



# TAKING ACCOUNT OF THE EMPLOYEES TACIT KNOWLEDGE TO GREEN WORK PRACTICES

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## ABSTRACT

**Purpose:** The purpose of this applied research is to green employees work practices in the field of transportation and supply chain.

**Design/methodology/approach:** This research is based on 30 qualitative interviews with researchers specialists in the field, training specialists, companies of transportation and supply chain.

**Findings:** 'Values training' are sometimes provided to green work practices. Those 'values training' have to be linked to employees' every day practices. The tacit knowledge of the learners must be taken into account in the changes of employees own work organisations.

**Originality/value:** Sustainable development is about values. Promoting a greener behaviour implies promoting new values. But, in most of the companies, this is considered for the sole benefit of the enterprise, without including the initiatives, ideas and feelings of its employees. This paper aims to defend a greening process that is no longer solely a top-down process, but also a bottom-up one.

**Keywords:** transportation; logistics; work practices; informal and tacit knowledge; environmental management.

## INTRODUCTION

Transportation and supply generates significant CO<sub>2</sub> emissions but surprisingly pays little attention to sustainable development. While many companies in other fields have set up corporate strategies to mitigate their environmental impact, transportation and supply chain firms are still lagging behind. Trade unions, business leaders and workers in this area are often reluctant to change their work organisation to green their activities. Yet, environmental change is a major societal challenge, particularly for firms which generate pollution.

The purpose of this applied research is therefore to raise awareness of environmental issues in the French field of freight transportation and logistics. Initially, we analysed transport and supply chain companies committed to best environmental practices to understand the way sustainable development had changed their work organisation. We then endeavoured to disseminate this awareness of environmental issues and, as rapidly as possible, implement a 'sustainable work organisation' in the field. This article will present the first step of this research, namely the work organisation analysis of a few large companies involved in environmental change (freight transportation, supply chain, courier service and manufacturing logistics).

Our analysis of proactive companies' work organisation questions the way transportation and logistics firms look at greening their employees' work practices and inquires as to the means are used. What kind of training programmes do they plan? What type of organisational management supports their action?

We will base our thought processes on the body of research on *Environmental Management*. We interviewed two types of companies involved in freight transportation and sustainable development. On the one hand, there were large firms which have generally set up an *Environmental Management System* (EMS) (with audits, reports and units dedicated to the company's environmental strategy). On the other hand, we looked into small cooperatives and associations promoting green urban deliveries (with electric bicycles and tricycles, electric trucks or cars for deliveries) or working on pooling solutions for short supply circuit deliveries. The French Small and Medium-sized Enterprises (SMEs) in freight transportation lend very little importance to improving their environmental performance. Yet, SMEs are the biggest player in the French freight transportation field, but they are not representative of the environmental proactive approach in this sector.

This is why we chose to present an overview on the EMSs developed by large transport and supply chain companies. We looked at their achievements and their failures. We focused on employees' training programmes induced by those EMS. We noticed that there were two kinds of training programmes related to environmental issues: a body of them can be called 'values training' and the other body was a sort of 'workplace training'. 'Values training' aims to provide sustainable and environmental awareness to the managerial staff mainly, but not exclusively. In some cases, employees were quite reluctant to take part in these compulsory 'values training' sessions. We will analyse this resistance within the theoretical framework of *Environmental Citizenship Behaviour* related to *Top Management* thinking.

## ENVIRONMENTAL MANAGEMENT

Since the 1990s, many multinational companies "have been voluntarily creating programmes for the environment by directly addressing the potential impact of their factories, facilities and operation on the environment" (Duarte-Teles et al., 2015). In France, this integration of the environmental perspective in the industrial sector started to appear in the 1970s (Boullet, 2006). The concept of

'environment' emerged at that time and manufacturers tried to conform to public regulations. Furthermore, companies were concerned by the accidents and explosions in their factories and attempted to reduce them. As a second step, some companies created their own environmental units like Elf Aquitaine in 1982. French companies' communication on this topic was virtually non-existent in the 1960s, started to appear in the 1970s and became widespread in the 1980s (Boullet, 2006). This communication took a variety of forms: visits to industrial locations, presentations in congresses and debates, articles in trade press, internal communication, annual reports, etc. Since the 1980s, French companies' communication on environmental issues started to be integrated in a more offensive strategic approach. It could be a way to greenwash the company, but this communication could no longer exist without tangible actions (Boullet, 2006).

In the 1990s, and even more so in the 2000s, large companies set up EMS in order to implement tangible actions. These EMS were led by the management team, and generally from environmental units. Most of time, they were structured and organised on the basis of performance reports and sometimes external audits. "In most cases environmentally proactive companies identify and quantify their environmental liabilities from past operations and draw up plans to minimise them" (Duarte-Teles et al., 2015). Why do firms invest in EMS? Numerous consultants and scholars have noticed the commercial benefits in promoting environmental responsibility: it can be a way to improve the company's image (Duarte-Teles et al., 2015); it can also lead to competitive advantages (Murillo-Luna et al., 2011); and mostly "the organisational ability to manage corporate environmental performance is [considered] as a strategic issue for companies" (Teles and Freire de Sousa, 2014). However, Teles and Freire de Sousa (2014) noticed that some scholars and consultants questioned environmental advocates' optimism.

Duarte-Teles et al. (2015) and Murillo-Luna et al. (2011) identified the typical profile of companies implementing EMS: they are generally internationally-established large companies. Duarte-Teles et al. (2015) indicated that "large companies manufacturers of finished products" and firms from the Chemical sector have, in their view, the "greatest interest in adopting environmental practices". On the contrary, Corporate Social Responsibility is not widely used in Brazilian textile industries.

Research on *Environmental Management* has highlighted the central role of managers in promoting new environmental organisational and work practices. According to Boiral et al. (2014, p.363), "corporate greening depends to a large extent on the commitment and leadership of top managers who are in a position to implement policies and practices that can improve environmental performance". In this way, "environmental values, beliefs and attitudes of a manager [are considered as very] important for [the] proactive environmental activities" of firms (Singh et al., 2014). This importance of top management in corporate greening most often implies a strong top-down regulatory approach (Mostert, 2015). Mostert (2015) emphasised the fact that environmental management is rarely collaborative.

Yet, studies on *Environmental Management* have identified internal and external drivers for adopting proactive environmental strategies. "Government regulation, societal and market factors" represent the external drivers, whereas "employees, ownership and firms' environmental strategy" make up the internal drivers (Singh et al., 2014, p.469). Firms generally consider internal drivers more important in shifting their environmental strategy than external drivers (Singh et al., 2014).

Murillo-Luna et al. (2011, p.147) offered an analysis of external and internal barriers to adopting environmental management practices. According to them, an internal barrier could be easily lifted: "low employee involvement in decision making". This low involvement in decision making is, in our view, due to the very strong top-down approach in EMS.

In this article, we will argue that the emphasis on top-down management in EMS can be counterproductive, particularly in motivating employees' participation in the EMS process and results. We will advocate the importance of taking into account the psychological process of employees' adherence to environmental values. To do so, we will highlight the central role of the theory of *Environmental Citizenship Behaviour*.

## ENVIRONMENTAL CITIZENSHIP BEHAVIOUR AND TOP MANAGEMENT

### *Top management and values*

As mentioned above, Boiral et al. (2014, p.364) highlighted the major role of senior managers in disseminating environmental concerns in companies, "whatever the organisation's size and [its] environmental commitment". Literature has widely assessed the relation between the environmental leadership role, motivations and values (Boiral et al., 2014, p.363). However, we know very little about the managers' value system and its determining factors. Boiral et al. (2014, p.364) explored "how the various stages of consciousness development of top managers can influence [...] their abilities and commitment to environmental leadership". They conclude that post-conventional managers are more likely to be environmental leaders.

Egri and Herman (2000) defined environmental leadership as "the ability to influence individuals and mobilise organisations to realise a vision of long-term ecological sustainability". It is significant that the environmental leadership has a positive impact on pollution control, corporate image, employee motivation and productivity. Boiral et al. (2014) showed in their research that managers' environmental leadership is inextricably linked to their level of consciousness development. This result reminds us of the importance of managers' values in the process of greening the work organisation.

Influencing managers' values appears to be a key action in promoting a green organisation of the workplace. Most proactive firms ask their

"leaders [...] to move from the Dominant Social Paradigm (DSP), characterized by overconfidence in industrial advancement, economic growth and technological process, to a New Environmental Paradigm (NEP) characterised by an emphasis on environmental protection and recognition of the limitations of industrial growth due to natural resources depletion" (Boiral et al., 2014, p.364).

The 'values training', observed in EMS actions during our fieldwork, aims to influence managers' values in order to turn them into environmental leaders.

### *Tacit knowledge, organisational citizenship behaviour and values*

Boiral (2009) evaluated green organisations and practices in the workplace using the theoretical framework of Organisational Citizenship Behaviour (OCB). OCB is usually defined as "voluntary initiatives not explicitly required in the definition of job responsibilities that contribute to the improvement of organisational functioning" (Boiral, 2009, p.222). Environmental management in companies has, for some time, followed a very technical approach consisting of implementing control systems (Boiral, 2009). Since the 1990s, the importance of human behaviour to mitigate pollution has taken pride and place. Employees' daily activities are now considered just as important as technical solutions. Furthermore, employee involvement in environmental management is highly desirable.

The ISO 14001 standard implies this association of prevention, integration and employee involvement. Yet, this standard remains very formal and controlling. Boiral (2009) showed that a lot of informal, voluntary and discretionary practices, comparable to OCB, are hugely useful to improve the environmental impact of companies. Those informal actions may consist of

“using ecological means of transport, taking part in selective trash collection programmes, developing responsible shopping and consumption habits, not wasting water and other natural resources” etc. (Boiral, 2009).

Due to the complexity and diversity of the environmental issue, EMS cannot take into account all desirable behaviour to achieve a green organisation. Thus, greening the corporation should entail and promote those informal actions, similar to OCB. In the OCB, tacit knowledge is the key. In this way, “environmental OCBs [help] promote sharing and taking into account employees' tacit knowledge” (Boiral, 2009).

Top Management induced by EMSs totally conflicts an OCB approach. Nevertheless, we will argue that Environmental Management can be upgraded taking into account lessons learned from environmental OCB considerations.

### *The managers' role in promoting employees' tacit knowledge*

Ones and Dilchert (2012) indicate that only 13–29% of employee green actions are related to manager or EMS assignments. In Raineri and Paillé's (2015) view however, managers are in a great position to sustain formal and informal environmental actions in the workplace. “On the one hand, they [...] consolidate the official design of the organisation by enforcing authority; on the other hand they [...] mobilise human resources in spontaneous cooperation” (Raineri and Paillé, 2015). Thus, managers may motivate employee green behaviour

“by voluntary sharing information regarding ecological issues, enhancing employee knowledge and understanding, valuing feedback, and involving people in problem solving by encouraging environmental suggestions” (Raineri and Paillé, 2015).

In so doing, managers could promote employee environmental tacit knowledge. We will argue that this kind of management could be very useful to green the workplace.

## **RESEARCH QUESTIONS**

This paper aims to question EMS efficiency in a low concern sector – specifically the freight transportation and logistics field. We examined employees' training programmes in proactive transportation and logistics companies; and we noticed some difficulties in their implementation. We shall endeavour to answer some of those questions:

- How can the transportation and supply chain promote new green practices and organisation in the workplace?
- What are the implementation conditions?
- Why should companies encourage employee participation in this process?

## METHODOLOGY

This research has two distinct steps: the first step consists of an assessment of the situation. Based on 30 interviews with research specialists in the field, training specialists, transportation and supply chain companies; a field observation in a supply chain work and training area ('campus de la logistique') and our involvement in a local employment skills planning committee, we managed to identify the characteristics of this field and the reason for the low level of concern for sustainable development.

The 30 qualitative interviews were conducted in two directions. We first strived to better understand this field. We thus investigated a major French geographic area highly involved in the freight transportation and logistics economic activity: the region of Lille which connects Northern Europe to Southern Europe. An experiment in this region brought together training institutions, firms and employment agencies in a 'Logistics Campus'.

We compared this investigation to similar fieldwork in Provence-Alpes-Côte-d'Azur (PACA) in the South East of France, in the mouth of the Rhône River. This region is also strategic in terms of logistics as it connects France to Africa and Southern Europe. We took part in a local employment skills planning committee along with some logistics firms, employment agencies and training bodies.

We checked the low environmental concern in this field. Secondly, we choose to assess how proactive transportation and logistics companies overcome this difficulty and mitigate their environmental impact. We selected, as mentioned above, ten proactive companies: five large firms in freight transportation and logistics and five cooperatives and associations working in green urban and short supply circuit deliveries.

This paper focuses on the EMS analysis for the five large proactive transportation and logistics companies interviewed. It attempts to shed light on the barriers to EMS implementation in this area of low concern.

The second step of the study, which has yet to be conducted, is more practical: we aim to propose tools to promote social change in the transportation and supply chain.

## RESULTS

### 'Values training'

Proactive transportation and logistics companies have generally integrated their environmental actions into an EMS. These actions could consist of:

- Measuring power consumption.
- Measuring water consumption.
- Setting up a green area near to the warehouse, such as a water-collection pond.
- Implementing selective waste sorting.
- Installing solar panels on the warehouse roof.
- Displaying the accident rate (*Social actions were included in these EMSs*).
- Promoting sustainable sourcing.
- Encouraging eco-driving.
- Recycling toner cartridges.
- Controlling lighting.
- Applying reverse logistics.
- Working on eco-design packaging with shippers, etc.

These EMS actions were led by Top Management, and circulated by internal and external communication. Training programmes may support global actions – like eco-driving courses, waste sourcing training (for warehouse workers), security and health training, etc. Furthermore, those training programmes were divided in two types: ‘values training’ and ‘workplace training’. In some cases, EMS actions were based solely on ‘values training’. In other cases, EMS actions just entailed ‘workplace training’. In other cases, EMS actions linked the two types of training.

The ‘values training’ aimed to instil environmental awareness in employees’ minds. These ‘values training’ programmes, in the companies interviewed, were provided to top and middle management and to workers. Some workers, particularly warehouse staff (such as warehousemen, truck drivers, fork-lift operators, etc.) or drivers, were in some way reluctant to do this kind of ‘ideological training’.

It is quite surprising that, in the transportation and logistics proactive firms interviewed, those ‘values training’ courses were provided to workers and middle management and not exclusively to top management. As we noticed above, literature insists on senior managers’ conversion to environmental principles in order to green the organisation. However, providing ‘values training’ to the workers could be an interesting procedure in this field where concern is very low. As a matter of fact, transportation and logistics workers regard ecological awareness as very distant from their work activities and concerns.

According to the companies’ leaders, these ‘values training’ programmes may be a way to get workers to adopt the firm’s environmental strategy. Indeed, ‘values training’ give meaning to the companies’ environmental actions. Nevertheless, ‘ideological training’ and communication do not merely seek to enhance employees’ environmental values and mindset. The real objective is to green their work practices and to create an ‘energy-saving culture’ in firms. These companies are trying to change attitudes in order to change employees’ behaviour and work practices.

Nonetheless, they cannot provide this kind of ‘values training’ without first carefully thinking through how to best disseminate information and adopt new professional practices. An excessively top-down approach can be counterproductive, and may create a form of rejection of those ‘ideological training’ programmes and thus rejection of the company’s environmental strategy.

### *The top-down management limitations*

An interview with a trainer, who gives environmental ‘values training’ to top management and workers, can help us understand Top Management environmental limitations. The EMS top-down approach, in most of the proactive transportation and supply chain companies, can lead to a significant rejection of the EMS actions – such as the training.

This instructor explained that he built the environmental values training on a type of learner feed-back procedure. They had to review their own work practices in order to suggest an action plan to green their practices. Every six months, trainers submitted a description of all the trained staff projects to the Human Resources Department. But, this instructor “was very reticent about what happened to these projects”. It put him in an uncomfortable position: “What bothers me the most is that they didn’t get back to the training!” Moreover, this instructor is convinced by the importance of an operational vision of the environmental issue: “At one point, there are those that walk the walk!” For him, “a majority of good environmental ideas is common sense. And common sense comes from the ‘everyday people’”

Furthermore, some workers were disturbed by the fact that the ‘values training’ was compulsory. The interviewed trainer outlined that “they were not reluctant about the topic, but rather about the company imposing this kind of training: Why does my company oblige me to do training on

sustainable development?” Furthermore, the workers did not accept the company’s intrusion in their private values system. And most of all, they rejected the type of training, which involved a top-down approach, characterised by the authoritative process and absence of feed-back.

So, a good way to involve employees in the greening organisational process of a firm might be to have them take part in upgrading their work practices, by pooling their informal and tacit knowledge. It could be done with the trainers cooperation during ‘values training’. The leadership might then take into account all those bottom-up projects to transform the work organisation and practices.

## DISCUSSION

Sustainable development is about values. Promoting greener behaviour implies promoting new values. But, in most of the companies, this is considered for the sole benefit of the firm, in a top-down approach, without taking on board employees’ initiatives, ideas and feelings. The purpose of this paper is to defend a greening process that is not just a top-down process, but also bottom-up.

Acquier (2009, p.49) highlighted the problems caused by a very EMS top-down approach. He noticed, in an article on a French company’s EMS failure, that to avoid a greenwash perception of the company’s environmental strategy, firms should set up “a discussion process in which the various players (leaders, workers and environmental managers) co-produce the meaning of change and content through their interactions”.

Murillo-Luna et al. (2011) demonstrated that low employee involvement in decision-making was a barrier to adopting environmental management practices. This low involvement is, in our view, due to the top-down approach of many EMSs. Boiral et al. (2014) remind us of the central role of managers’ values in the process of greening the organisation. Thus, influencing the managers’ values would appear to be a key action in greening the workplace. But what about the informal and tacit knowledge of the workers? In an older work, Boiral (2009) discovered the importance of the OCB in organisational greening. He highlighted the importance of employees’ tacit knowledge. But his recommendations stayed very general and were not adapted to a field with very low concern such as transportation and logistics. In this field, companies must have a highly volunteer approach that includes ‘values training’. Nevertheless, to motivate workers who are virtually unconcerned, these proactive companies shall implement genuine feedback from the ‘values training’ to promote the employees’ tacit knowledge.

## CONCLUSION

We observed that in some companies, work organisation has been changed in two ways. Firstly, it was important for company leaders to promote the values of sustainable development by way of ‘ideological’ training given to all employees. Secondly, the method was a kind of ‘workplace training’ which included best practices, primarily for less skilled workers (for instance waste sorting by the shippers). For the first step to be successful (implementation of new values) they have to be linked to employees’ every day practices. In this process, learners’ ideas and initiatives must be encouraged and taken into account when changing their own work organisation. In this way, these courses are not perceived by the employees as an intrusion on their private life by the board of directors.

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## BIOGRAPHICAL NOTE

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