the heavy use of solvents. In order to reduce the environmental impacts, the company was one of the pioneers of pollution prevention programs, which have been operating for more than three decades and which are cited in many textbooks.

The company is also in the Dow Jones sustainability index, presenting a very good performance in the reduction of both solvent use and the emission of volatile organic compounds. With regard to global warming, the company has signed the greenhouse gas protocol, reducing global emissions by 77% between 1990 and 2009. In addition to reducing emissions in its operations, the company has created interesting products that can reduce the environmental impact of its clients.

The company's Brazilian subsidiary produces and trades approximately 1000 basic products, from which 25,000 items are derived, with 70% of these products manufactured in Brazil. Following the tradition of innovation at head office, the Brazilian subsidiary has a consistent history of inventions (patents), conducting a great number of projects in the past 10 years with the aim of replacing organic solvents with water-based solvents in order to reduce not only the costs but also the emissions of volatile organic compounds. In addition, initiatives have been carried out to eliminate toxic substances, such as heavy metals.

The company was chosen as the case because data sources could be directly observed (Yin, 2005), since one of the authors of the present study had worked in the company as a sustainability specialist. Participative direct observation allows data to be gathered according to the point of view of the individual who worked "inside" the organisation. Such an internal point of view enables the phenomenon in question to be accurately described (Yin, 2005).

The validity of the constructs resulting from the conclusions drawn herein is grounded not only in the use of several data sources but also in the use of participative direct observation, project reports and interviews with the participants of the internal network. In addition, the quality of the relationships found between organisational factors was achieved by using theoretical models already established by the relational view (Tsai, 2000; Collins and Clark, 2003; Buchel and Raub, 2002; Krackhardt et al., 1993).

CREATION OF THE DEPARTMENT OF SUSTAINABILITY

The company's department of sustainability was officially established by the director of the supply chain in the third trimester of 2008. The department had two employees: the environment, health, and security manager, who became sustainability manager too, and the consultant of Six Sigma (a project management methodology aimed at improving business processes by using

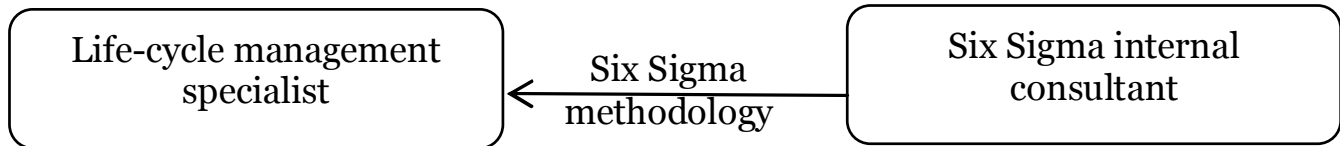


Figure 1. Phase 1 involves the implementation of life-cycle management in the new products development. Source: own elaboration.

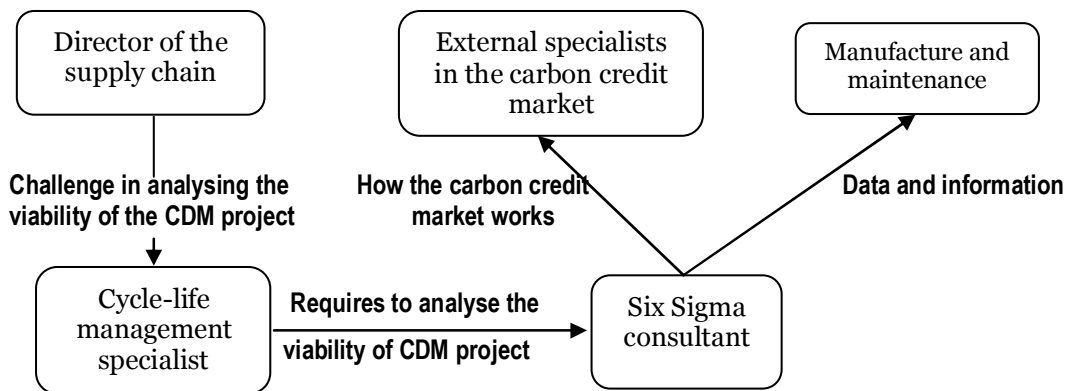


Figure 2. Phase 2 involves the informal study of the viability of adopting CDM projects. Source: own elaboration.

statistics), who was internally transferred to occupy the post of sustainability specialist.

Internal prerequisites for this formalisation of the organisational structure for sustainability (that is, the development of competencies and legitimation) were developed through activities performed by an informal network of professionals, who were motivated by the potential synergies among sustainability, business, and career.

The informal network contributing to the creation of the department of sustainability in the company had the following four phases of development.

The first phase (Figure 1) involved a formal project, which resulted in the consolidation of an informal relationship guided by the sharing of values favouring environmental sustainability. The specialist in Life-Cycle Management (environmental management methodology derived from Life Cycle Assessment) invited the Six Sigma internal consultant in order to diffuse the use of life-cycle management in the process of the company's new products development. The life-cycle management specialist has a doctorate in life-cycle analysis, whereas the Six Sigma internal consultant worked in social-environmental non-governmental organizations (NGOs) and has a doctorate in the diffusion of pollution prevention, besides also having a second doctorate in innovation for sustainability.

The project not only met the objectives but also resulted in the friendship between these two professionals, who started having lunch and coffee together more frequently to talk about environmental sustainability.

In the second phase of the formation of this informal network (Figure 2), the life-cycle management specialist asked the Six Sigma internal consultant to carry out a viability study in order to know whether the company should perform clean development mechanism (CDM) projects to obtain carbon credits.

The company's director of the supply chain asked the environmental department to participate in the present study.

However, such analysis was also conducted through an informal network because this type of analysis was not part of the tasks attributed to the Six Sigma internal consultant. The director of the supply chain was also very motivated by themes related to environmental sustainability. He had also participated in chamber of commerce meetings that addressed environmental issues and collaborated with authors of books and articles on sustainability.

The Six Sigma internal consultant guided the data-gathering process in the departments of manufacture and maintenance, consulted specialists in the carbon credit market, and defined the analysis approach for the viability study. Based on the results obtained, the company was recommended not to pursue a CDM project because the carbon credits obtained from the elimination of organic solvents would not be enough to cover the project expenses nor to yield financial gain to compensate the time spent by the company's professionals on it.

In fact, the majority of CDM projects in Brazil at that time were based on gases such as methane and nitrous oxide, which have a global-warming potential hundreds of times higher than that of carbon dioxide, which results from the use of organic solvents. In addition, no CDM project for organic solvents had been conducted and approved by UN agencies despite being contemplated. Therefore, the costs of adopting a CDM project for organic solvents would be substantially higher because of the expenses involved in creating a new CDM methodology.

According to the results of the viability study, the recommendations were that the company should not reduce the use of organic solvents. Nevertheless, the viability study suggested giving visibility to the innovations of processes and products with environmental contributions by organising a specific event for this purpose involving clients and opinion makers.

In the third phase of the informal network formation (Figure 3), the life-cycle management specialist put the Six Sigma internal consultant in contact with the environment, health, and security manager for Latin America, who also intended to organise an event

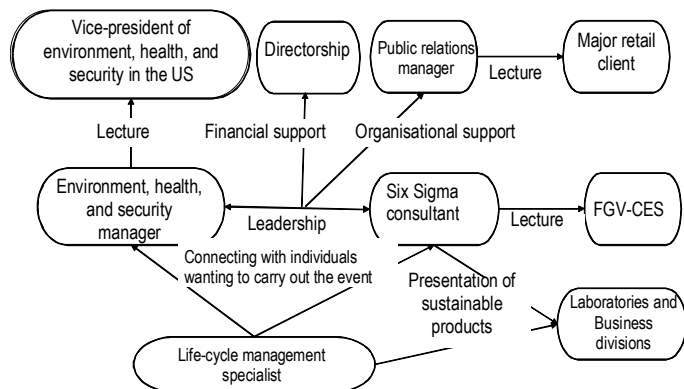


Figure 3. Phase 3 involves carrying out an event on sustainability. Source: own elaboration.



Figure 4. Phase 4 involves introducing an environmentally sustainable product. Source: own elaboration.

on sustainability. This event was aimed to coincide with the visit of the vice-president of environment, health, and security from the company’s head office in the US. In the course of a few days, the environment, health, and security manager and the Six Sigma internal consultant, by means of brief informal talks, obtained financial and institutional support from the company’s directors for the idea of carrying out an event on sustainability.

The environment, health, and security manager was full of enthusiasm about the theme of sustainability after attending a presentation by Daniel Esty, Professor of Sustainability at Yale University and co-author of the book *Green to Gold*, at the company’s head office in the US (Esty and Winston, 2006). In addition, this manager’s personal values are based on humanitarian activities. On Sundays, for example, he worked voluntarily as a “clown doctor” at a hospital in order to entertain children suffering from cancer.

In order to organise the event, a team was formed by the environment, health, and security manager, the Six Sigma internal consultant, the life-cycle management specialist, the environment manager, and the public relations manager, who had great experience in carrying out events and who worked for an institute arranging social responsibility activities.

The event relied on the presence of the company’s vice-president of environment, health, and security, who gave the initial lecture, followed by lectures given by the sustainability manager of one of the major retail companies in the world and the researcher of the FGV Centre of Sustainability Studies. The event also included

presentations and expositions of environmentally sustainable products and processes from several of the company’s divisions and respective laboratories. Various clients and suppliers also attended the event, which was reported by the media.

Invited to close the event, the company’s president spoke about the company’s need to assume a position of leadership for environmentally sustainable innovations. Thus, the theme on sustainability attracted more attention among the directors and managers of the company.

Finally, the fourth phase of the formation of relationship networks contributing to the creation of the department of sustainability (Figure 4) consisted of an informal voluntary project aimed at introducing into the Brazilian market the main sustainable product innovation from the company’s head office. This is a product for fixed fire-fighting systems that reduces the emissions of greenhouse gases by 99% compared with conventional products in the market. The company’s researchers created a molecule that replaces the HFC (a substance with a global-warming potential 3,000 times higher than that of carbon gas) for fixed fire-fighting systems to protect investments in electronic equipment. Despite good sales in the US, Europe, and the Middle East, however, the product was not yielding financial returns for the Brazilian subsidiary.

The Six Sigma internal consultant took the initiative to interview the managers of the company’s subsidiaries in Spain and the Persian Gulf, who had achieved success with the innovative product diffusion. The internal consultant also interviewed the director of a company in Brazil that imports the substance that replaces the HFC in the fire-fighting systems.

The financing manager became interested in the business opportunity and presented her conclusions to the company’s director and the marketing specialist of the respective business divisions, who then elaborated strategies to introduce the innovative product into Brazilian market.

With the help of the international trade specialist, new management accounting procedures were implemented between subsidiaries and head office, thus enabling the Brazilian subsidiary to obtain financial returns from 2008 with sales through distributors and specifiers, who imported the new substance from the US head-office to modify the fire-fighting systems in Brazil.

Both the division’s financing manager and its international trade specialist had been members of the Six Sigma internal consultant’s informal networks, with the former working as a manager of Six Sigma projects and the latter participating in a Six Sigma project together with the internal consultant.

In summary, the informal networks contributing to the creation of the department of sustainability in the company studied passed through four phases. In the first phase, the values favouring environmental sustainability were shared between the life-cycle management specialist and Six Sigma internal consultant. The second phase involved the generation of the idea of carrying out an event on sustainability in order to divulge environmentally sustainable products and processes innovations. In the third phase, interest in organisational sustainability increased among the company’s directors by means of the event led by the environment, health, and security manager for Latin America and the Six Sigma internal consultant. Finally, financial gains were achieved by the Brazilian subsidiary by trading an environmentally sustainable product.

These informal relationship networks defined the allocation of individuals to the formal organisational structure of the newly created department of sustainability (Figure 5): the environment, health, and security manager for Latin America, who acted as sustainability manager because he had good communication with both high-level directors at head office in the US and directors in Brazil, and the Six Sigma internal consultant, who was the new sustainability specialist.

An important fact is that the informal network contributing to the

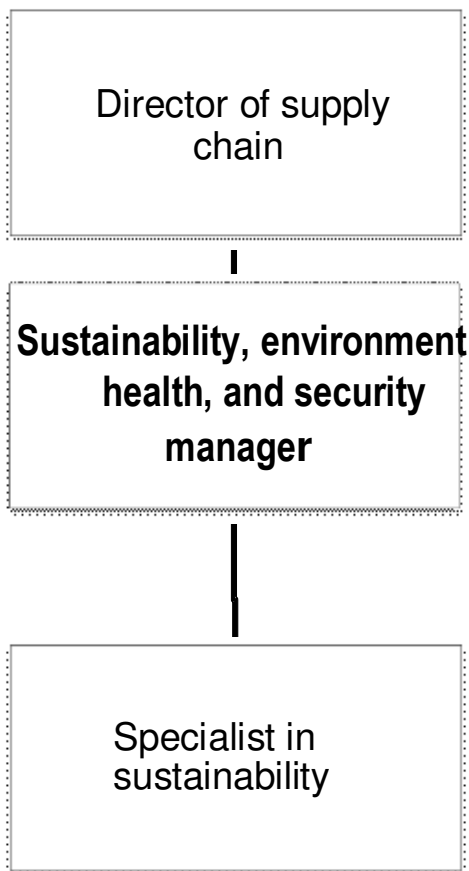


Figure 5. Organogram of the formal organisational structure of the newly created department of sustainability. Source: own elaboration.

creation of the new department also played a decisive role in the definition of the operational approach of the department of sustainability. That is, research was conducted in order to ground the decision processes as well as the new work processes so that the company could benefit from the social-environmental business opportunities and minimise the social-environmental risks.

After being established, the department of sustainability has defined its activities as follows: to minimise social and environmental risks in the supply chain; to contribute to the marketing and technical service teams by providing arguments for the diffusion of products with high-environmental performance; to contribute to the viability analysis of projects for recycling final products and product packages; to lead a project for the elaboration of a sustainability report model based on Global Reporting Initiative indicators; to extend relationship networks to sustainability specialists from companies, universities, and government agencies as well as to elaborate a catalogue of new environmentally sustainable products for the Brazilian subsidiary.

RESULTS AND DISCUSSION

The concept of the isomorphism (DiMaggio et al., 2005) of institutional theory (coercive, mimetic, and normative

isomorphism) explains, at least partially, the creation of the department of sustainability in the company studied.

Coercive isomorphism results from the formal or informal pressures exerted by organisations through their authority or domains, and in the case of large multinational companies, this type of mimetic isomorphism is common, with their subsidiaries adopting the mechanisms standardised by their head offices (DiMaggio et al., 2005).

Nevertheless, in the case of the Brazilian subsidiary studied, coercive isomorphism was not a decisive mechanism for creating the department of sustainability. This is because when it was created there was no such department in the company's head office in the US, except a regional sustainability unit in the English subsidiary and a divisional sustainability department in the US business unit. However, the creation of the department of sustainability in Brazil was independent because neither of the departments of sustainability cited above had been used to define the organisational processes and structure of the Brazilian department of sustainability.

The mechanism of coercive isomorphism was used to increase concordance among high-level managers so that the new department could be created. This occurred in the event on sustainability with the sustainability manager of a major retail client, who was invited to speak on the theme. In fact, her speech increased the perception that if the client, the world's leading retail company, led sustainability initiatives in the retail market, the analysed company would also have the opportunity to do so in the market in which it operates.

By contrast, mimetic processes result from the behaviour towards uncertainties, including the intent to create viable solutions at low cost and quickly, rather than from authority (DiMaggio et al., 2005). Mimetic isomorphism occurred during the legitimation process prior to the creation of the department of sustainability by means of financial results. Such financial results were achieved by trading the environmental innovation for fixed fire-fighting systems. The mimetic process consisted of imitating solutions that other subsidiaries (Spain and the Persian Gulf) had adopted in order to trade the product in Brazil.

Finally, normative isomorphism is created by means of the standardisation of work methods. Because the emergence of sustainability professionals in the companies is still a recent phenomenon, no normative patterns were identified in this professional area.

Therefore, the concepts of coercive and mimetic isomorphism help explain how the department of sustainability was legitimated in the company studied. Coercive isomorphism was an important element in the legitimation of the idea of creating a department of sustainability among decision-makers, while mimetic isomorphism was also important to make the trade of environmentally sustainable products viable, thus

demonstrating that sustainability management can increase revenue.

Nevertheless, creating the department of sustainability was not the result of the isomorphism itself, despite involving characteristics of organisational innovation (OECD, 2005), because the new work structure aimed at improving the company's performance and it was officialised by the director of the supply chain.

In addition, the professionals who participated in the creation of the department of sustainability did it not because of internal orders or regulatory or market impositions, but because they had the intention, autonomy, and proactivity to do so; attributes that characterise an innovative organisation (Barbieri, 2007).

Conclusion

The concept of "intra-organisational networks" explains how organisational innovation was created to formalise the department of sustainability in the following ways:

- a. There was a heavy flow of communication and informal counselling (Krackhardt et al., 1993; Santos et al., 2011; Heijden et al., 2010) among the professionals of different departments that enabled the quick exchange of information across the organisation (Collins and Clark, 2003), the exchange of tacit knowledge, and the integration of multifunctional competencies (Tsai, 2000). All this enabled the study of the viability of a project for carbon credit trading to be undertaken, the event on sustainability to be carried out, and financial returns to be generated by trading a fire-fighting product that generated no greenhouse gas emissions.
- b. Trust relationships (Krackhardt et al., 1993) were formed to perform joint activities voluntarily and to risk a prior professional position by recommending the creation of a new department with the reallocation of the Six Sigma internal consultant;
- c. Internal networks were spontaneously formed by means of self-management (Buchel and Raub, 2002) to carry out the event on sustainability and to identify efficient practices to trade the fire-fighting product. In addition, the study of the viability of a project for carbon credit trading was stimulated by the directorship through internal networks (Buchel and Raub, 2002).

Therefore, these intra-organisational networks decisively contributed to the legitimation process of the idea of creating the company's first department of sustainability in Latin America. Such legitimation was consolidated by the financial results achieved with the trade of the environmentally sustainable product and the event on sustainability, which evidenced the great commitment by the decision-makers on the issue.

Another contribution of the intra-organisational networks to the new department of sustainability was to guide the work approach, namely the execution of studies

and research to support the business decisions in order to better take advantage of the opportunities and to decrease the social-environmental risks for the company.

The contribution of the present case study to the relational view of organisational theory is related to the role of intra-organisational networks in the formal decision-making process. Buchel and Raub (2002) described the measures by which the company's formal management can influence the internal networks, although this is difficult to do because of the selection autonomy and multidirectional exchanges among members.

However, the results found in the present case study show that it is possible that not only management can influence the internal networks, but that the inverse can also occur. In the company studied, an informal network was formed among professionals who viewed the synergy between sustainability and the company's business, which resulted in an event on sustainability in which a major retail company presented its initiatives on sustainability management. This event led the company's directors to support the creation of the department of sustainability. Therefore, internal networks motivated by sustainability can be a way of stimulating bottom-up organisational changes that favour social and environmental performance in the company.

This research may provide insights for future researches to quantitatively validate our findings in a broad sample of companies that created organizational structures dedicated to sustainability management.

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