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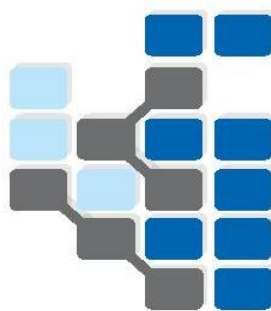
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SOMS
**Studies of Organisational
Management & Sustainability**

Vol 1, No 2 (2013)

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PUBLISHER

Studies of Organisational Management &
Sustainability (SOMS) is an academic
journal published by ISMAI.
www.ismai.pt

SPONSOR

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Caribbean cruise tourism: issues, challenges and sustainability

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ABSTRACT Cruise tourism is the fastest growing segment of the travel and tourism industry. With its growth has come concern about the impact of cruise tourism on coastal and marine environments, local economies, and on the socio-cultural nature of port communities. These three areas are key elements in any analysis focused on Caribbean sustainable tourism development and form a critical base from which to consider strategies to ensure the sustainable development of cruise tourism. A qualitative methodology was utilized to analyze literary texts. The objectives of this paper are to identify cruise sustainability and analyze how cruise tourism in the Caribbean adheres to these principles with some suggestions for management. Challenges faced by Caribbean Islands, communities, and the cruise industry are identified and described. Analysis of these issues and challenges gives direction for policy and management of how cruise tourism can grow in ways that are both sustainable and benefit all the stakeholders.

Keywords: Caribbean, cruise tourism, impacts, issues, challenges, development, sustainability

1. INTRODUCTION

Over 900 million tourists traveled internationally in 2007, with more than half traveling for pleasure (WTO, 2008). Tourist spending in 2007 reached US\$856 billion, 5.6 percent more than in 2006 (WTO, 2008). Macroeconomic figures identify tourism as the biggest industry in the world, making up 11.7% of Gross Domestic Product and providing one in every twelve jobs on the planet (Álvarez, Martín, Casielles, 2007). The growth continues, One billion tourists have travelled the world in 2012, marking a new record for the international tourism sector that accounts for one in every 12 jobs and 30% of the world's services exports (WTO, 2013). Receipts from international tourism in destinations around the world grew by 4% in 2012 reaching US\$ 1,075 billion. This growth is equal to the 4% increase in international tourist arrivals over the previous year which reached 1,035 million in 2012. An additional US\$ 219 billion was recorded in receipts from international passenger transport, bringing total exports generated by international tourism in 2012 to US\$ 1.3 trillion (WTO, 2013). While the economic benefits of tourism are well known, the benefits of tourism are rarely equitably distributed among stakeholders in traditional tourism development. These economic benefits also come with environmental and cultural costs that are unfairly borne by some stakeholders (Mortz, Ray, & Jain, 2005). To move away from this traditional tourism model towards sustainable tourism development, benefits and costs must be justly distributed among stakeholders. Jamal and Getz (1995) argued that residents are important stakeholders whose participation is necessary to move towards sustainable tourism.

Tourists' transportation, accommodation, and activities at a destination can alter the environment and consume resources. While tourism has some positive environmental impacts

such as raising environmental awareness (Cohen, 1978), lack of good tourism planning causes many more environmental costs. Cohen (1978) examined the environmental costs of tourism development based on the following characteristics: (i) intensity of destination use and development; (ii) resiliency of the destination's environment; (iii) investment return schedule of a destination's stakeholders; and (iv) transformational character of the tourism development. The intensity of destination use and development can be related to Butler's (1980) destination life cycle. Destinations pass through the life cycle stages based on the volume and type of tourist it attracts. A small number of exploratory and adventurous travelers 'discover' the destination and are followed by mass tourism as the destination becomes more popular.

Destination planners and tourism companies must supply the needed tourism development and infrastructure to accommodate increasing numbers of tourists. As tourist arrivals increase, the cumulative impact of tourists on the environment and demand for resources also increase (Christensen & Beckmann, 1998; Gössling, 2002). Moreover, Warnken, Bradley, and Guilding (2004) argued that leisure travelers are more indulgent while on vacation, increasing demands for resources per capita.

The Caribbean has been intensely used by tourists for decades, its proximity to the North American market accounts for its strategic location. Cruise tourism has been growing significantly and about 40% of the cruise market visit the Caribbean, Cruise Lines International Association, (CLIA, 2012). As a result of tourism development, many Caribbean islands cities were transformed from quiet towns to densely-developed urban areas in order to support the large number of visitor arrivals. The destination's absorptive capacity for tourists and tourist impacts is another important feature for determining tourism impacts (Cohen, 1978). Urban infrastructure can better receive and accommodate large numbers of visitors compared to natural areas; therefore, natural environments give way to development. Impacts to islands are more intense because of resource limitations, increasing competition between tourists and residents for those resources (Cronk, 1997). The time horizon of tourism development investments is the third destination feature identified by Cohen (1978). Developers who demand short-term returns develop with less regard to the overall vitality of the destination and its potential to continue to attract tourists long into the future (Cohen, 1978).

These speculative developers receive the economic benefits without paying the non-financial costs. Wen (1998) argues that "one fundamental cause for environmental problems is that those who exploit natural resources can obtain benefits immediately without having to pay the full cost (both economic and social) of depletion, while these costs, paid either now or in the future, are transferred to the society as a whole." This type of development can be controlled by government through zoning and permits and when tourism development is properly controlled by stakeholders with a longer-term perspective, resource exploitation and environmental and social costs can be reduced. Tourism development transforms its destination, usually with many negative outcomes (Cohen, 1978). The natural environment or culture that originally attracted tourists was replaced by development and commercialization. Transformational tourism development, however, also alters the relationship that residents have with the environment (Ahn, Lee, & Shafer, 2002). Residents' relationships with the local environment become decontextualized (Gössling, 2002). Residents in mass tourism destinations face congestion,

noise, neighborhood and environmental dereliction, and higher prices resulting from competition with tourists for scarce resources consequently resulting in decreased community satisfaction (Cavus & Tanrisevdi, 2003; Liu & Var, 1986).

2. CONCEPTUAL BACKGROUND - SUSTAINABLE TOURISM

Since the 1992 Earth Summit in Rio de Janeiro, there is increasing awareness of the importance of sustainable forms of tourism. Although tourism, one of the world largest industries, was not the subject of a chapter in Agenda 21, the Program for the further implementation of Agenda 21, adopted by the General Assembly at its nineteenth special session in 1997, included sustainable tourism as one of its sectoral themes. Furthermore in 1996, The World Tourism Organization jointly with the tourism private sector issued an Agenda 21 for the Travel and Tourism Industry, with 19 specific areas of action recommended to governments and private operators towards sustainability in tourism. The Caribbean region has been identified as a cultural, social, and economic unit, biologically rich and diverse. These factors, along with its geographical location, determine that its tourism development must be conditioned to sustainability and the principles of integration, cooperation, and consensus to facilitate integral development by all stakeholders. According to studies made by the World Tourism Organization of the United Nations (UNWTO), it is foreseen that the Caribbean will continue to be the most visited destination for cruise tourism for years to come, with a market share of over 37% of passengers.

Cruise tourism is the fastest growing segment of travel and tourism, increasing 7.2% annually since 1990, doubling every decade (CLIA, 2012), see Table 1. While cruise tourism growth has typically been greatest in North America, growth in recent years increasingly has happened at a quicker pace elsewhere in the world. Between 2006 and 2009 passenger numbers in North America were virtually unchanged, compared to a 68% increase (an average 17% annually) outside North America (CLIA, 2010) especially Australia and New Zealand. This growth is in part a result of redeployment of older ships from North America to other parts of the world, including Europe, Asia, and Australia (Davies, 2009). The growth also reflects construction of ever-larger ships. The size of the cruise ships continue to increase, surpassing 100,000 tons, with capacities ranging from 3,200 to 6,000 people (Klein, 2005a). As the size of ships has grown, and the number of ships has increased, new ports have been established and existing ports have found ever-growing numbers of cruise passengers day-visitors. Overall, the number of cruise passengers has grown more than 30 fold between 1970 and 2012, which poses a much greater environmental threat.

Embedded in the concept of sustainable tourism are three main areas of concern; the environmental impacts, economic impacts and social-cultural impacts. Tourism is recognized as a resource-intensive industry; it needs, therefore, to be accountable in terms of sustainability at both local and global scales. Sustainable tourism (ST) is a major focus in the debate on environmentally integrated tourism development, but existing research shows that sustainability is a complex concept, and one that requires more critical and comprehensive

analysis (Butler, 1999; Mowforth & Munt, 2003). Several influential papers have enhanced the understanding of the highly complex and intertwined issues of ST, quality of life, equity and the environment (Butler, 1999; Collins, 1999; Farrell & Twining-Ward, 2004; Hunter, 1997; Wall, 1997). It is argued that ST needs to be conceptualized in a more comprehensive way so as to appraise meaningfully and critically its interconnectedness with the natural, social and economic elements at multiple scales and time periods (Farrell & Twining-Ward, 2004; McKercher, 1999). ST therefore can be best construed either as an “adaptive paradigm” (Hunter, 1997) or as “adaptive management” (Farrell & Twining-Ward, 2004), which addresses issues of unpredictability of events, uncertainties about the outcome of events and complexities of scale and times. An important point about the concept of sustainability is that it is defined, interpreted and implemented differently by individuals, stakeholders and social groups; it is often referred to as a “balance” or “wise” use of resources. Four basic principles for the concept of sustainability have been considered: (1) the idea of holistic planning and strategy-making; (2) the importance of preserving essential ecological processes; (3) the need to protect both human heritage and biodiversity and (4) development based on the idea that productivity can be sustained over the long term for future generations (World Commission on Environmental Development, 1987)

Table 1 - Worldwide Cruise Passengers Market

Year	North America	Europe	Rest of the World	Total Cruise Passengers	% Growth Worldwide
2000	4,364,470	1,947,780	901,750	7,214,000	22.94%
2002	5,882,000	2,162,500	605,500	8,650,000	19.91%
2004	6,328,300	2,824,200	1,307,500	10,460,000	20.92%
2006	7,263,630	3,241,620	1,500,750	12,006,000	14.78%
2008	9,546,295	4,260,330	1,972,375	15,779,000	31.43%
2010	11,144,705	4,973,670	2,302,625	18,421,000	16.74%
2012	11,616,000	6,284,000	2,160,000	20,060,000	8.90%

Source: Cruise Line International Association, Florida Caribbean Cruise Association

Cruise Market Watch

3. CRUISE ENVIRONMENTAL ISSUES AND CHALLENGES

A cruise ship produces a number of waste-streams. Some, such as oily bilge water, ballast water, and air emissions from fuel are common to most ocean-going vessels. Other waste-streams are specific to cruise ships, such as the volume of human waste and grey-water, solid waste, and incinerator emissions and ash (Copeland, 2009; EPA, 2009). Many notable technological advances have been applied to cruise ships in recent years (Seatrade Insider, 2010a), including systems for treating the roughly seven gallons of sewage and 90 gallons of grey-water per person per day. These new systems, however, can produce as much as 28,000 gallons of sewage sludge per week (National Marine Sanctuaries, 2008, p. 43). While land-based tourism also produces grey-water and sewage, treatment systems on board cruise ships are often less effective given the limited space available for the full suite of treatment systems commonly found on land. Grey-water; i.e. water from sinks, showers, galleys, etc. has typically been discharged overboard

untreated, which by international regulation is legal. Human waste typically has been treated by a Type 2 Marine Sanitation Device (MSD). A slow shift to Advanced Wastewater Purification System (AWTS) began in the early 2000s after testing in Alaska demonstrated that MSDs failed to meet operational specifications: 79 of 80 samples from cruise ships were seriously out of compliance and posed an environmental risk (Klein, 2002). Alaska is unique in that it is the only jurisdiction where onboard observers (Ocean Rangers) are placed on cruise ships permitted to discharge in state waters. Observers monitor waste treatment systems and regularly sample effluent (Klein, 2009, pp. 23-24). While these systems are likely to be installed on ships sent to Alaska, they are not necessarily on ships deployed in the Caribbean and there is no government agency similar to Ocean Rangers monitoring discharge. Additionally, there is variation by cruise company, Norwegian Cruise Line had AWTS on their entire fleet by 2008, whereas only one of Carnival Cruise Lines' 22 ships was equipped with this technology (Brannigan, 2008). The other major cruise lines, Royal Caribbean International, despite an assurance in May 2004 that it would have AWTS on all of its ships by 2008 (Klein 2005a, pp. 147-148), still had 11 ships, almost half its fleet without AWTS at the start of 2010 (RCI, 2010). Perhaps more troubling is that cruise ships neglect their corporate social responsibility by having different practices based on the regulations within different jurisdiction.

Air emissions from cruise ship engines are an obvious source of pollution, cruise ships comprise 12% of the world's commercial ships (Sutton, 2010), however, they pose a unique problem as they run auxiliary engines while in port to drive their onboard power plant. Some ports have introduced 'cold ironing,' a requirement that ships plug into the power grid for electricity while in port; e.g. Charleston, South Carolina, however, the practice is still quite limited (Klein, 2008, 2009). Conventionally a cruise ship's daily emissions are likened to the impact of 12,000 automobiles (Oceana, 2003, p. 1). Waymer, 2007, study found that bunker fuel on average has almost 2,000 times the sulfur content of highway diesel fuel used by buses, trucks, and cars and that one ship can make as much smog-producing pollution as 350,000 cars which varies widely depending on the fuel being burned. Current international standards set maximum sulfur content for ocean going vessel fuel at 4.5%, making it easy for cruise lines to say they meet or exceed international regulations since bunker fuel averages 3% sulfur content (low sulfur fuels such as on-road diesel have sulfur content as low as 0.0015%). Limits will reduce to 3.5% in 2012 and 0.5% in 2020 (Annex VI, 2008). To date, cruise lines have been resistant to using fuels below 2.5% sulfur because of its higher cost, except where cleaner fuels are required. Following developments in Europe, the US and Canada partnered to establish the North America Emission Control Area extending 200 miles from the coast, which was ratified by the International Maritime Organization on March 26, 2010 (Lagan, 2010). It limits sulfur content in fuel to 1.0% effective 2012 and 0.1% by 2015. No such agreement exist in the Caribbean region.

A cruise ship produces a large volume of non-hazardous solid waste, including huge volumes of plastic, paper, wood, cardboard, food waste, cans, glass, and the variety of other wastes disposed of by passengers. It was estimated in the 1990s that each passenger accounted for 3.5 kilograms of solid waste per day (Herz and Davis, 2002:11). With better attention to waste reduction this volume in recent years has been cut nearly in half. But the amount is still significant, more than eight tons in a week from a moderate sized cruise ship. Twenty-four per

cent of the solid waste produced by vessels worldwide comes from cruise ships (Copeland, 2008). While land-based tourism also produces solid waste, cruise ships pose a unique problem given the amount of waste discharged at sea and, some would argue, the greater volume of waste per guest. Glass and aluminum are increasingly held on board and landed ashore for recycling, but only when the itinerary includes a port with reception facilities; it is otherwise discharged at sea.

Food and other waste not easily incinerated is ground or macerated and also discharged into the sea, legally beyond three miles from shore. These '... food waste can contribute to increases in biological oxygen demand, chemical oxygen demand, and total organic carbon, diminish water and sediment quality, adversely affect marine biota, increase turbidity, and elevate nutrient levels' (EPA, 2008, pp. 5-11). They may be detrimental to fish digestion and health and cause nutrient pollution (Polglaze, 2003). An additional problem with discharging food waste at sea is the inadvertent discharge of plastics. Under Annex V of the International Convention for the Prevention of Pollution from Ships (MARPOL), throwing plastic into the ocean is strictly prohibited everywhere. Plastic poses an immediate risk to sea life that might ingest or get caught in it (Reid, 2007). Solid waste and some plastics are incinerated on board, and then the incinerator ash is dumped into the ocean. Incinerator ash and the resulting air emissions can contain furans and dioxins, both found to be carcinogenic (Klein, 2009), as well as heavy metal and other toxic residues. For this reason Annex V of MARPOL recommends, but does not require, that ash from incineration of certain plastics not be discharged into the sea (EPA, 2008). At the very least, incinerator ash should be tested before each overboard discharge in order to determine whether it should be categorized as solid waste or hazardous waste (EPA, 2008). Although cruise ships have reduced their volume of solid waste, the total amount is still significant. Royal Caribbean's commitment in 2003 to not dump any trash overboard is admirable (Fain, 2003), however, there is no independent verification of the implementation of this policy. According to the environmental group Oceana, the average cruise ship produces the following immense amount of pollution every day:

- 25,000 gallons of sewage from toilets;
- 143,000 gallons of sewage from sinks, galleys and showers;
- 7 tons of garbage and solid waste;
- 15 gallons of toxic chemicals; and
- 7,000 gallons of oily bilge water.

During 2012 many cruise companies stated their commitment to environmental practices which set a high standard for excellence and responsibility. They insisted that many of their ships currently go beyond what is required by law and include a zero solid waste discharge policy, state-of-the-art environmental technology and waste management equipment, programs to minimize waste generated, and recycling where possible.

4. CRUISE ECONOMIC ISSUES AND CHALLENGES

There are debates about the economics of cruise tourism, the value of cruise passenger spending and costs associated with infrastructure required to host ships, including cruise terminals that can cost \$100 million or more. Cruise ships ports of call are a focal point of the cruise business because they provide value to passengers and some economic benefits to local businesses and tour providers. Economic benefits are not always distributed equitably between the cruise ship and the port and cruise port operations can be a muddy business leaving local business interests outside. Often, the cost of rental space at the port is a challenge for local businesses and larger outside companies with better access to capital often have shops at different cruise ports in different cruise destinations, example St.Thomas, St.Maarten, St.Kitts, Antigua, St.Lucia, Aruba and Curacao in the Caribbean A second issue of concern is that ports increasingly feel pressure to construct new cruise terminals to accommodate the new much larger ships and often compete with neighbors for business. In Belize passengers arrive by tender at Fort Street Village in the center of Belize City. The village is contained by a wall and security fence and has within a range of shops and eateries and bars, many of which are found in other Caribbean ports including Diamonds International, which until 2011 co-owned the Fort Street Village with Royal Caribbean. The retail space is expensive so few local merchants can afford to be there; there is a small crafts market for them in another area, but the rents again are relatively significant given the degree of potential income. The result is that merchants in the Fort Street Village have income, despite heavy overhead costs, but merchants outside do less well given the relatively few cruise passengers who venture independently from the Fort Street Village. Many taxi drivers are left behind the security gate entrance to the cruise terminals. Most passengers take shore excursions. These are major money makers for the cruise ship, which holds back 50% or more of what passengers pay on board for a tour. This creates two problems. First, a passenger spending US\$80 for a shore excursion expects a \$80 product, but the shore excursion provider only receives US\$40. While the cruise ship walks away with its cut, the shore excursion provider must provide a quality product that pleases passengers and the cruise line while still retaining a small profit. If passengers are unhappy they will blame the shore excursion provider, unaware of the cruise line's cut, which can exceed 50%; one cruise line retains 90% of the cost of a shore excursion in St Vincent and the Grenadines (Caribbean Media Corporation, 2007).

In many Caribbean islands with cruise tourism a small hand full of individuals make a little amount money from cruise tourism, but that the majority of tourism businesses realize little benefit to the locals. In fact, cruise tourism earns considerably less for the local economy than traditional land-based tourism. A 2007 study found cruise visitors spent less than half as much per day as land-based visitors (US\$44 vs. US\$96). Cruise passengers accounted for 75% of arrivals to Belize, but only 10% of employment in the tourism industry (Centre of Ecotourism and Sustainable Development, 2006). While cruise tourism brings many more visitors, its economic impact is relatively small and concentrated in a few hands. The situation in Belize became more problematic in early 2011 when Carnival Cruise Lines announced it would no longer use locally owned tenders to transport passengers from the ship to shore. The cruise line

changed its requirements and insisted that tenders must accommodate at least 200 passengers. Many local tender owners fear going out of business, especially given the debt incurred to purchase vessels that previously met the cruise corporation's requirements. Subsequent to its initial demand, Carnival cruise line called on tender operators to reduce their fees and it boycotted the port (Kelly, 2011a, 2011b).

New, larger ships dictate renovations. The financial burden for construction and maintenance of these cruise facilities is often on local Caribbean governments that may or may not recoup their investment. The Government of Jamaica spent more than US\$120 million on a new US\$225 million cruise terminal at Falmouth. Like many other ports, they may end up subsidizing the cruise industry. They feel forced to make investments, but at the same time are pressured to keep cruise passenger head taxes as low as possible (in the Caribbean considerably lower than fees paid by those arriving or departing by air). However, some ports appear to negotiate better deals than others. St. Maarten received a \$34.5 million loan from Carnival Corporation in 2007 for construction of a new pier. Royal Caribbean loaned it an additional \$10 million for a fixed berth on the new pier. Given terms of the loans, agreed to passenger head taxes, and maintenance costs, the port is likely to end up subsidizing the construction project--anticipated revenues will barely keep up with expenses (Klein, 2008). At the same time, Port Everglades (Fort Lauderdale) agreed to renovate one of its new terminals at a cost of \$37.4 million in order to accommodate Royal Caribbean's Oasis of the Seas and Allure of the Seas, two of the biggest cruise ships in the world, but in that case neither the port nor taxpayers will foot the bill. Royal Caribbean will instead pay for the work through a \$5.70 surcharge on passengers when they leave and arrive. That's in addition to a \$9.95 port user fee all passengers pay. The result is that while St. Maarten has to pay for its new piers with existing port fees and is left at the margin with regard to generating enough income to cover all expenses, Port Everglades maintains its usual port fees and collects an additional fee to specifically cover construction costs (Klein, 2005a, p. 126).

An increasingly common arrangement that avoids this problem is that cruise corporations are building and operating their own cruise terminals, some on Caribbean "private islands". Carnival owns terminals in Cozumel, Roatan, Turks and Caicos, Long Beach California and elsewhere; controls a terminal in Savona, Italy; and in partnership with Royal Caribbean holds the concession for the cruise terminal at Civitavecchia (Rome). Royal Caribbean holds the concession for cruise terminals at Falmouth, Jamaica and Kusadasi, Turkey, and in partnership with Diamonds International owned the terminal in Belize. The effect of these arrangements is that income generated from cruise tourism increasingly goes into corporate coffers rather than local businesses, this goes against the principles of sustainable tourism development. As well, as was seen in Kusadasi, shops within the cruise terminal take business away from shops traditionally visited by cruise passengers (Klein, 2008). The economic value of cruise tourism to local constituents and stakeholders is dwindling while the cruise line's profits increases. This does not constitute sustainable cruise tourism for the Caribbean. These corporate owned terminals in some regions compete with other ports and may factor in bargaining as nearby ports negotiate with the cruise industry. Ports are potentially played off against one another. This is certainly the case in British Columbia where five ports have been encouraged to build terminal facilities,

yet the number of cruise passengers is not increasing (Klein, 2005b). With alternatives, cruise lines are able to ensure they get the best possible deal while some ports win and others lose. At the same time that a cruise corporation is responsible to stockholders for generating profit, it has a responsibility to the ports and communities it visits. Port communities should receive fair, equitable, and widely disbursed benefits from cruise tourism.

5. CRUISE SOCIO-CULTURAL ISSUES AND CHALLENGES

Caribbean governments have the absolute authority to make decisions regarding cruise tourism, many islands will accommodate as many cruise ships as want to come and not seriously consider socio-cultural impacts; people city overcrowded and homogenization of the port experience. Over crowded cities at which the carrying capacity of a port is exceeded has increasingly become a concern as the number of cruise ships has increased and the size of these ships have grown e.g. St.Thomas US Virgin Island and St.Maarten. In the 1990s, five ships calling at a port would have offloaded 8,000 cruise passengers or less; today five ships could easily bring more than twice that number of passengers. The experience of passengers is impacted, however, more importantly local inhabitants are forced to deal with overcrowding and other problems associated with this growth. These problems are in many ways unique to cruise tourism given the short-term daily influx of large numbers of people and that land-based visitors stay at their resort or are disbursed more broadly across each island. Crowds disrupt usual routines and the activities associated with cruise tourism can themselves be a problem with impacts on quality of life. (Klein, 2008, pp. 99-100). Quality of life is directly impacted by the volume of visitors. The United Nations Committee on Sustainable Tourism notes that when the social carrying capacity of an island is surpassed, cost of living increases along with overcrowding, traffic congestion, and noise pollution. A lower standard of living results for a significant segment of the population and an attitude shift occurs whereby the tourist is blamed for the majority of social problems (Baron, 1999).

Concern is with whether visitors have an opportunity to interact with and to experience local culture, and that local cultures are treated respectfully. Here again the sheer volume of cruise passengers can compromise the experience for both. In Belize for example, locals warn visitors not to visit Xunantunich on 'cruise day,' one of the main Mayan sites in Belize for cruise passengers (Krohn, 2010). Passengers' experience of the sacred site is limited by both the length of time spent and by the number of other cruise passengers sharing the site, on most days the site is quiet. The Caribbean has been associated with cruise ships no fewer than sixty years and is an example of a mature cruise destination. As such, ports have to a degree become homogeneous; jewelry stores, duty free shops for liquor and other goods, and an assortment of tourist-oriented products. A number of companies like Little Switzerland, Diamonds International, Colombian Emeralds to name a few, have stores in many Caribbean ports. While this homogenization may have economic value to the outside corporations that own the stores, it takes its toll on the local people. Not only have these stores changed the character of the downtown city, but the volume of cruise tourists makes the downtown unattractive to local

citizens, who have to wait until the end of the cruise season to again enjoy their quiet city. In addition, these foreign own stores take their profits with them at the end of the season. It is essential that the growth of cruise tourism not have a negative impact on the quality of life of citizens in and around a port. If anything, the impact should be positive. As quality of life is a largely qualitative concept, the best indicator is people in and around the port, all walks of life and all segments of society. All of the major stakeholders; cruise ship companies, governments and the local communities must work together to ensure the sustainable growth of cruise tourism providing more opportunities to the locals so that as much economic benefit as possible be available to as wide a segment of the community as is possible.

Cruise tourists consider health, safety, and security issues to be very important aspects of an attractive, enjoyable cruise. Cruise lines also take these concerns very seriously, and pay a considerable amount of attention to ensuring the health, safety, and wellbeing of both guests and employees on-board ship and while visiting ports. The level of shore side crime and guests' perception of health and safety has a considerable impact on the attractiveness of Caribbean destinations. Visitor health and safety remains an important topic worldwide. Perceived or real threats to visitor safety have immediate impacts on a destination's reputation and can dramatically affect visitation. If visitor health and safety is not well managed, adverse incidents can significantly impact on the profitability and sustainability of an individual business, community or destination. Ports and destinations also need to take these issues into account, as well as ensuring the health and safety of their own employees, and minimizing potential negative impacts on the health of surrounding communities. There are several important ethical issues that arise with the increase of tourism. One that is of particular interest to stakeholders within the tourism industry is crime generation.

There are many reasons why crime rates tend to be higher among tourists than among local residents. One is because tourists have certain personal and behavioral attributes which tend to make them "desirable" victims. For instance, tourists often carry large sums of money or valuable items such as cameras and jewelry which can easily be sold easily by criminals. Furthermore, tourists sometimes engage in activities which may increase their risk of victimization, such as frequenting night clubs and bars at late hours, or accidentally venturing into unknown parts of the community which residents consider "unsafe." With the growing animosity towards tourists in local regions and the increase in drug use, the level of violence directed against tourists has increased visibly since in the early 2000s. These violent acts range from verbal harassment, to incidences of physical assaults, robbery, rape, and a few murders. If a destination develops a negative image for visitor safety this will likely result in a declining visitor market for the region. Crime against tourists can cause foreign governments to announce travel advisories, thereby inducing their nationals to alter their travel plans, which might include choosing alternative vacation destinations. Even isolated incidents can produce a ripple effect throughout a country when victims warn their friends and family and/or are encouraged to tell their stories to the news media. Among the immediate impact of such decisions are loss of revenue for airlines, hotels and the industry as a whole. However, the longer-term impact may include fewer repeat visitors and permanent damage to the image of the destination as a location for tourism investment.

6. CRUISE TOURISM MANAGEMENT SUGGESTIONS FOR SUSTAINABILITY

If Caribbean islands want to be sustainable destinations they must be managed by well-trained and committed personnel with up-to-date tourism plans that focuses on sustainable tourism. The islands governments must exercise their authority to have the personnel, resources, and political commitment to implement and monitor the plans. Achievements should be tracked and made available to the general public. Both the local population and the visiting tourists' health and safety should be taken seriously and plans and policies exist for crisis, security, fire, health and safety. Sustainable destinations reinvest the profits from their tourism activities in environmental conservation and historic restoration and preservation. They demonstrate a thriving culture, strong social networks and increasing biodiversity. They show effective planning, substantial land and marine protection, increased energy and water conservation, and a reduction in solid waste per guest over time. They have an effective recycling and wastewater sanitation program that is carefully managed and take steps to reduce the carbon footprint of their activities.

Sustainable island destinations can be internationally recognized if they are committed to do the following:

- The whole Caribbean Sea and reef zone and its coastal strip should be managed as a single ecosystem.
- Policy should be initiated to guide strategies, plans, programs, projects, and activities of government authorities, municipal governments, and private enterprise. The maximum acceptable number of cruise tourists i.e. the carrying capacity should be identified for each port city.
- Exert strict control over all ships whether cruise or otherwise in the Caribbean Sea, based on best practices with regulations to address dumping wastes and pollution from cruise ship.
- Charge cruise ships and cruise tourists increasingly for environmental services and for quality services, while maximum acceptable visitor numbers are established for ecosystems and use zones, thereby enabling the region to receive less cruise visitors and obtain more income.
- Develop and adopt an instruction manuals for tour operators and guests orientation for visitors who intent to use the ecosystems or marine environments.
- Establish a Caribbean Regional Plan for Contingencies to face natural disasters, cruise ships accidents, etc.
- Characterize reef zones in enough detail to allow the adoption of management measures and use prohibitions according to their carrying capacity or limits of acceptable change.

7. CONCLUSION

Generally, sustainable tourism development (STD) is a long-term approach that cultivates economically viable tourism without harming residents' environment or society while simultaneously ensuring fair distribution of costs and benefits. Decisions are based on economic, environmental, and cultural impacts; how wealth is generated and distributed; and the relative power and interactions among the stakeholders (Bramwell, 2006; Twining-Ward & Butler, 2002). STD balances industry's goal of profit with the needs of the environment and stakeholders (Bramwell, 2006). Stakeholder cooperation is necessary for sustainable tourism; otherwise only the most powerful will benefit (Dyer, Gursoy, Sharma, & Carter, 2007). To keep stakeholders satisfied with tourism development and their community, the environment and culture must be protected (Ahn et al., 2002; Hjalager, 1996). When tourism development enhances, rather than erodes the natural environment, a more sustainable tourism product can be offered to support the destination's economy (Batra & Kaur, 1996). A government that effectively manages tourism creates benefits for all stakeholders (Jamal & Getz, 1995). Effective management is avoiding negative impacts through a combination of general protective measures; regulations to control development; and financial restraints (Cohen, 1978; Hjalager, 1996). Improvement of the environment can be achieved by ensuring that development is harmonious with the overall plan for the destination (Batra & Kaur, 1996). Necessary tourism infrastructure such as roads, airports, parks, and visitor centers are also the responsibility of government (Jamal & Getz, 1995). Maintenance of infrastructure and facilities is expensive and residents, through property taxes, should not be the only group to bear this burden (Wong, 1996). Residents benefit when tourists spend money in the local economy and create jobs, as well as from the development of infrastructure that residents also utilize (Wong, 1996).

In the Caribbean the big question is, can cruise tourism be sustainable? The answer is yes, with government legislation and good management practices. Large cruise ships are not great for the environment at all, especially the oceans. There's a tremendous amount of electricity used, fuel burnt, garbage, sewage and even hazardous waste created, and a massive amount of wastewater disposed in the sea. Then there are the negative effects on ports of call. Cruises are essentially all-inclusive vacations, where everything is paid in advance to the cruise company, so locals see very little benefit from shore excursions, aside from a small amount of money spent on souvenirs, and the large amount of waste left. In the Caribbean, the disposal of plastic water bottles left by day-trippers is a very serious problem, as is the impact of the ships on erosion of the islands from new port development which sometimes cause a shift in ocean currents and waves direction resulting in shore erosion. On the contrary, cruise companies have responded to public pressure, they are becoming much more environmentally conscious. As of 2012 many cruise companies are producing their own environmental sustainability reports. The various reports all claim that more eco-friendly improvements are being introduced by cruise companies every day. These include things like more aerodynamic designs, itineraries that make better use of tides, installation of solar power panels, LED lights, low-flow showerheads, and heat-transfer windows to cut down on cooling, reducing air-conditioning emissions and allowing more natural light, use of cleaner burning fuels and non-toxic cleaning supplies, onboard crushing of

aluminum, tin and glass for recycling, re-using used cooking oil as an alternative fuel, replacing plastics with bio-degradable materials, and sourcing local sustainable produce for meals. Some researchers have argued that cruise ship travel is even worse than flying for the amount of carbon emissions created. However, it's very tricky to compare the carbon footprint of a cruise ship voyage with that of a flight, because a cruise ship is not just a means of transport, but includes accommodation, meals, entertainment, and leisure activities.

Cruise tourism's pace of growth and the nature of its product presents many challenges to the Caribbean tourism industry and to ports and port communities. While it is easy to think about sustainability in terms of shipboard operations, when considering the interaction of cruise tourism with local communities the concept of sustainability is also critical. One obvious reason is the mobile nature of cruise ships. Its passengers are day visitors and the ship itself is not part of the communities it visits. Impacts must be measured from the perspective of the Caribbean islands and port community. This becomes even more important as ships get larger given the greater volumes of waste and the increasing number of visitors. While some stakeholders may benefit greatly, others may not. There is no question that the cruise industry has made many strides when it comes to environmental practices. It shouldn't detract from its achievements by not embracing internationally sanctioned regulations such as emissions control areas and by not handling solid waste as well as they can. Several areas related to the socioeconomic benefits of cruise tourism were also discussed. As was seen, the distribution of benefits between cruise ships and shore excursion providers appears to be tipped heavily in favor of the cruise ship. Not only is the shore excursion provider apparently short-changed, but their low level of income means others in the supply chain also receive less. The scenario around cruise terminals also appears to put port communities at an economic disadvantage compared to the cruise industry. Cruise corporations are out to make a profit, and they do that very well, however they can do better at sharing the profits from cruise tourism with the ports on which they depend for attractions and entertainment for their passengers in the Caribbean islands. This income needs to reach all segments of the society, not just the relatively few merchants and guides who come into contact with the cruise passengers.

Within the socio-cultural impacts: the problem of overcrowding, homogenization of the port experience. The most immediate problem to address is the issue of overcrowding port cities. Governments, local communities, ports and cruise companies together need to determine the realistic carrying capacity of port, port cities, and tourist attractions and then design itineraries and port calls that stay within these limits. A port can absorb only so many cruise passengers at a time, and can tolerate only a certain number of days being inundated by cruise passengers. This paper contribute to the debate on sustainability and helps focus the analysis of sustainability on Caribbean governments, cruise companies, the local community and other stakeholders that are effected by cruise tourism development. To address these challenges, major stakeholder groups need to work together to maintain, protect and preserve the quality of natural and cultural resources in Caribbean cruise island destinations. Practical implications for sustainable cruise tourism in the Caribbean is limited to prevailing political-economic, socio-cultural and environmental contexts but governments of the region must implement some common sense policies. From cruise lines and governments to civil society organizations and

shore operators, all of these groups have a stake in ensuring a healthy future for each destination, the Caribbean as a whole and for sustainable cruise tourism development.

Our discussion is consistent with the International Organization for Standardization (ISO) which implies (Guidance on social responsibility: ISO 26000:2010):

- both transparent and ethical behavior that contributes to sustainable development,
- is in compliance with applicable law and is consistent with international norms of behavior,
- is integrated throughout the organization,
- is practiced in its relationships
- and takes into account the interests of stakeholders.

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Enhancing environmental management in the field of road freight transport

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ABSTRACT In recent years, overuse of natural resources has been perceived as a serious danger for society. Being among the main sources of greenhouse gas emissions, road freight transport plays an important role in this respect. Reducing the environmental impact in this domain would therefore yield substantial benefits for the general public and help to improve overall sustainability. In addition to economic reasons, external factors, such as legislation or stakeholder interests can enforce certain behaviours; additionally, awareness and attitudes of decision makers should be considered. Based on these considerations an online survey targeting companies which regularly perform road freight transport has been conducted to empirically confirm the validity of related hypotheses. The purpose of this paper was to analyse the implementation of environmental management in the sector of road freight transport, drawing special attention to the domain's peculiarities and the influence of decision makers' holistic view of sustainability as well as their attitude towards sustainability and environmental management. The results of the analyses show that a holistic management view strengthens managers' attitudes towards sustainability. Although there is some evidence that a strong attitude towards sustainability affects environmental performance, this is only true to a certain extent due to some constraints. Based on the findings, implications for management and policy are provided.

Keywords: sustainability, environmental management, road freight transport, factor analysis, Austria

1. INTRODUCTION

Transport is undoubtedly a key part of a modern society and a prerequisite for economic prosperity. Nevertheless, it is still one of the main sources of problems related to climate change. In particular, freight transport has a high environmental impact (OECD, 2010) with road freight transport being one of the most prominent sources of greenhouse gas (GHG) emissions (Cadarso et al., 2010; European Commission (Eurostat), 2011; IPCC, 2007). This domain – in terms of transport volume and transport performance by far the most important inland transport mode (Fürst, 2010) – thus offers the highest potential of environmental improvements (Leonardi et al., 2004) within the transport sector. Therefore, the area of conflict between transport and environmental protection issues is large. The most effective way to reduce related environmental problems would be to cut back transport demand, to reduce energy demand and to replace fossil fuel by renewable energy sources. A balanced development of road freight transport both in terms of efficiency and environmental goals is needed (Nijkamp et al., 1997). This may be achieved through alternative strategies to reduce adverse impacts of freight transport like increasing efficiency, e.g. by improved routing, higher load factors or intermodal transport as well as by enhancing the environmental performance of all means of transport and vehicles e.g. by using more efficient or alternative propulsion techniques (Demir et al., 2011;

Lemp et al., 2008). An important prerequisite for such changes is a raised awareness of behavioural consequences and improving managers' attitudes and environmental concerns (Fransson et al., 1999; Hensher et al., 1999; Piecyk, 2010).

In this study, the size of the problem and possible pathways for taking action are shown by referring to the Austrian situation. This country offers an optimal framework for this research as it is an integral part of the European Union, with its highly comparable legislation and the Common Market. Because of its central geographical location in Europe, Austria has to take the burden of frequent transit transport (north–south and east–west) (Giorgi et al., 2005; Skjoett-Larsen, 2000). A flexible industry like road freight transport for hire or reward can be regarded as quite tough due to the high degree of competition within the market. Social standards, safety regulations, fees and taxes, customs duties, tolls and other forms of road pricing, demanding customer requirements and time schedules as well as international competitive pressures apply and shape the industry in an exceptional way enforcing adjustment strategies like flagging out to countries with lower cost burdens (Dieplinger et al., 2010; Hammar et al., 2007; Steininger et al., 2007). In Austria, the transport sector accounts for about one third of the national economy's final energy demand (Statistik Austria, 2012a), of which 40-50% can be related to freight transport, with most of the energy (more than 90%) spent on road freight transport (E-control, 2008). In total, about 450 million tonnes of goods were transported in 2010, 331 million tonnes on the road (Statistik Austria, 2012b).

Taking this background into account, the question arises how the environmental sustainability of road freight transport can be enhanced. In this project the problem was approached from the perspective of road freight companies and their managers' environmental concerns and attitudes towards sustainability and environmental management. Furthermore, the existence and strength of the impact that attitudes have on the company's environmental performance should be tested. Transport companies (conducting transport 'for hire or reward') and companies of other industries (producers, retail companies etc.) regularly performing own-account transport were thereby distinguished. On this basis, strategies for improved corporate management are discussed and some implications for management and policy offered. As the transport sector is organized in an internationally comparable way, the results might be used in similar contexts, although some limitations will apply.

This paper is organised as follows. First, the background of the study, which includes sustainability and environmental management instruments as well as the related management theory are discussed. Second, methods and materials for the study are described, mainly based upon statistical analyses of data generated in an online survey answered by around 260 managers. Then, the results of the survey are presented and discussed. Finally some conclusions and implications are given.

2. THEORETICAL BACKGROUND

Sustainable development "meets the needs of the present without compromising the ability of future generations to meet their own needs." (United Nations, 1987). It usually involves multiple

objectives as well as interdisciplinary and normative aspects (Espinosa et al., 2008; Gladwin et al., 1995). Thus, the triple-bottom-line of sustainability includes social, ecological and economic development and possible trade-offs (Elkington, 1998; Goodland et al., 1996; Knez-Riedl et al., 2006). Still, sustainability seems to be hard to define (Gladwin et al., 1995; Solow, 1991), and hence, to capture the meaning, signs for “unsustainability” – such as climate change, ozone depletion, deforestation or the depletion of non-renewable resources, air pollution and waste – are referred to instead (Rao, 2000).

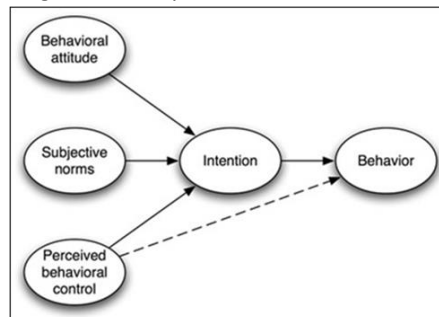
In general, “environmental management” refers to managerial actions of companies in order to decrease their unfavourable environmental impacts, which also includes the effects of the products during their entire life cycle sold by the respective companies (Ammenberg et al., 2005; Klassen et al., 1996; Santos-Reyes et al., 2001). It is present in all kinds of organizations, be they formal or informal, public or private and relates to natural resources and ecosystems and their quality, environmental or related services, as well as the preservation or – even better – improvement of the ambient environment (Seiffert et al., 2005). Environmental management actions result in enhanced environmental sustainability (Goodland et al., 1996).

At the micro-level, managers will, to a certain extent, intrinsically understand the need for sustainability (in the sense of viability). However, as many are largely oriented toward short-term goals for various reasons, they tend to be reluctant to accept these measures since they do not perceive them as having a direct positive impact on their business (Dahlmann et al., 2008). Any model addressing sustainability needs to consider a certain degree of complexity (Kolk et al., 2002); theories regarding an organization as a closed system have proved to be inadequate and open system models (Lawrence et al., 1967a, b; Thompson, 1967) were developed, allowing for the conceptualization of the organization and its environment as a system (Lewis, 1997). Of course, this also involves the deliberate (active) management of trade-offs between economic, environmental and social goals pursued by the company in a holistic way. Some of the rare theoretical concepts capable of treating such a high degree of complexity are the different streams of systems theory and cybernetic management in general (Checkland, 1981, 1999; Espejo et al., 1998; Harnden, 1990; Knez-Riedl et al., 2006; Kuhn, 1986; Laszlo et al., 1998; Midgley et al., 2004; Morgan, 2006; Oliver et al., 2001; Paucar-Caceres et al., 2011; Schwaninger, 2001, 2004; Vancouver, 1996) and Stafford Beer’s Viable Systems Model in particular (Beer, 1979, 1981; Espinosa et al., 2008; Lewis, 1997; Schwaninger, 2006b). Viability (Schwaninger, 2006c) – referring to the long-term survival of the firm – is closely connected to the concept of sustainability (Espinosa et al., 2008). Therefore the model is particularly applicable for treating environmental management matters as part of a holistic strategic management concept (Lewis, 1997, Schwaninger, 2006a, Schwaninger, 2008). Holistic management in the sense of the viability concept is about balancing, integration and synthesis of different factors and the harmonization of contradicting intentions and expectations, rather than mere analysis and optimization or the construction of systems of goals (Malik, 2004). This, of course, includes environmental management issues and embedding them in general corporate management. Moreover, cultural considerations need to be respected in environmental management (Satterfield et al., 2013). Hence, the viable systems model offers a holistic approach to management and can help to balance and manage social, environmental

and economic dimensions simultaneously in order to reach (long-term) viability satisfactorily (Boons et al., 2012; Schwaninger, 2003).

The question is raised whether managers – in the light of this theory – actually stick to this concept and think holistically (in the sense of viability) especially when it comes to the practical implementation of environmental management. Measures improving the profit situation (like cost-saving) and compliance with legislation and standards are important (Bansal et al., 2000); but also environmental concerns and related attitudes play a salient role in this respect (Fraj-Andrés et al., 2009; Gadenne et al., 2009). The personal predisposition of employees to act in an environmentally sustainable manner is strongly influenced by their values and attitudes (Ramus et al., 2007). As a consequence, attitudes towards environmental protection are substantially associated to environmental activities (Cordano et al., 2000). Sweet et al. argue that information processing and decision-making styles are central aspects of the environmental performance of sustainable companies (Sweet et al., 2003). The belief in a mutually beneficial situation resulting from environmental measures, leads to a more proactive environmental management behaviour, and eventually yields a stronger environmental performance (Plaza-Úbeda et al., 2009). Referring to Ajzen's 'Theory of Planned Behavior', attitudes, subjective norms and perceived behavioural control clearly influence the intention and, thus, the behaviour (see Figure 1) (Ajzen, 1991, 2005; Fishbein et al., 1975). Accordingly, the decision makers' attitude towards sustainability and environmental management of companies is fundamental for their actions.

Figure 1: Theory of Planned Behavior



Source: (Ajzen, 1991)

Further research, while not directly based on Ajzen's concept, broadly accept its rationale and the fundamental impact of decision-makers' attitudes on their eventual behaviour (Fransson et al., 1999; Kirk, 1998; Kotchen et al., 2000). Some of them, however, emphasise a gap between the (stated) attitude and the (actual) behaviour (Burgess et al., 1998). Although many managers have a positive attitude towards environmental management and are aware of the fact that activities may improve their economic results, only few businesses convert this into proactive environmental behaviour (Gadenne et al., 2009) as they prefer short-term profit to longer-term (environmental) benefits (Sangle, 2010). With more environmental activities and by applying respective standards, companies could contribute to the overall goal of sustainable

development (Robinson, 2000; Schmidheiny, 1992; Shrivastava, 1994, 1995; Shrivastava et al., 1994).

A variety of reasons exist why companies go green. The degree of environmental management implementation in a company conducting regular road freight transport is the result of general, external and internal influencing factors (Fürst et al., 2011). General factors include firm size (Aragón-Correa, 1998; Dahlmann et al., 2008; Fürst et al., 2012; Hillary, 2004) and sector affiliation (Russo et al., 1997). External parameters comprise regulations (Gadenne et al., 2009; Liu et al., 2011; Walley et al., 1994) and stakeholder interests (i.e. the requirements of society and the firm's customers) (Coad et al., 2009; Gunningham et al., 2004a; Gunningham et al., 2004b; Thornton et al., 2005). In contrast, internal factors cover the decision-makers' attitudes and beliefs (Cordano et al., 2000; de Vries et al., 2009; Fraj-Andrés et al., 2009; Ramus et al., 2007), as well as profitability and cost saving (Dahlström et al., 2003; Epstein et al., 2001; Feldman et al., 1997; Klassen et al., 1996; Lioui et al., 2012; Melnyk et al., 2003; Ramus et al., 2007; Sroufe, 2003). Thereby, the 'learning progress' is a current topic in academic research (Lankester, 2013). Moreover, the degree of implementation of environmental management has consequences on the company's overall and environmental performance, image, profit and (effective) sustainability.

Transport is a domain with much room for improvement (Hensher et al., 1999), and especially road freight transport is often referred to as a 'dirty industry' (Jänicke et al., 1997) requiring the industry to take appropriate actions (Piecyk, 2010). Among the various sectors, transport accounts for 13.1% of the global GHG emissions (24% in EU-27 (European Commission (Eurostat), 2011). Other relevant sources for GHG emissions are energy (25.9% global, 37% in EU-27), industry (19.4% global, 22% EU-27) or agriculture (13.5% global, 13% in EU-27) (European Commission (Eurostat), 2011; IPCC, 2007). In particular road transport is one of the major sources of CO₂ emissions (European Commission (Eurostat), 2010). However, the businesses involved need to be willing and able to comply and to achieve fundamental environmental improvements (Delmas et al., 2004; González-Benito et al., 2010; McKinnon, 2010; Oberhofer et al., 2012; Thornton et al., 2008). In contrast to other sectors, end-user pressure is very low, whereas, demands from business partners and customers (B2B) are significant. Due to their predominant upstream co-operations in supply chains (they provide rarely downstream collaborations) they are rather reactive in their nature (González-Benito et al., 2006). The quality of their product (transport and logistics services) can hardly be influenced by external players of the supply chain (e.g. they have no classic suppliers) (Maas et al., 2012). Although 'green logistics' (Wu et al., 1995; Skjoett-Larsen, 2000; Aronsson et al., 2006; Köhler et al., 2009; Evangelista et al., 2011) and 'green supply chain management' (Young et al., 2001; Handfield et al., 2005; Darnall et al., 2008) have been heavily discussed – resulting in a considerable body of literature on these topics – there is not much evidence of positive effects of environmental management on transport management and on road freight transport. Also "soft" factors, such as attitude and holistic management view are rarely discussed, only. The usually addressed topics in this context are policy or planning issues (Button, 1993; Nijkamp, 1994; May et al., 1995; May et al., 2003; Vieira et al., 2007; Ruzzenenti et al., 2008) rather than corporate environmental management. Therefore the question how the need for environmental

management in the transport domain is seen and if the companies conducting transport are able and also willing to afford it needs to be raised. (Thornton et al., 2008). Furthermore it needs to be surveyed, whether transport managers apply holistic strategies as proposed by the sustainability-concept in general and the viable systems concept in particular.

In the transport industry, (short-term) economic objectives often prevail for managers – particularly in small and medium-sized trucking companies. Consequently, their ‘good’ or ‘bad’ environmental performance is rather a result of commercial considerations than the company’s (good or bad) environmental impact. Without any commercial or legal pressure, investments into environmental management activities ‘beyond compliance’ are very unlikely (Gadenne et al., 2009). Only companies operating in certain market ‘niches’ may do so. This is in accordance with the strategies of cost leadership and differentiation (Stock et al., 1999). Besides, family-owned businesses often tend to operate with a long-term perspective resulting in improved environmentally-friendly behaviour (Le Breton-Miller et al., 2006). Furthermore, the pressure from ‘social license’ is much greater on large companies than on small ones (Thornton et al., 2008, 2009). Wong and Fryxell show similar findings for fleet size as a moderator (Wong et al., 2004). Company managers whose main business is not the transport of goods but which regularly perform transport on their own account (“make” instead of “buy”) may perceive more room for the implementation of sustainable development and environmental measures. Hence, not only the firms’ resources are crucial factors but also the growth of the industry in which the firm operates (Russo et al., 1997).

Also from the governmental perspective it is important to take measures in order to render road freight transport more environmentally friendly. However, at least three-tier trade-off needs to be taken into account: A first important goal is the preservation of resources as well as the protection of the natural environment; democratic governments, however, also need to bear in mind the population’s interests. Finally, the utility or even necessity of transport as the backbone of the economy also need to be considered (Nijkamp, 1994).

3. HYPOTHESES

Based on the literature analysis mentioned above, it can be hypothesised that a holistic management view of sustainability positively influences the decision makers’ attitude towards sustainability in general, and towards environmental management in particular, which in turn are associated with the environmental behaviour of the companies performing road freight transport. These impacts are assumed to be moderated by sector affiliation which result in transport companies performing less environmentally-friendly than companies from other sectors. Therefore, the hypotheses are:

H 1: The broader a manager’s holistic view (in terms of sustainable development), the stronger the attitude towards sustainable and environmental management.

H 2: The stronger the manager’s attitude towards sustainable and environmental management, the better the environmental management performance of the company.

H 3: A considerable gap can be detected between the general awareness of sustainability issues and environmental management and the actual implementation of environmental measures in day-to-day business, which is supposed to be larger in the transport sector than in companies of other sectors which regularly perform own-account transport.

The hypotheses were used to design the online survey and built the framework for the statistical analysis.

4. METHODOLOGICAL APPROACH

In order to evaluate the hypotheses, a confirmatory approach was developed and an online questionnaire was designed which addressed decision makers of transport companies (for hire or reward) and of companies from other sectors which regularly perform own-account transport (European Commission (Eurostat) et al., 2009). The approach followed Dillman's "tailored design method" (Dillman, 1978; Dillman et al., 2009). Accordingly, the importance of the potential respondent's participation and his/her personal benefit was emphasized in order to increase the response rate. Both, transport companies (for hire and reward) as well as companies affiliated to other industries performing transport on own account were, as a first step, randomly selected from the members' database of the Austrian Economic Chambers (membership is mandatory for all companies based in Austria, the database is publicly accessible). They needed to have their own fleet of vehicles as a prerequisite to qualify for the survey. Manager of the selected companies being in charge of environmental management were then identified as competent target persons. In order to motivate them to take part in the survey they were approached by telephone and asked for their cooperation. The link (URL) to the online survey was eventually sent via e-mail to all those who agreed to complete questionnaire.

The online questionnaire contained predominantly closed questions and assessment of statements and was finally launched in July 2010 for a period of four months. It was divided into 6 main chapters and comprised a total of 44 questions. Table 1 illustrates the framework of the online questionnaire:

Table 1: Topics of the Survey

Main chapter	Focus	# of questions
1	Sustainability	6
2	Environmental management in general	8
3	Strategic outline of environmental management	12
4	Environmental measures	7
5	Transport related environmental measures	7
6	Socio-demographical data	4

4.1. Constructs

After completion of the survey, analyses were carried out as a stepwise statistical approach comprising two factor analyses and hypotheses testing. Resulting from factor analysis 1, 'attitude' (in the sense of the Theory of Planned Behavior (Ajzen, 1991) was categorized as

'attitude towards sustainability' and 'attitude towards environmental management'. The results reveal that *attitude towards sustainability* comprises seven items that broach the issue of sustainability in general by encompassing different topics. These cover aspects such as the understanding of social sustainability as well as motivating staff to act sustainably. Moreover, it also examines the importance of sustainability in decision-making processes, long-term goals or specific investment behaviour.

While *attitude towards sustainability* comprises statements reflecting rather general topics, *attitude towards environmental management* focuses on environmental management in particular. Here, the importance of certifications, environmental aspects within companies' decision-making processes as well as the general standing of environmental management (EM) is examined (see appendix for a detailed table which summarizes the factors).

Both factors were measured through aggregate responses to Likert-type scale questions¹ as to the extent to which sustainability and environmental issues are considered in the company. An exploratory factor analysis using the principal component method (with varimax rotation) was performed in order to establish the reliability and validity of the measures. The Kaiser-Meyer-Olkin (KMO) value of above .8 ('meritorious' according to Brosius (Brosius, 2006) verified sampling adequacy for the factor analyses. In accordance with Kaiser's criterion, factors with eigenvalues greater than 1 were retained. In addition, the course of the scree plot graph confirmed the two-factor solution for 'attitude' and the five-factor solution for 'practices'. They explained 59.86% of the variance. Items loading more than .4 on the same component were clustered in order to define the specific factors. In general, the factor analysis is based on the assumption that the single observed variables are subject to a specific number of non-observed 'background variables' (Brosius, 2006). Cronbach's alpha was used to verify that the aggregated scores of the items for each type were a reliable measure for each construct. The results indicated outstanding to acceptable levels of reliability for all constructs (Brosius, 2006), with Cronbach's alpha levels of .95 to .75.

Environmental performance was categorised in a second factor analysis, which yielded a five-factor (practices) result. It was measured through aggregate response to Likert-type scale questions² relating to the implementation of environmental measures. The factor *corporate management practices* comprises variables referring to specific strategic company measures and general policy. Legal compliance shows the highest weighting, reflecting its strong correlation to this factor (Brosius, 2006). Furthermore, *process optimization*, *corporate environmental identification* and *general resource protection* are also strongly linked to this factor. As it encompasses general policy outlines, a connection to the contents of other factors can be seen. For example, *employee education* and *general resource protection* is correlated to *corporate management practices* (reflecting the managers' general strategic attitude), while specific employee measures are subsumed under the factors *employee resource protection practices* and *corporate resource protection practices* respectively. Specific measures resulting in environmental improvement of cargo transport are subsumed under the factor *transport practices*. *IT Routing* shows the highest factor loading, followed by *EURO emission class trucks* and *optimization of tire pressure*. Furthermore, *general routing optimization*, *capacity check*, *aerodynamic* and *noise reduction* are strongly correlated to this factor. *Pollution reduction*

practices comprise measures that help minimize and optimize emissions. Here, variables like *alternative propulsion technology*, *greenhouse gas neutralization* and *efficiency programs* are strongly correlated to the factor. Due to the fact that emission reduction is often closely linked to the optimization of transport – particularly in transport-related companies – there is a connection between both factors for these variables. Measures focusing mainly on improving employee behaviour are summarized in the factor *employee resource protection practices* and comprise items like *efficient lighting*, *training programs*, *input of employee ideas*, and *encouragement of employees*. However, *heat insulation* shows the strongest correlation between the factor and the whole facility, and encompasses all the company's assets. Finally, specific measures concerning companies' protection of resources are subsumed under the factor *corporate resource protection practices*. It includes *protection of water* (highest loading), *optimization of electricity* or *recycling processes*. By accumulating all five scores, a general environmental performance indicator was compiled and given the term 'sum-score practices'. (A detailed overview of the contents of factors analysis 2 is provided in the appendix).

In accordance with factor analysis 1, exploratory factor analysis using principal components method (and varimax rotation) was performed. Again, a KMO measure of above .8 verified sampling adequacy for the factor analysis. Eigenvalues greater than 1 were retained. The course of the scree plot graph confirmed the five-factor solution for 'practices'. They explained 41.99% of the variance. Items loading greater than .4 on the same component were clustered in order to define the specific factors. All five environmental practice variables also showed very good levels of reliability with Cronbach's alpha levels of .88 for 'corporate management practices', .87 for 'transport practices', .82 for 'pollution reduction practices', .91 for 'employee resource protection practices' and .80 for 'corporate resource protection practices'.

Finally, 'holistic view' (of sustainable development) was measured through an aggregate response to dichotomous (0/1) questions relating to specific issues the managers personally associated with a comprehensive management concept. A scale from 0 (no holistic view) to 100 (total holistic view) reflects the respondents' degree of approval.

For hypothesis testing standard statistical methods suitable for examining the association between different variables were used. For hypothesis 1 linear regression analysis was performed; hypothesis 2 was tested using a correlation analysis and multiple regression analysis respectively; for hypothesis 3, Kolmogorov-Smirnov-, Mann-Whitney-U- and t-tests as well as Chi-Square tests were conducted.

5. RESULTS

For data compilation 900 managers were phoned, 259 of them registered in the online questionnaire, resulting in a satisfactory response rate of 29%. 70% completed the entire survey (30% dropout). Of all respondents, 43% were from the transport companies (transport for hire or reward) 47% of the respondents were affiliated with companies in other fields performing own-account transport, regularly. The remaining 10% did not reveal their sector affiliation. Company size was measured by the number of employees. While the ratio between transport

companies and businesses with own-account transport was balanced in medium-sized groups (< 250 employees), small businesses (< 50 employees) mostly belonged to the sector of transport companies and very large companies (≥ 250 employees) to other businesses.

In a next step, the proposed hypotheses were tested individually.

H 1: The broader a manager's holistic view (in terms of sustainable development), the stronger the attitude towards sustainable and environmental management.

As illustrated above, the construct for managers' holistic view was designed by aggregating responses relating to the personal perspectives of sustainability, with high scores indicating a broad holistic view. To test hypothesis 1 'holistic view' was regressed (linear regression) against attitude (categorised by 'attitude towards sustainability' and 'attitude towards environmental management').

Table 2: Results of Regression Analyses^a

	Attitude towards sustainability	Attitude towards environmental management
Holistic view		
B	.194**	.167*
Constant (SE B)	54.127 (4.054)	39.937 (5.182)
R ²	.038	.028
Adjusted R ²	.034	.024
F	8.958	6.515
N	230	230

^a Standardized coefficients are reported.

* $p < .05$;

** $p < .01$

Table 2 shows the results of the linear regression. For both attitude variables the inter-correlation is significant but small. Holistic view accounts only for 3.4% and 2.4% of the variation of sustainability and environmental management attitude respectively. Hence, there is a weak support for H1. However, it is assumed that there are other influencing variables. Moreover, a t-test proved no significant differences between transport companies and companies from other sectors with regular own-account transport regarding their holistic view of sustainability. Both groups showed mean values of approx. 50.³

H 2: The stronger the manager's attitude towards sustainable and environmental management, the better the environmental management performance of the company.

This hypothesis assumes that a strong attitude results in better actual performance. Table 3 provides the results of separate correlation tests for both 'attitude constructs' and the five 'practice constructs' showing significant positive relationships for all combinations.

Table 3: Results of Correlation Tests

	Corporate management practices	Transport practices	Pollution reduction practices	Employee resource protection practices	Corporate resource protection practices	Sum-score practices
Attitude towards sustainability Corr. (Pearson)	.219**	.218**	.242**	.337**	.155*	.333**
Attitude towards environmental management Corr. (Pearson)	.508**	.207**	.259**	.211**	.207**	.453**
N	191	191	191	191	191	191

* $p < .05$; ** $p < .01$

To measure the influence of attitude (both towards sustainability and environmental management) on the implementation of environmental measures, multiple regression analysis was used. The results are illustrated in Table 4.

 Table 4: Results of 6 Multiple Regression Analyses^a

	Corporate management practices	Transport practices	Pollution reduction practices	Employee resource protection practices	Corporate resource protection practices	Sum-score practices
Attitude sustainability B	.049	.166	.174*	.3**	.095	.2**
Attitude environmental management B	.491**	.150	.199**	.107	.174*	.384**
Adjusted R^2	.253**	.057**	.084**	.114**	.041**	.232**
F	33.115	6.7	9.682	13.28	5.025	29.75
N	191	191	191	191	191	191

^a Standardized coefficients are reported

* $p < .05$; ** $p < .01$

The significant effect size of an adjusted R^2 value of .232 for the 'sum-score practice' construct (stating that 23% of the variance of the practices can be explained by the two attitude constructs) and (highly) significant effects for the independent ($p < .01$) variables indicate the existing influence of attitude towards sustainability and environmental management on the implementation of environmental practices among companies in general.

Examining the results for the specific environmental practices, significant effects could be discovered in some cases. For example, environmental management attitude shows a significant effect on corporate management practices ($p < .01$) whereas sustainable attitude does not ($p >$

.05). The adjusted R^2 is .253, indicating that 25% of the variance of corporate management practices can be explained. On the other hand, sustainability attitude shows significant influences on employee resource protection practices while environmental management attitude does not, accounting for 11.4% of the variance. Both attitude variables show significant effects on pollution reduction practices, yet, with a rather low degree of association ($R^2 = .084$). For the transport practices the null hypothesis (independent variables do not explain any of the variance of the dependent variable) cannot be rejected and also for practices of corporate resource protection evidence of attitude effects appears to be missing. As regards transport practices, the results did not provide evidence that attitude influences the actual behaviour.

H 3: A considerable gap can be detected between the general awareness of sustainability issues and environmental management and the actual implementation of environmental measures in day-to-day business, which is supposed to be larger in the sector of transport for hire or reward than in the field of own-account transport.

The existence of a general awareness of sustainability and environmental management was tested using the two 'attitude factors' (see table 2). The analysis of sustainable attitudes resulted in a mean value of 65.3 (Median = 72; Standard Deviation (SD) = 24.7); for environmental management attitudes, the mean value was 52.1 (Median = 60; SD = 31.4) with 0 referring to a very negative and 100 to a very positive approach (N = 230⁴).

Out of the sample, 43% (111 companies) of the sample stated that they actively practice environmental management, whereas 57% (148 companies) said they did not. Due to the non-normal distribution⁵ significant awareness differences (applying a Mann-Whitney-U Test) between the active and non-active group with significantly higher values for environmentally active companies were found (mean values: active vs. non-active: 74 vs. 57 for 'attitude towards sustainability and 69 vs. 36 for 'attitude towards environmental management' at $p < .01$).

It could be found that transport companies tend to belong to the environmentally non-active group. A significant association between the operating sector and the affiliation to the non-active or active group was revealed by a Chi-Square-Test ($\chi^2 = 7,184$, $p < .05$). The reason most frequently given as to why companies are not environmentally active was 'lack of a need for environmental management', followed by 'too high costs' and 'possible competitive disadvantages'. Moreover, considering the profiles of the companies, the non-active companies are also rather small or medium-sized, whereas large companies tend to belong to the active group, which supports hypothesis 3.

6. DISCUSSION

The findings show that a broad holistic view of sustainability has a significant, but small direct influence on the companies' attitude towards sustainability and environmental management, which indicates the existence of other important factors, such as regulations, customer demand, social norm, perceived behavioural control and personality (Ajzen, 1991). As there is no

difference in this respect between road freight transport companies and other companies, it seems that market conditions and economic framework have no impact as regards a holistic view.

Although overall patterns in the data show that attitudes towards sustainability and environmental management have a significant impact on their environmental performance (in general as well as concerning specific practices), there are high variations and low statistical associations. Attitudes might support the implementation of certain practices. Yet, other factors appear to be the key drivers for environmental behaviour. Economic considerations are assumed to have a strong influence in this respect. These findings for the domain of road freight transport support the research of Gadenne et al. (2009).

Despite a balanced awareness of sustainability and environmental management in general, some differences with regard to the companies' specific sector affiliation were detected. Road freight transport companies clearly show lower levels of environmental management activity and performance than other own-account industries.

Although efforts have been made to gain maximum validity and reliability, the research presented is subject to some limitations. A sample survey needed to be carried out with all the statistical effects associated with it. Thus, non-response effects and sampling errors may have occurred – particularly with regard to the values presented, which are based on a low number of cases. A bias due to the fact that the survey was done online is regarded as negligible, as the business managers who represented the respondents usually have both internet access and sufficient knowledge in handling an internet questionnaire. However, the data stem from self-reporting which may imply a certain social desirability bias.

7. CONCLUSIONS

The purpose of this paper was to analyse the implementation of environmental management in the sector of road freight transport, drawing special attention to the domain's peculiarities and the influence of decision makers' holistic view of sustainability as well as their attitude towards sustainability and environmental management. By comparing the road freight transport companies to companies from other sectors which regularly perform own-account transport, their status quo on a cross-sector basis could be evaluated.

Based on the findings, it can be concluded that both transport companies and own-account transporters have considerable room for manoeuvre to increase their environmental performance. The detectable managers' attitude shows limited influence and the accepted need for environmental protection measures is currently still inferior to the pursuit of short-term profits and other economic goals. Systems thinking and the perspective of long-term sustainability and viability could be possibilities to increase environmental performance. Therefore, it is assumed that additional motivation to enhance the environmental sustainability of the road freight transport sector has to come from outside: on the one hand, from customers (be they individuals or businesses), and, on the other hand, from transport policy. Multi-instrumentality (Vieira et al., 2007) and the consideration of interactions between political

measures (Himanen et al., 2005) is needed, leading to improved incentive systems and – if needed – also legislation, which will eventually be adopted into corporate governance rules. In this respect, applying systems thinking – particularly the viable systems model (Beer, 1981) – could help to improve and alleviate the desperate situation and would probably have positive effects beyond the case of environmental management. Therefore a well-balanced package of coercive and non-coercive measures is useful in order to create a framework which does not impair economic activities but effectively serves to reduce negative impacts of transport (Vieira et al., 2007). It needs to be taken into account, however, that there can be significant interaction between measures. The aim should be an integrated system addressing the adverse effects of transport. Designing the system, acceptability of measures plays a crucial role (Himanen et al., 2005).

Although much effort has been made to realise a model shift which would increase the proportion of rail and water transport, all parties involved will have to take into account that most road transport is already short-haul. Thus, the room for further shifts is limited. Effective strategies should therefore focus on (1) avoiding unnecessary transport; (2) strengthening multi, inter- and co-modality and combined transport; (3) improving load factors and thus efficiency; and (4) using environmentally friendly (fuel-efficient) vehicles or promoting alternative propulsion techniques. At present, road freight transport companies cannot be blamed for choosing the cheapest and (from their perspective) most economic mode and means of transport as this reflects their main corporate responsibility. Transporting goods (by road) is the core business of (road freight) transport companies. Thus, avoiding transport is not their duty and liability as they would deprive themselves of their own economic base. In contrast, in an integrated system or in own-account transport, reducing transports, changing transport modes and/or a shift of transport means can be useful in terms of an economically efficient logistical strategy.

NOTES

¹ Scroll bar: 0 = very unimportant; 100 = very important

² Likert scale: unimportant – neutral - important

³ Scale: 0 → no holistic view, 100 → total holistic view

⁴ Companies that did not respond to respective questions were excluded from the constructs.

⁵ A Kologorov-Smirnov-Test indicated a deviation from normality ($p < .01$)

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APPENDIX

Table 1A: Results of Factor Analysis 1

Factor	Cronbach's Alpha	Item	Loading on factor	Explained variance
Attitude towards sustainability	.95	Long-term perspective of sustainability	.853	
		Sustainability in decision-making processes	.830	
		Management as a role model	.808	
		Staff motivation for sustainable action	.786	
		Social aspect of sustainability	.716	
		Importance regarding investments	.708	
		General standing of sustainability	.700	
Attitude towards environmental management	.75	General standing of EM	.841	
		Importance of certification	.766	
		Importance of EM in decision making process	.644	
				59.86%

Table 2A: Results of Factor Analysis 2

Factor	Cronbach's Alpha	Item	Loading on factor	Explained variance
Corporate management practices	.88	Legal compliance	.669	
		Process optimization	.641	
		Corporate environmental identification	.631	
		Resource protection in general	.630	
		Health care	.619	
		Certification	.606	
		Eco controlling	.567	
		Environmental reporting	.504	
		Employee training	.455	
		Sustainable aspects in communication	.417	
Transport practices	.87	IT routing	.719	
		EURO class trucks	.694	
		Optimization of tire pressure	.673	
		Routing optimization	.660	
		Capacity check	.588	
		Aerodynamic	.581	
		Noise reduction	.559	
Pollution reduction Practices	.82	Alternative propulsion technology	.678	
		Greenhouse gas neutralization	.644	
		Efficiency programs	.640	
		Emission reduction	.603	
		Alternative fuel	.585	
		Air pollution reduction	.461	
		Modal shift	.435	
Employee resource protection practices	.91	Heat insulation	.736	
		Efficient lighting	.736	
		Training programs	.604	
		Input of employee ideas	.573	
		Encouragement of employees	.568	
Corporate resource protection practices	.8	Water protection	.637	
		Eco electricity	.560	
		Recycling	.539	
		Self-supply of energy	.467	
		Use of passive houses	.451	
		Waste reduction	.447	
		Reduction of packaging material	.432	
		Use of biomass	.402	
				41.99%

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Sustainable performance across various sectors: a multiple case analysis

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ABSTRACT Sustainability has increasingly become a central business focus in times when most societies realise the critical industrial influence on both the environment and human health. Transport is the fastest growing sector in terms of the consumption of energy and the production of greenhouse gases in the European Union. Following a multiple case study approach, the paper compares the Austrian transport and logistics sector to the sectors of production of building material and wholesaling. It aims at providing insights as to why there are differences in the environmental performance among the sectors. This is done by identifying the specific characteristics of the transport and logistics sector concerning environmental protection and explaining the respective influencing factors. The data of each case study was analysed anonymously for each company and sector followed by a cross-sector analysis. The findings show that there is a general awareness for sustainability across all sectors; however, the behavior differs considerably. Compared to the wholesalers, transport and logistics companies appeared to behave environmentally friendlier. Based on our findings, we propose implications for improving the environmental behavior of transport and logistics companies.

Keywords: sustainability, transport sector, logistics sector, Austria

1. INTRODUCTION

Environmentally-friendly activities have become increasingly popular in many industries over the last years. However, companies do not introduce environmental management just for the sake of it; there needs to be some business rationale for taking decisions to go green. In all cases, managers must believe that there is either a direct or an indirect advantage. For example, some actions improving a company's environmental performance might also raise revenues and profit; others change the company's image and thus – indirectly – have a positive impact on its income. Further influencing factors include legitimization and ecological responsibility (Bansal and Roth, 2000). What distinguishes "environmental" measures from "sustainable" ones, however, is the motivation for taking these measures. If an action is taken to reduce costs in the short term only and ignores possible systemic relations with other parts of the business, it will be less useful than a long-term strategy based on a holistic view considering systemic interaction (Dahlmann et al., 2008; Espinosa et al., 2008).

This article examines the framework of such management decisions. Recent business research has focused strongly on sustainability matters, particularly on shaping definitions, investigating aims and motivations, examining the role of attitudes and commitments as well as the effects of sustainability on companies, the economy and society. The importance of sustainable behaviour already became evident in research a long time ago; the practical implementation of the results of this research differs among industries, with some of them severely lagging behind

others (Jänicke et al., 1997). But what drives companies within certain industries while those in others largely deny it? A variety of factors may play a decisive role, such as the legal framework and general economic conditions; the awareness of the general public and of customers about sustainable measures and thus also the company's public exposure; company size; and the competitive situation the business faces (Gadenne et al., 2009; Hart, 1995; Hillary, 2004; Porter and van der Linde, 1995; Russo and Fouts, 1997; Walley and Whitehead, 1994).

The existence of significant differences between sectors has already been proven empirically (Jänicke et al., 1997). The reasons for such disparities, however, still need to be revealed. In light of the present economic situation and in view of current social developments, there is little doubt that sustainability has to be achieved in order to save future generations from significantly poorer living standards.

In this respect, we discussed the matter with company representatives from selected sectors, namely industrial manufacturing, transport and logistics, and wholesale and retail trade (represented by the sectors C, G and H of NACE Rev. 2 and the ISIC Rev. 4 classifications) (Eurostat, 2008). Austria offers an optimal framework for this research as the country is a full member of the European Union, one of the largest harmonised common markets with vast and harmonised legal frameworks, a well-developed industry and service sector and a high degree of environmental performance.

This paper aims to analyse and investigate the significance and relevance of environmental management in the sectors mentioned above by discussing reasons for going green and the impact of this on efficiency and effectiveness. It also examines the integration of environmental management into the overall management concepts and strategies of the company.

The structure of the article is as follows. Section 2 provides information on the background and a state-of-the-art literature review. Thereafter the methodological approach and the data gathered are described (Section 3). The results of our cross-case and cross-sector analyses are provided in Section 4 and discussed in Section 5. The paper ends by drawing conclusions and presenting some implications which can be derived from our findings.

2. BACKGROUND

"Environmental management" (EM) refers to the objectives, decisions, organisation, action, control and corrective actions within a company which are oriented at ecology and the environment (Müller-Christ, 2001). Additionally, these activities have the ultimate aim of reducing a company's environmental pollution and (negative) impact to a minimum (Baumann et al., 2005). At the time EM first emerged, it was considered hardly more than complying with the relevant rules and regulations, but after some time it became clear that solutions with more positive effects for the company and the environment were also achievable (Walley and Whitehead, 1994). More recent perspectives argue that environmental management should be embedded in a holistic and systemic approach in order to be successful, starting at the operative level, extending to the strategic and normative management levels (Schwaninger, 2003) and eventually heading for corporate sustainability (Brown et al., 1987; Daily and Ehrlich, 1996;

Goodland and Daly, 1996). There are manifold reasons for companies to implement EM, including several general, external and internal influencing factors (Bansal and Roth, 2000; Wittstruck and Teuteberg, 2012).

Among others, general factors include the size of a firm (Aragón-Correa, 1998; Brammer et al., 2011; Dahlmann et al., 2008; Gadenne et al., 2009; Hillary, 2004) as well as its sector affiliation – which will be outlined in detail later in this article – as there is a correlation between a particular industry or sector and the degree of “unsustainable” processes. Hence, some industries have a lower basis to start from, the transport sector being a case in point (European Environmental Agency, 2000). In this domain, there is a greater need, but therefore also greater potential, for improvements (Roth and Kaberger, 2002). Furthermore, the competitive situation is highly relevant as it determines the company’s ability to finance sustainable investments (Fürst and Oberhofer, 2012). Finally, a company’s international operations also play a role as such companies are usually more eco-friendly than companies with a domestic focus (Delmas and Toffel, 2004; González-Benito and González-Benito, 2006, 2010).

Regulations and stakeholder interests – e.g. the requirements of customers and the general public – make up the most prominent external factors (Alniacik et al., 2011; Gunningham et al., 2004). A business’s visibility usually determines the amount of pressure it is exposed to (Bowen, 2000). The position of a company within the supply chain is also crucial: the closer a company is to the end user, the more emphasis is put on sustainability and the better its environmental performance will be (Handfield et al., 1997; Walker et al., 2008). Additionally, business partners or suppliers (B2B), as well as parent companies or NGOs, can substantially influence a company’s environmental behaviour (Delmas and Toffel, 2004; Dong et al., 2001).

Finally, internal factors cover managers’ attitudes (Ajzen, 1991, 2005; Fishbein and Ajzen, 1975; Plaza-Úbeda et al., 2009; Sweet et al., 2003; Winn et al., 2012) as well as efficiency and profitability (Hahn et al., 2012). Regrettably, costs and benefits in the context of environmental management are not easily quantifiable, which should not, of course, lead to the conclusion that highly beneficial situations do not exist. Eventual benefits depend highly on a company’s environmental efficiency (Alberti et al., 2000), since a surplus can be generated through the realisation of opportunities for increased revenues and reduced costs (Ambec and Lanoie, 2008). Boiral et al. (2011) showed that firms committed to environmental protection tend to record a better financial performance than other firms. More recently, sustainable actions have been identified as value-adding by improving efficiency, saving costs and thus ensuring the company’s existence (MIT Sloan Management Review and The Boston Consulting Group, 2012; Semchi-Levi, 2010). Operating in extremely competitive environments and being exposed to enormous customer pressure – particularly in times of limited growth – companies seem to be reluctant in investing in capital intensive initiatives, such as environmental measures. Consequently costs and profitability appears to remain the most decisive impact factor for environmental behaviour (Bretzke and Barkawi, 2010).

In the three sectors which are in the focus of our empirical research, there is substantial need for gradational environmental improvements and sustainable management. Among the various sectors, transport accounts directly for 13.1% of the global GHG emissions (24% in the EU-27 (Eurostat, 2011)). Another main source of GHG emissions is the energy sector (25.9% globally,

37% in the EU-27), while industry (manufacturing) accounts for 19.4% and 22% globally and in the EU-27, respectively. Agriculture plays a somewhat minor role (13.5% globally, 13% in the EU-27) (Eurostat, 2011; IPCC, 2007). Hence, road transport and industry are among the major sources of CO₂ emissions (Eurostat, 2010). The manufacturing sector (producing goods), the wholesale and retail sector (distributing goods) and the transport and logistics sector (responsible for the transport in between of those) are therefore important players in terms of environmental improvements. However, it remains unclear as to whether the businesses involved see the need for, show the willingness to and have the capability of achieving fundamental environmental improvements (Oberhofer and Fürst, 2012; Thornton et al., 2008). Referring to the factors mentioned above which influence the introduction and adoption of EM, this study investigates the differences between three sectors. We argue that despite a general awareness and acknowledgement of the need for EM-related measures which can be found at companies regardless of a specific sector affiliation, differences exist between the sectors indicated. For instance, the intensity to which a company is exposed to various impact factors may affect its willingness to implement change (Delmas and Toffel, 2004; González-Benito and González-Benito, 2010; McKinnon, 2010). End-user pressure, for example, is very low for transport companies, whereas demands from business partners and customers (B2B) play a more important role. The sectors also vary in terms of market pressure (i.e. the number of market players and thus the competitive situation), average firm size, public exposure and operating area (i.e. whether they act nationally or internationally). As these factors have been reported as important, we investigate – in light of the differences due to specific sector characteristics – how they actually influence investments in environmental measures of manufacturing, wholesale and retail as well as transport and logistics companies.

3. METHOD AND DATA

A case-based approach with multiple field studies and personal interviews was used to identify and evaluate the environmental practices of the companies and to discuss the role of profitability and other influencing factors. The Research was based on multiple data sources by combining primary interview data (semi-structured interviews; see table 1) with secondary data (Yin, 2002), such as media reports and information from corporate websites.

Table 1: Structure of the interview

Development corporate environmental management	
Q1	How did environmental management develop in your company over time?
	Evaluation of various factors of influence
Q2	How does profitability affect environmental management decisions?
Q3	How do regulations affect environmental behaviour?
Q4	How do stakeholders (society, customers, partner companies, etc.) affect the company's environmental behaviour?
Illustration of specific environmental measures	
Q5	Which specific measures had a positive impact on the overall business performance? Please specify with "costs and benefits".
Problems and outlook	
Q6	Did any problems arise during the implementation of EM measures?
Q7	Which specific measures would you predict have the highest potential?

An important step in case study research is the sample selection. Eisenhardt (1989) proposed four to ten cases while more recently Yin (2002) recommended using six to ten cases, arguing that these provide sufficient evidence. The choice of particular cases depends on the setting, people and social processes (Miles and Huberman, 1994). To keep the results from the three sectors comparable and coherent, we decided to concentrate on a certain field within each of the three sectors. Thus, we first targeted large, internationally operating transport and logistics companies that only focus on freight transport and logistics. In the sector of industrial manufacturing, we chose to concentrate on the production of building material. There are some large companies in Austria representing this industry which – as is also the case in the field of transport and logistics – serve both national and international markets. As these two industries also share an orientation towards B2B rather than B2C, we also used this criterion when selecting companies from the trade sector and concentrated on wholesalers of food and beverages. Out of several thousand businesses, the company chosen from each of the three respective sectors in Austria rated among the top 30 companies of the field according to turnover. Large companies were deliberately chosen based on existing evidence that they (1) are more exposed to public monitoring; (2) have more funds at their disposal for EM or social activities; and (3) do not suffer from problems found in SMEs such as limited employee resources, knowledge and capacities to focus on topics that do not belong to their core competences (Gadenne et al., 2009; Gunningham et al., 2004). Finally, we ended up with a set of twelve cases (four from each domain) which are operationally similar within their group/cluster, but largely different in other respects.

Table 2: Key facts of case study sample (numbers are rounded to ensure anonymity)

Sector	Company	Global Turnover 2011/12 in € bn. (Austria)	Global Employees (Austria)
Transport	A	20.00 (1.50)	96,000 (5,000)
	B	2.00	11,000
	C	1.50	1,500
	D	0.60	2,000
Production	E	2.00 (0.10)	13,000 (400)
	F	15.5 (0.10)	68,000 (370)
	G	0.10	600
	H	0.20	500
Wholesale Trade	I	0.20	700
	J	0.30	1,000
	K	0.30	900
	L	0.40	1,000

The data of each case study was first analysed on the basis of the individual company and further used for a cross-case analysis.

4. CASE STUDY ANALYSIS

4.1. Sector-Specific Case Study Analysis

A single case analysis was conducted using the following steps. First, a general description of the company was prepared, with special emphasis on the actual implementation of environmental management. Factors inducing or hindering EM-related activities were assessed in particular and the economic perspective was identified in relation to other factors including legislation and stakeholder interests (i.e. Customer, Society, Business Partner). Furthermore, some specific EM measures were described, followed by a discussion of their impact on both environmental performance and the overall performance of the company. The individual analysis concluded by depicting barriers and by giving a forecast of expected developments.

4.1.1. Sector 1 Transport and Logistics

The following table presents the “within-case” analysis of four companies from the sector of transport and logistics (see table 3):

Table 3: Summary of cases in transport and logistics

	Key figures (worldwide)	Integration of sustainability/EM	Influencing Factors		
			Profitability	Regulations	Stakeholders (Customer, Society, Business Partner)
A	<ul style="list-style-type: none"> Transport and logistics service provider (road, air, sea, specialised logistics solutions) Operating globally 96,000 employees worldwide (5,000 in Austria) Worldwide turnover 2011: €20.00 bn. (in Austria: € 1.50 bn.) 	<ul style="list-style-type: none"> Board strongly supports sustainability Incorporated into CI Sustainability has been part of corporate culture since 1990s → pioneers of EM in transport & logistics sector 	<ul style="list-style-type: none"> Central decision criteria Long-term perspective Exceptions for cost-intensive EM projects → regular amortisation time can be expanded 	<ul style="list-style-type: none"> Regarded as essential Basis for motivation and acceleration of innovative corporate measures 	<ul style="list-style-type: none"> Important influence of customers/business partners Increasing environment-related customer requests
B	<ul style="list-style-type: none"> Logistics service provider (formerly state owned) Focus on Austria plus Central and South-Eastern Europe 11,000 employees Turnover 2012: €2.00 bn. 	<ul style="list-style-type: none"> Of minor concern due to difficult economic situation Listed in mission statement Ambitions towards sustainable employee behaviour 	<ul style="list-style-type: none"> Central decision criteria No exceptions for non-profitable projects 	<ul style="list-style-type: none"> Regarded as very important Suitable for improving the overall environmental situation 	<ul style="list-style-type: none"> In recent past, only few customer/business partners requests were monitored Increasing inquiries lately
C	<ul style="list-style-type: none"> Specialised in European full-truck loads (family-owned) European focus 1,500 employees Turnover 2012: €1.50 bn. 	<ul style="list-style-type: none"> Support of Board of Directors, holistic view Pioneers in sustainable logistics Stagnating performance in past few years New ambitions to claim back position of sustainability leader in the logistics sector 	<ul style="list-style-type: none"> Major role Only profitable measures are implemented 	<ul style="list-style-type: none"> Regarded as a decisive and necessary factor 	<ul style="list-style-type: none"> Customers/Business partners are the driving force Integration of customers into the creation of innovative sustainable solutions
D	<ul style="list-style-type: none"> Specialised in transportation and integrated logistics (family owned) Operating globally 2,000 employees Turnover 2012: €600 m. 	<ul style="list-style-type: none"> Board supports sustainability approaches Foundation of "environmental association" in 2007, ISO 14001 certification in 2008/09 Listed in mission statement, integration of employees (first sustainability report in 2010) 	<ul style="list-style-type: none"> Central decision criteria No definition of specific environmental goals; however, environmental aspects are considered in every investment 	<ul style="list-style-type: none"> Regarded as important and essential for overall improvement of the transport and logistics sector 	<ul style="list-style-type: none"> Customers play a decisive role Customers in individual emissions calculation

In general, the awareness for the importance of sustainability is strong. However, significant differences could be found among the companies analysed. Company A can clearly be labelled as an “environmentally progressive” firm. It has had a holistic environmental orientation for many years and has integrated a broad range of environmentally friendly measures covering several corporate fields. The company started to respond to customer demand early and regarded environmental protection as an important way of being competitive in the long run. As a result, sustainability has become a key component of its corporate identity. Compared to company A, the others appear to lag behind in terms of environmental protection activities. However, they can be subdivided into environmentally “stagnating” and “ambitious” companies. Company B seems to be stagnating somewhat as – considering its size (employee number and turnover) – environmental activity appears to be poor (e.g. number of measures or projects, unsatisfactory quality of sustainability reports). Furthermore, a long-term ambition to move towards increased protection of the environment is absent. On the other hand, we could identify companies C and D as being very ambitious concerning their environmental behaviour. They have recently initiated new steps towards holistically-orientated environmental management. This is also strongly supported by their management boards and closely related to customer and partner requests. For company D, on the one hand, sustainability is a relatively new topic. Due to limited resources, it is not able to realise a broad range and large number of projects immediately; however, it has introduced a strategic orientation that is based on a long-term perspective and recently published its first sustainability report. On the other hand, company C – after a period of stagnation, presumably due to a difficult economic situation – hopes to regain its position as one of the leaders in sustainable transport and logistics operations in Austria.

Table 4 illustrates successfully implemented measures derived from the cases of the transport and logistics sector which could be included in the “road map” for other companies.

Table 4: Environmental measures taken by transport and logistics companies in our sample

Eco-efficient vehicles	<ul style="list-style-type: none"> • “Natural gas” vehicles / EURO 5 class and above • High initial investment costs, expected economic pay-off in the long run • Reduction of CO₂ emissions
Shift from road to rail / Inter-modal transport	<ul style="list-style-type: none"> • Reduction of CO₂ emissions • Reduction of negative external effect
Transport Bundling / Route optimization	<ul style="list-style-type: none"> • Reduction of CO₂ emissions • Reduction of empty mileage
Calculating tool	<ul style="list-style-type: none"> • Free-of-charge online tool for calculating environ. balance of global supply chains across all modes of transport • Co-operation with renowned German research institutes
Driving training	<ul style="list-style-type: none"> • Optimisation of road behaviour • Monitoring of effects through on-board units • Fuel savings and reduction of CO₂ emissions
Eco-efficient warehousing	<ul style="list-style-type: none"> • Optimisation of heating systems (chopped goods combustion, gas heating including molecular vaporiser), electricity, cooling systems, photovoltaic systems

4.1.2 Sector 2 Production of Building Materials

The case study results of four companies from the “production of building materials” sector are presented in table 5.

Table 5: Summary of cases in the production sector

	Key figures (worldwide)	Integration of sustainability/EM	Influencing Factors		
			Profitability	Regulations	Stakeholders (Customer, Society, Business Partner)
E	<ul style="list-style-type: none"> World's largest producer of bricks Operating globally 13,000 employees worldwide (400 in Austria) Worldwide turnover 2011: €2.00 bn. (in Austria: € 100 m.) 	<ul style="list-style-type: none"> Board strongly supports sustainability Incorporated into Business Strategy First attempts in 2004; first sustainability report in 2010 Holistic view: besides environmental protection, strong focus on social factors (i.e. safety, health, diversity, donations to aid organisations) 	<ul style="list-style-type: none"> Main decision criteria Detailed cost-benefit analysis by experts Important factor for financial success 	<ul style="list-style-type: none"> Regulations have a high impact Companies confronted with a variety of legal restrictions Exceeds requirements 	<ul style="list-style-type: none"> All stakeholder have important influence
F	<ul style="list-style-type: none"> World leader in building materials Operating globally 68,000 employees worldwide (370 in Austria) Worldwide turnover 2011: €15.5 bn. (in Austria: € 100 m.) 	<ul style="list-style-type: none"> Deeply rooted in corporate identity First sustainability report in 2002 Integrated part of the company Very detailed, well documented and structured measures and concepts Holistic view of sustainability including a broad variety of social and ecological projects 	<ul style="list-style-type: none"> Economic factor not predominant High priority for social and ecological projects 	<ul style="list-style-type: none"> Very important Strong orientation towards and compliance with legal framework 	<ul style="list-style-type: none"> All stakeholders play a decisive role Demand is perceived mainly from society (neighbours of production side) while customers and business partners seem to be less interested
G	<ul style="list-style-type: none"> Specialised in wood processing and manufacturer of parquet floors (family-owned) Focus on the Austrian market 600 employees Turnover 2011: € 100 m. 	<ul style="list-style-type: none"> Support of CEO Focus on environmental sustainability Collaborations with official organisation and standardised programmes 	<ul style="list-style-type: none"> Major role Long-term strategic thinking; acceptance of short-term losses if pay-off in long run 	<ul style="list-style-type: none"> Less important due to proactive behaviour 	<ul style="list-style-type: none"> Customer orientation is central Customer education and awareness raising
H	<ul style="list-style-type: none"> Building material manufacturer (cement, lime, screed); (family owned) 	<ul style="list-style-type: none"> CEO has supported sustainability since 2000 	<ul style="list-style-type: none"> High investments in sustainable (pioneer) projects Acceptance of high initial investments 	<ul style="list-style-type: none"> Seems to be less important due to proactive behaviour 	<ul style="list-style-type: none"> Majority of customers and business partners are not interested in

<ul style="list-style-type: none"> • Focus on the Austrian market • 500 employees • Turnover 2011: €200 m. 	<ul style="list-style-type: none"> • Integrated part of the corporate strategy • Ambition to be pioneers in the sector in the long run • Employees are a central part of their understanding of sustainability 			sustainability and sustainable products <ul style="list-style-type: none"> • Society as main driver
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The integration of ecological sustainability is strong in the cases in the construction sector and has been integrated into the companies' corporate identity for many years. Although being a central criterion for investment decisions, the economic factor is not solely decisive and short-term losses are accepted in order to carry out environmental activities. This is due to the long-term strategic thinking of the decision makers. Social (aid) projects are often a focus of the companies analysed. Consequently, sustainability is viewed holistically (comprising ecological, social and economic aspects). In general, customers are not regarded as a major driving force in terms of environmental protection; however, society (e.g. neighbours, NGOs, etc.) does appear to be influential.

Differences in the environmental behaviour within our sample could be identified, particularly between large/international and smaller/national companies. Large/international companies – in our sample companies E and F – are oriented towards simply meeting existing regulations. In contrast, the smaller companies (G and H), which operate nationally, seem to be proactive in complying with the legal framework. In particular, smaller, family-owned companies focus on innovative niches in order to stay competitive in the long run, resulting in good sustainable behaviour. This could be due to a stronger focus on retaining employees and passing the company on to the next generation. Successfully implemented measures from the cases of the production of building materials sector that could be included in the “road map” for other companies are illustrated in table 6.

Table 6: Environmental measures taken by production of building materials sector in our sample

Energy mix optimisation	<ul style="list-style-type: none"> • Optimisation of the energy mix through renewable energy sources and reuse of waste • Reduction of CO₂ emissions • Improved energy efficiency
Sustainable production	<ul style="list-style-type: none"> • Investments in sustainable production machine (thermic renewable) • Reduction of carbon-intensive building material compositions • Reuse of waste • Reduction of CO₂ emissions
CSR projects	<ul style="list-style-type: none"> • Support of humanitarian projects and disaster relief through financial aid and provision of materials
Sustainable transport and logistics	<ul style="list-style-type: none"> • Optimisation of routing • Sustainability considered in tender offers of transport companies • Investments in innovative and automated conveyors for raw materials to replace road transport • Reduction of CO₂ emissions, dust and noise

4.1.3 Sector 3 Wholesale Trade Cases

The four cases from the sector of wholesale trade are presented in table 7:

Table 7: Summary of cases in wholesale trade

	Key figures (worldwide)	Integration of sustainability/EM	Influencing Factors		
			Profitability	Regulations	Stakeholders (Customer, Society, Business Partner)
I	<ul style="list-style-type: none"> Family-owned wholesaler in the food and non-food industry in Austria 700 employees Turnover 2012: €200 m. 	<ul style="list-style-type: none"> Integrated in corporate identity since 2007 Both ecological and social projects are implemented Long-term orientation 	<ul style="list-style-type: none"> Economic factor is central decision criteria 	<ul style="list-style-type: none"> Legal framework regarded as "minimum-standard" for sustainable behaviour 	<ul style="list-style-type: none"> Customers and business partners demand eco-friendly behaviour
J	<ul style="list-style-type: none"> Group consisting of ten private wholesalers in Austria 1,000 employees Turnover 2012: €300 m. 	<ul style="list-style-type: none"> General awareness for the importance of sustainability However not sufficiently integrated No sustainability report and no information available on their homepage Strategic decisions on sustainability are not centralized – each wholesaler is responsible for own initiatives 	<ul style="list-style-type: none"> Profitability is decisive factor 	<ul style="list-style-type: none"> Decisive for sustainable behaviour 	<ul style="list-style-type: none"> Customers are not willing to pay additional costs for sustainable performance; low prices most important for them
K	<ul style="list-style-type: none"> Food- and Non-Food Wholesale industry operating in Austria (part of an international company group) 900 employees Turnover 2012: €300m. 	<ul style="list-style-type: none"> Awareness of sustainability – integrated into parent's corporate identity in 2008 First sustainability report of company group in 2009 	<ul style="list-style-type: none"> Major role However in some cases profitability is pushed into the background for the sake of product quality, safety, image, etc. 	<ul style="list-style-type: none"> Legal framework is important for sustainable behaviour 	<ul style="list-style-type: none"> rice-sensibility of customers is particularly high in the wholesale industry compared to other companies in group (i.e. retailers)
L	<ul style="list-style-type: none"> Food- and Non-Food Wholesaler in Austria (part of an Austrian company group) 1,000 employees Turnover 2012: €400 m. 	<ul style="list-style-type: none"> Little but growing awareness for sustainability Not communicated in the corporate identity No sustainability report, only little information on the corporate website 	<ul style="list-style-type: none"> Decisive factor 	<ul style="list-style-type: none"> Proactive behaviour No legislative influence except some regulations in transport and logistics 	<ul style="list-style-type: none"> Customer orientation through focus on product quality and organic food

Since they lack contact with the end customer, the selected wholesale companies appear to behave rather unsustainably. Ecological and social principles are poorly integrated into the corporate identity and awareness has risen little in recent years. For companies which are part of large groups including retailers with end-user contact, environmental awareness and proactive behaviour is stronger (e.g. company K in our sample). This is mainly due to centralised strategic management decisions affecting all group members. Nevertheless, profitability is the main driver for these decisions as the sector is closely oriented towards customer demands. Finally, minimum standards defined by the legal framework are met but there is not much activity beyond compliance.

Exemplary sustainable measures from the wholesale industry are illustrated in table 8.

Table 8: Environmental measures taken by wholesale trade sector

Energy-efficiency	<ul style="list-style-type: none"> • Investments for improving the energy-efficiency of sites and warehouses • Reduction of CO₂ emissions
Product quality	<ul style="list-style-type: none"> • Support of product quality and organic food projects
Sustainable transport and logistics	<ul style="list-style-type: none"> • Optimisation and innovation in vehicle fleet • Reduction of CO₂ emissions and fuel consumption

4.2. Cross-Sector Analysis

An awareness of sustainability can be seen across all sectors. However, the integration into corporate strategies differs. The *Production of building materials* sector has faced sustainability issues for many years. This is shown in comprehensive and well-structured sustainability reports as well as a holistic approach to sustainability which includes a variety of social and ecological goals and projects. In contrast, the *Transport and logistics* sector has rather recently integrated sustainability, particularly environmental protection, into its corporate strategies, while a positive trend towards increasing environmentally friendly behaviour can be observed. However, there are still companies where sustainability is of minor concern, mainly due to a difficult economic situation. In the *Wholesale* industry, sustainability appears to be not yet integrated, resulting in very few initiatives and poor reporting. Due to the lack of contact with end-users, the external influence is weak. Their main customers, which are gastronomy companies (bars and restaurants) see no additional value and are unwilling and unable to transfer higher costs to their customers.

Throughout the whole sample, profitability plays a decisive role for sustainability investments. Nevertheless, some exceptions apply, particularly for social projects in the *Production of building materials* sector. The regulatory framework is generally respected; for the *Transport and logistics* and *Production of building materials* sectors, compliance is an important driver for sustainable behaviour, though companies from the latter seem to be proactive and often go beyond mere compliance. In contrast, the legislative framework plays a minor role for

Wholesalers as they do not belong to manufacturing industry and thus do not face such stringent regulations.

Customers and business partners strongly influence the sustainable behaviour of all companies. Customers, being companies themselves and thus operating in a competitive environment, are not willing to pay additional costs for environmental initiatives, mainly because the product and service quality is not improved. Only companies from the *Production of building materials* are encouraged to behave sustainably as they are monitored by society both directly and indirectly. The resulting initiatives of the companies from the different sectors vary in terms of cost and time intensity as well as the width and breadth of sustainability. Companies from the *Production of building materials* sector invest in cost- and time-intensive measures (e.g. production machines and sites) and approach sustainability holistically (i.e. from a social, ecological and economic perspective). Although *Transport and logistics* companies also invest in cost- and time-intensive projects (e.g. the modernisation of fleet and warehouses as well as route optimisation), they only address ecological and economic sustainability issues. Similarly, measures taken by the *Wholesalers* are also only focused on ecological and economic sustainability and tend to be less cost-intensive than in the other sectors.

4.3. Limitations

The study presented in this article is subject to some limitations. First, only a selected number of companies from three different sectors have been analysed. Though this is in line with the methodological requirements and the research has a primarily qualitative character, this means generalisability is limited to compatible contexts. Controlling for the validity of inductively generated statements therefore would require further quantitative/confirmatory work. Data collected through interviews and information addressing the general public may include some social desirability bias, and an inter-expert bias (resulting from the different personalities and context of the respondents) should also be considered. Despite guaranteeing strict confidentiality, it is possible that respondents might have tried to protect their companies' reputation. Moreover, a clear focus was put deliberately on large and very large companies and their respective environmental behaviour and thus small firms were not the focus of our projects. While both environmental performance and individual environmental impact can be deemed limited, it should not be ignored that in a small-scale economy the cumulative impact of these is significant.

5. DISCUSSION AND CONCLUSION

In this paper, we analysed the sustainability orientation of companies from three sectors. Transport and logistics companies were compared to wholesalers of food and beverages as well as producers of building materials. Our study focused on the integration of sustainability into corporate identity, the role of profitability, the impact of the (regulatory) framework and the influences of stakeholders. The research contributes to the ongoing discussion about the integration of environmental management in various sectors. Being among the most harmful

sector in terms of CO₂ emissions and energy consumption, the sector of transport and logistics is discussed in detail. In order to benchmark the sector to other industries we compared the performance of transport companies to wholesaling companies as well as producers of building material.

The findings showed that there is a general awareness of sustainability across all sectors (Fransson and Gärling, 1999); however, the behaviour of the companies across each sector differs considerably. Among the sectors analysed, wholesaling companies proved to be the least environmentally friendly. Compared to the wholesalers, transport and logistics companies appeared to act in a more environmentally-friendly manner. Although both sectors suffer from high price pressure, the customers of transport and logistics companies increasingly require sustainable behaviour, resulting in improved environmental performance and more sustainable management among transport and logistics companies. Due to a lack of financial resources for measures that do not pay off in the short term, environmental activities are generally the side effects of economic decisions. This is also reflected in the strong orientation towards the legal framework. Moreover, society views transport as a main source of pollution, thus imposing pressure on companies for improved eco-friendliness. As a consequence, these companies tend to focus on environmental initiatives rather than on social projects.

Compared to the producers of building materials, however, transport and logistics companies also lag behind in terms of sustainability. Producers of building materials approach sustainability in a more holistic way and invest in cost-intensive measures. While they are able to pass on the increased costs of related ecological and social investments to the products, the customers of transport and logistics services are not willing to pay additional costs, regularly being companies themselves. Transport is not yet covered by the EU Emissions Trading Scheme (ETS), whereas the producers of building materials are to a minor extent. Our findings thus support Salzmann et al. (2005) and Banerjee et al. (2003), who identified industry affiliation as a moderator of environmental management practices. Further quantitative empirical research is needed to specify influential sector characteristics. To further improve environmental behaviour in the transport and logistics sector, we suggest supporting companies by providing incentives for investments in new technologies as well as increasing training and education on environmental behaviour and communicating successful examples.

In general, two main factors seem to have an important impact. On the one hand, the position in the supply chain influences companies' sustainable performance as companies with end-consumer contact face more demands for sustainable behaviour. Often these companies transfer these requests to transport and logistics companies which represent the connection points in large supply chains (mainly without end-consumer contact) and consequently are also externally forced to increase sustainability initiatives. Wholesalers, in contrast, are not confronted with end-user demands and additionally do not feel any pressure from their business partners up- and downstream in their supply chains. Sustainable behaviour is therefore mainly motivated 'from the inside' (philosophy, personal interest of decision-makers, etc.). The final customers of construction and building material are directly connected to the manufacturer by 'using' the product although intermediaries and distributors (e.g. wholesalers and transport and logistics companies) might be interconnected. The advantages and disadvantages of

sustainability measures and quality are always connected to the product (and its producer) in the long run. Companies in this sector therefore are considerably more aware of sustainability issues. On the other hand, company structure also appears to be decisive. Independent of belonging to a sustainably-proactive sector or not, certain structural factors, such as ownership (e.g. family-owned companies) or product specialisation (e.g. niche products) seem to support sustainable behaviour. Being oriented towards the long term, family-owned companies invest in cost-intensive initiatives with longer amortisation times as they do not have to report to external shareholders (Belz and Schmidt-Riediger, 2010; Block and Wagner, 2013). Moreover, many suppliers of sustainable goods and services still operate in niche markets (Schaltegger and Wagner, 2011). In conclusion, while this study focuses on a relatively small number of companies, it indicates clearly that attitude towards and the implementation of sustainability measures differ both across and within sectors. While some of the influencing factors for these are external, others are internal. The cost of implementing sustainability measures and the possibility of passing these costs onto customers directly or indirectly are particularly crucial in all sectors. Consequently, the study opens up clear avenues for further research to examine whether this is also the case in other sectors and on a larger scale.

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Malignant manipulation at work: a qualitative exploration of strategies and tactics

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ABSTRACT This paper focuses on the subtle tactics of malignant manipulators at work, persons who attempt to make others feel good but who in the background display manipulative behaviour towards those others and/or their associates, irrespective of potentially negative implications for their target. Building on previous research into the dark side of organizational and working life, we used qualitative in-depth information obtained from the targets of malignant manipulators in order to advance existing knowledge. In the course of our research, we identified a number of new tactics, yielding concrete and in-depth information on tactics that in the past had often been abstractly defined, and suggesting a procedural view of the phenomenon which can then both inform further theoretical and/or empirical research and also be used by practitioners to establish organizational policies for tackling the problem of malignant manipulation.

Keywords: dark side, manipulation, ingratiation, Machiavellianism, organizational (mis)behaviour

1. INTRODUCTION

Inspired by research on corporate bullies (James, 2012; R. Sutton, 2004; R. I. Sutton, 2007) and corporate psychopaths (Paul Babiak & Robert D. Hare, 2006), this study employs a grounded theory approach to explore a phenomenon which we label ‘malignant manipulation’, in which a manipulator seeks to make another person feel good while in the background displaying manipulative behaviour towards that person in order to further self-interest, irrespective of potentially negative implications for the target and/or for the organization.

This type of behaviour is described in several academic discourses, ranging from the dark triad – Narcissism, Machiavellianism and psychopathy – in leadership (Paulhus & Williams, 2002; Spain, Harms, & LeBreton, 2013) to misbehaviour in organizations (Rosignio, Hodson, & Lopez, 2009), (micro)politics and influencing activities in organizations (D. Kipnis, S. M. Schmidt, & I. Wilkinson, 1980; Neuberger, 2006; Schriesheim & Hinkin, 1990), toxic workplaces (Frost, 2003; Steven & David, 2007), and bullying at work (Bartlett & Bartlett, 2011; Branch, Ramsay, & Barker, 2013; S. Einarsen, 1999; Staale Einarsen, Hoel, & Notelaers, 2009; Salin, 2003; Zapf, 1999).

While many investigators have developed lists of potentially unethical and harmful activities at the workplace, the present study seeks to understand the processes of malignant manipulation, using a qualitative, phenomenological approach. More specifically, we explore the strategies and tactics used by the manipulators vis-à-vis their targets, as well as the dynamics of manipulation.

The first part of the paper reviews the literature with respect to manipulative strategies and tactics, and develops an analytical framework to identify, describe and analyse manipulative

behaviour in the workplace. Drawing on qualitative data, the subsequent empirical part analyses the reports of targets of, and witnesses to, malignant manipulation. The final two sections discuss these findings and draw conclusions from them.

2. LITERATURE REVIEW AND ANALYTICAL FRAMEWORK

2.1. Interpersonal Manipulation

Interpersonal manipulation is an *“attempt to get someone to do or omit doing something [e.g., act, feel, or think] that he might not otherwise do or omit to do”* (Rudinow, 1978, p. 339). Everyone is capable of interpersonal manipulation that is not necessarily harmful to others, for example when ‘hunting’ for a job or a partner, by means of impression or image management (Erving Goffman, 1959). It is well documented that manipulation is ubiquitous, a fixed constituent of organizational power and politics (e.g., Blickle, 2003a; Buchanan & Badham, 2006; Clegg, Courpasson, & Phillips, 2006; Jackall, 1988; Neuberger, 2006). However, Seabright and Moberg (1998, p. 167) characterize manipulation as ethically controversial since it *“operates by robbing the victim of autonomy”*. Thus, manipulation – together with bullying, harassment, and discrimination – shares the normative assessment of being potentially a form of ‘unethical behaviour’ with negative consequences both for the target and for the organization.

This article deals with a specific type of interpersonal manipulation in working life: *“attempts to influence the attitudes, emotions and/or behaviour of others for the manipulator’s personal advantage, against the other’s self-interest, and potentially harmful to the other”* (Wilson, Near, & Miller, 1996, p. 285). ‘Personal advantage’ refers to the potentially positive outcomes for the manipulator, such as excitement, fortune, glory, power, status, and self-protection. ‘Against the other’s self-interest’ means that the manipulator either does not care about potentially negative consequences for the target or even has the intention of harming the target, by bringing about negative emotions, negative health consequences, negative performance implications and/or dismissal. Moreover, the manipulator’s influence might be such that the target expresses negative behaviour towards others.

Although our research focusses on the (observable) behaviour of the manipulators, we cannot ignore the potential relevance of personality as a driver of human behaviour. Manipulation of targets in the furtherance of self-interest is frequently mentioned in the analysis of personality configurations associated with Machiavellianism, narcissism, and psychopathy (Jakobwitz & Egan, 2006; Paulhus & Williams, 2002; Vernon, Villani, Vickers, & Harris, 2008). In line with Paul Babiak and Robert D. Hare (2006), we assume that targets of manipulative behaviour might be exposed to such personalities, and thus it is relevant to distinguish between the different configurations of the ‘dark triad’ of personality.

Machiavellians possess a lack of empathy (Barnett & Thompson 1985), social interest, and prosocial behaviour (McHoskey, 1999). They express four assumptions: that it is wise to tell people what they want to hear (flattery), that people are dishonest (deceit), that people are immoral (immorality), and that people are vicious and untrustworthy (cynicism) (Hunter, Gerbing, & Boster, 1982). Whereas narcissists show a pervasive pattern of grandiosity, lack of

empathy, and hypersensitivity to the evaluation of others, psychopaths have a lack of conscience, empathy, guilt, or loyalty to others (Paul Babiak & Robert D. Hare, 2006; Hare, 1991). In this article, however, we leave aside the ‘personality configuration’ of the manipulator. Instead, we focus on the strategies and tactics they can use.

2.2. Manipulation Strategies and Tactics

For present purposes, ‘strategy’ involves a long-term orientation and overall plan for using resources to reach an ultimate goal in the face of an uncertain environment, while ‘tactics’ concern the concrete manoeuvres and attempts – the short-term-oriented operational actions and activities – for achieving these goals. A particular strategy may involve an assortment of tactics.

Various areas of management research have expanded our knowledge of the manipulation. To start with, impression management (E. Goffman, 1959; Stapleton & Hargie, 2011) - also known as strategic self-presentation in social interactions (Schuetz, 1998) - can be defined as a “conscious or unconscious attempt to control the images that are projected in social interactions” (Schlenker, 1980, p. 6), involving the manipulation of another person’s perception. Further contributions to the analysis of manipulative behaviour in organizations can be found in the literature on (micro)political behaviour (Drory & Vigoda-Gadot, 2010; Neuberger, 2006) and power tactics (D. Kipnis, S. Schmidt, & I. Wilkinson, 1980; Kipnis & Vanderveer, 1971; Malhotra & Gino, 2011).

2.2.1. Manipulation strategies

Based on the initial work of authors such as E.E. Jones and T.S. Pittman (1982), Schneider (1981), Tedeschi (1981) and J. T. Tedeschi and V. Melburg (1984), complementary taxonomies concerning self-presentation styles have been developed. The following section integrates Schütz’s (1998) distinction between assertive, offensive, protective, and defensive styles – which we re-label as strategies – with Friedlander and Schwartz’s (1985) analysis of ingratiation, self-promotion, supplication, intimidation, and facework strategies.

The assertive strategy refers to active but not aggressive ways of establishing a desired impression: the manipulator tries to evoke interpersonal attraction, trust and/or a notion of competence, or makes the other person feel important, liked or needed. Ingratiation, self-promotion, supplication, and exemplification are assertive tactics. The aim of ingratiation is to evoke attributions of attractiveness. The aim of self-promotion is to convince the other of one’s expertise and leadership (qualities). By using the supplication tactic one seeks to create an impression of neediness, to arouse feelings of nurturance, obligation, and protection. The aim of the exemplification tactic is to appear morally worthy.

The offensive strategy concerns an active and aggressive way of establishing a desired impression: trying to look good by attacking others or convincing the target that one is powerful in a dangerous way and should be feared. The *protective strategy* is an avoidance strategy: for example, avoiding blame, disapproval, questions or insight into one’s ideas and goals. With a

defensive strategy (or facework tactic) one aims to place oneself or the (negative) event in a different light by fighting negative typifications.

2.2.2. Manipulation tactics

To get what they want, manipulators can use several tactics, some of which can be attributed to one or several of the abovementioned strategies. *Blaming others for things that go wrong, lying, non-verbal tactics, upward appeals, and coalitions* can serve several goals. Babiak and Hare (2006, p. 52) assume that “*pointing the finger at others serves the dual purposes of protecting the manipulator’s own image (defensive) while spreading disparaging information about rivals and detractors*” (*offensive*). They also argue that individuals who use this tactic might want to be perceived as helping or protecting the target from harm (i.e. exemplification, where the tactic is moral enhancement).

By telling *lies* - ‘information management’ - (Fandt & Ferris, 1990), manipulators may want to foster a positive impression (i.e., *assertive*), intimidate or blame individuals (*offensive*) and/or want to protect or repair their image (*defensive*). Braginsky (1970) distinguishes between lies of commission (*giving false information and distortion of true information*) and lies of omission (*withholding information*). Feigning concern and integrity are examples of lies of commission (Blake & Mouton, 1985; Falbo, 1977), as is dishonesty in trying to make others feel good.

Non-verbal tactics are a constitutive element of manipulation. Manipulators might use nodding affirmatively, smiling, making eye-contact with (Schlenker, 1980; Schneider, 1981) or hugging others (see introduction) to portray a likeable image (*assertive*). In contrast, they may roll their eyes or stare to show disapproval of what the target does or says (*offensive*). According to Schütz (1998), ‘showing strength’ (*power display*), for example through modifications of one’s physical appearance such as dress or body language (Schneider, 1981), is the positive sibling of intimidation. It is an assertive self-promotion tactic.

D. Kipnis et al. (1980) mention *upward appeals* and *coalitions*. ‘Upward appeals’ refer to appealing to higher levels or obtaining the informal support of superiors; ‘coalitions’ refer to the mobilization of colleagues or subordinates. We assume that both tactics can serve various goals: one might refer to superiors and/or colleagues to defend oneself, to intimidate or to present an attractive or competent image based on group membership.

Several authors elaborate on *aggressive* or *offensive tactics*, which are well-known from research on psychological violence at work (i.e. bullying, harassment, and discrimination). These include yelling, threatening, insistence, offending, playing on a supposed weakness, social exclusion, (threats of) sanctions, false accusations of bad performance, ridiculing, guilt induction, volatility, hostility, taking away privileges, diminishing position and job quality, and enhancing pressure due to increased and/or changing demands (Buss, Gomes, Higgins, & Lauterbach, 1987; S. Einarsen, 1999; Friedlander & Schwartz, 1985; E.E. Jones & T.S. Pittman, 1982; David Kipnis et al., 1980; Rudinow, 1978; Schütz, 1998; Zapf, 1999). Schütz (1998) adds five further tactics: 1) downward comparison (i.e. achieving a more positive evaluation by making others with whom one is compared look less positive), 2) ironic statements or critical evaluation of a third party, 3) criticizing the questioner, 4) attacking the source of criticism, and 5) determining the topic of discussion.

The aim of *protective tactics* is 'passive avoidance'; for example, avoiding blame, disapproval, questions or insight into one's ideas and goals. Schütz (1998) distinguishes several tactics that are subservient to a protective strategy: avoiding public attention, minimal self-disclosure - saying as little as possible, or cautious self-description - avoiding the risks of positive self-presentation, also known as 'acting humble' (Friedlander & Schwartz, 1985; D. Kipnis et al., 1980), minimizing social interaction, remaining silent, and passive but friendly interaction. Falbo's (1977) evasion tactic (doing what one wants by avoiding the person who would disapprove) can also be seen as protective.

With *defensive tactics* (or facework) one wants to place oneself or the (negative) event in a different light by fighting negative typifications. Defenders reframe (i.e. accept responsibility for a negative outcome but either suggest that it is not so bad as it seems or argue it should not be seen in a negative way), apologize (i.e. accept responsibility for a negative outcome or behaviour, along with conceding that certain actions were unacceptable and should be punished), attribute responsibility (i.e. acknowledge that a certain negative event occurred but insist that one has not caused it; also known as disclaimers, excuses, self-handicapping, dissociation, and denial of responsibility), deny (by claiming that "*it did not happen*") and/or justify by accepting that they caused a negative event but claim that it was inevitable and they should not be blamed (Braginsky, 1970; Ellis, West, Ryan, & DeShon, 2002; Friedlander & Schwartz, 1985; E.E. Jones & T.S. Pittman, 1982; J. Tedeschi & V. Melburg, 1984; Tedeschi, 1981). *Assertive tactics* refer to active but not aggressive ways of establishing a favourable impression: trying to look good (*ingratiation*), competent (*self-promotion*), morally worthy (*exemplification*) or dependent (*supplication*). Ingratiation is displayed in order to appear likeable by directing the target's attention towards (real or pretended) kind characteristics, motives, or intentions, and away from unfavourable ones, or simply by making others feel good (Domelsmith & Dietch, 1978; Friedlander & Schwartz, 1985; Jones, 1964; O'Connor & Simms, 1990; Stevens & Kristof, 1995; Westphal & Stern, 2007; Wu, Yim, Kwan, & Zhang, 2012). Self-promotion tactics serve to convey an impression of competence to others (Falbo, 1977; Rudinow, 1978; Schütz, 1998; Stevens & Kristof, 1995). The aim of exemplification can be to elicit perceptions of integrity or morality, or to arouse guilt (Delery & Kacmar, 1998; E.E. Jones & T.S. Pittman, 1982). 'Supplication' refers to advertising one's dependence in order to solicit help (Friedlander & Schwartz, 1985; E.E. Jones & T.S. Pittman, 1982). Table (1) provides a general overview of the different strategies and related tactics.

Table 1: Manipulation Strategies and Tactics

Offensive: e.g., yelling, threats, insistence, playing on a supposed weakness, sanctions, ridiculing, guilt induction, and hostility.	Defensive: one wants to place oneself or the (negative) event in a different light by fighting negative typifications (apologizing, denying, attribution of responsibility, reframing, justifying).
Protective: 'passive avoidance': e.g., avoiding blame, disapproval, questions or insight into one's ideas and goals (e.g., avoiding public attention, saying as little as possible, cautious self-description).	Assertive: active but not aggressive ways of establishing a favourable impression: trying to look good (i.e., ingratiation), competent (i.e., self-promotion), morally worthy (i.e., exemplification) or dependent (i.e., supplication).

3. METHODOLOGY

It is almost impossible to find any deep and comprehensive insights in existing research on the strategies and tactics that manipulators use in manipulative settings. Wilson et al. (1996) state that there is a great need to study Machiavellianism, which uses manipulation as a tool, in real-life situations. Most empirical manipulation studies have been undertaken in laboratory settings or else they employ a 'distant' survey research method, exceptions being Blickle (2003b) and D. Kipnis et al. (1980)). As a result of the use of artificial settings, knowledge about manipulators' 'real (work) life' play is missing. Moreover, as it is very difficult to find manipulators willing to reveal and share their intentions and related tricks in empirical research, we decided to obtain information from targets and witnesses.

3.1. The Qualitative Methodological Approach

In order to explore the phenomenon, namely manipulative behaviour at work, we used a qualitative methodological setting. The goals of our research were to identify, to understand, and to analyze manipulative behaviour at work. Our interest in the phenomenon was initially triggered by other people's accounts of their experiences. We decided to embark on a systematically structured research project, which follows a combination of elements of grounded theory. In the words of Strauss and Corbin (1998, p. 12), grounded theory is a "*theory that was derived from data, systematically gathered and analyzed throughout the research process*". In this sense, we followed an iterative process of data collection, data analysis, generating concepts and (re)development of analytical categories.

We seek to improve our understanding of malignant manipulators by basing our investigation on phenomenological psychology, the purpose of which is to have the participants describe in as faithful and detailed a manner as they can their experience of a situation that the investigator is seeking to understand (Giorgi & Giorgi, 2003). The research goal was to disentangle the subjective experiences of targets and witnesses of malignant manipulation in order to gain a deeper insight into the strategies and tactics used by manipulators.

3.2. Sampling Strategy and Recruitment of Participants

The sampling process followed the principles of theoretical sampling, Glaser and Strauss (1967, p. 45) describe it as "*a process of data collection for generating theory whereby the analyst jointly collects, codes and analyses his data and decides what data to collect next and where to find them, in order to develop his theory as it emerges*". We sought to identify individuals who would provide the information necessary for improving the conceptual and analytical framework as well as for identifying, describing and analysing the strategies and tactics used by manipulators.

The population from which samples were drawn for this study was defined as employees with recent exposure to manipulative behaviour, whether as targets or as witnesses. In this sense, we followed an iterative process of data collection, data analysis, concept generation and (re)development of analytical categories, in line with Mayering (2002).

We used two strategies for finding research participants: 1) placing a call on a Dutch website devoted to information on work stress, and 2) word-of-mouth communication. In the call we addressed potential participants as follows:

Did the following ever happen to you? A colleague or supervisor influenced your feelings, behaviour and/or thoughts and this influence (finally) turned out bad for you and/or others? In short: did you ever perceive yourself as a target or witness of a manipulator; a misleading colleague and/or superior?

Thus, to find victims and witnesses, we very briefly described the phenomenon of malignant manipulation. This also means that, remaining loyal to our phenomenological approach, when an individual perceives that he/she is a victim or witness, we take this as truth. Five participants responded to the website call, and five participants responded to our word-of-mouth communication. Our pool of ten respondents includes one pair who shared a single manipulator. The participants' ages ranged from 28 to 62; three were male, and seven were female. All had higher education qualifications (BA or MA). One held a senior management position; the others held positions without leadership responsibilities in education, health care, ICT, and consulting. Their 'manipulation tenure' varied from six weeks to three years. Eight participants experienced manipulation only by superiors and/or others in management positions. Two experienced manipulation by superiors, other managers *and* subordinates and/or colleagues. Six participants experienced 'multiple manipulators'.

3.3. Data Collection

We conducted open-ended interviews with seven respondents, and three sent us their stories by email. Of these three, one opted for total discretion by sending thirty-three emails from an anonymous email account, never disclosing her full name. The duration of the face-to-face interviews was from 1.5 to 3.5 hours.

Our interviews aimed to let the participants describe their experiences in detail and in chronological order. Each began with an explanation about how we intended to use the information that we obtained, including a guarantee of full confidentiality. After the introduction, the interview began with a general question: Could you tell us your story? We then asked explicitly about the negative consequences of the manipulator's behaviour, and the role of other organizational members.

We informed the respondents that we would supply them with a verbatim interview transcript, so that they could make corrections and supplement the text when they recalled additional relevant information. Six out of the seven interviewees supplied supplementary material, which included diary notes, dossiers, emails, and job performance reports. After receiving the transcript of their interview, four interviewees expressed concern about confidentiality. To allay their fears, we promptly sent them and the others completed segments of the Findings section of our report. After they read this, all agreed to our further use of their experiences. Moreover, before submission we sent the manuscript to all respondents and asked them to report any lingering concerns about confidentiality.

3.4. Data Analysis

Because of concerns about confidentiality and anonymity, the individual cases will not be presented in isolation; rather, a cross-case analysis will be reported in such a way that individual participants are not identifiable. For analyzing the data (i.e., interviews, dossiers, diary notes, emails), we abided by three analytical procedures suggested by Giorgi and Giorgi (2003). *First*, the interviews were transcribed *verbatim*. *Second*, all transcriptions and other written information were read together carefully. When we detected a shift in meaning, we made a written record. *Third*, the meanings expressed by the participants were made psychologically explicit by asking what kind of manipulation tactics (see theory section) the participants referred to. Moreover, a residual ‘open category’ was established for quotations not falling into one of the units of meaning catalogued above. Quotations in this category were analysed in order to construct further empirically-grounded types.

4. FINDINGS

This section is in two parts. In the General Findings section, we report on general tendencies and patterns. Then, we present qualitative in-depth information on perceptions of the strategies and tactics employed by manipulators, as reported by the targets and witnesses. In processing and analysing the data, it emerged that strategies and tactics could change over the ‘life-cycle’ of the relationship with the manipulator. Thus, we organized the presentation of strategies and tactics according to the following stages of the interpersonal relationship between the manipulator and the target: Acquaintance Stage – Irritation Stage – Reflection Stage – Termination Stage.

4.1. General Findings

Two participants were never themselves exposed to offensive tactics. A third participant had only once been a target of offensive tactics, which occurred when he told the manipulator of his intention to resign his post. However, these three participants were the objects of assertive, protective, and defensive tactics. The remaining participants had been direct victims of assertive, offensive, protective, and defensive tactics. All participants also witnessed the victimization of others.

Nine of the ten participants had experienced manipulation only from individuals in leadership positions. Three participants experienced ‘multiple manipulators’: different people in leadership positions, subordinates, and/or colleagues. All participants claimed that their manipulators used a variety of tactics, emphasizing that they consciously and intentionally behaved the way they did (i.e. they wanted to establish and maintain power over others), and stated that they themselves were “*not the only one*”. The manipulators also created other victims (up to 50 persons within one company) and got assistance from subordinates, colleagues, and/or management. In four cases, top management seemed to participate in ‘institutional bullying’: offensive tactics were adopted to get rid of employees over a certain age (i.e., age

discrimination), or who criticized top management, or who no longer fitted into organisational culture or who were or had been unwell.

Furthermore, seventeen of the twenty-four manipulators were operating in organisations with a human resource manager on the staff. All nine participants who suffered from these manipulators complained that the HR manager was aware of their situation but either did nothing or even acted as the manipulator's accomplice. Moreover, three participants who needed to contact the company medical doctor because of their sick leave reported that they had been fearful that the doctor might leak their information to the manipulator.

In all cases of manipulators below a senior management position, senior management protected the manipulator by not taking action. In none of the cases was the manipulator dismissed because of his/her behaviour, while nine participants had already left or were planning to leave the organisation: four had already been dismissed, two were awaiting their dismissal (and were already involved in legal procedures), while four had 'escaped'. In only one case was the manipulator dismissed, but this was officially for reasons unrelated to the behaviour (i.e. to reorganisation).

Six of the ten participants reported illnesses lasting for several weeks or months. Six participants sought and accepted psychological counselling; two were planning to do so. The six who had received guidance were diagnosed with depression, burn-out, anxiety disorder (including panic attacks), and posttraumatic stress disorder (PTSD). The participants who until the study had not sought counselling and/or had short 'manipulator tenure' (i.e. six weeks) showed severe symptoms and problems related to the manipulations, including problems in concentration and sleeping, low self-esteem, distrust, and negative emotions (including fantasies about physically hurting or killing the manipulator), and aggression (including the ritual murder of manipulator figures). Each of the three participants who had never or only once experienced offensive tactics towards themselves suffered, in addition to their distress, relationship problems with partners including loss of libido and increased alcohol consumption.

Eight of the ten participants reported that several of their colleagues were involved in employment law procedures. All participants reported 'withdrawal behaviours' and suboptimal performance. With respect to their organizations, six participants referred to turnover rates of up to two hundred per cent a year and difficulties in attracting adequately-skilled staff.

Finally, four participants mentioned their manipulator's involvement in (semi-) criminal activities, including dubious money transfers to subsidiary companies, forgery, fraud, creative accounting, refusing to pay mandatory pension contributions, searching employee's (e-)mail accounts, using someone's name without permission for business transactions, corruption, unfair competition, illegal price-fixing and violating the law on workplace councils and/or intellectual property rights.

The following sections provide a more detailed account of the strategies and tactics deployed during the different stages of the relationship life-cycle. The descriptions of the different strategies have already identified a categorization of the respective tactic in parenthesis, i.e. *opinion conformity*.

4.2. Stage 1: The Acquaintance Stage

Six of the participants met their manipulators during the application procedure, while four of them met over the course of their organizational stay. These four refer to a good working climate, recalling that they felt at home in the employing organization before the manipulator(s) entered the stage.

Six participants claimed that their manipulators initially 'looked good', describing them as charming, empathic, friendly, jovial, maternal or paternal, sympathetic, "*a most charming womanizer*", and/or "*behaving as a pal*". Four of the participants recalled how during the application procedure the manipulator(s) evoked positive self-perceptions (e.g., *self-confidence*, *self-esteem*). The senior manager remembers being positively surprised about being able during the initial face-to-face contact to secure an increase in the original pay and benefits offer of about a hundred per cent. Two targets of the same manipulator referred to something roughly falling into the commonplace classification 'too good to be true'. They had had other career plans, but the manipulator 'sold' them the job as "*the chance of a lifetime*". Each felt flattered that a person in such a position seemed to believe in their capacities. A social therapist recalls her positive job interview:

The advertisement did not mention that it was a job with leadership responsibilities. However, during the job interview the two managers, both psychiatrists, offered me a supervisor's position in the field of in-house care (bribery). I also had the strong impression that the two wanted to fraternize with me. They told me they wanted somebody who could do (and was already doing) more than their current employees ... and during the interview I had the idea that the common line was a shared understanding, based on competence, of the importance of appropriate therapeutic interventions (opinion conformity).

However, this participant, and also the one who was able to double his employment conditions, later recalled a noticeable occurrence: during the application procedure the manipulator(s) seemed to want to block any contact between them and the backstage, i.e. future colleagues, subordinates and supervisors. That imposition of a boundary, of a distance, clearly evidenced elementary protective behaviour.

Three participants sensed something odd.

In my job interview, the witch kept on nitpicking. She repeatedly asked me questions about how I would resolve certain situations. I sketched my actions in comparable, past situations, but remarked that an appropriate way of acting depends very much on specific situations. The witch responded, slightly irritated: "What [do you mean by] 'situation-related'?" (Authors' note: The participant imitated the manipulator's voice: a harsh, high-pitched and exaggerated or even theatrical voice. Such imitations of manipulators' voices occurred several times during our interviews).

Because of her reaction I got the feeling that I had done or said something stupid (i.e. offensive), but I didn't get a negative impression of her. I thought she acted in this way because she wanted the 'best' and to get the best out of employees.

Two participants vividly recalled the 'grande entrée' of their shared, manipulative managing director.

A 'meet and greet' was organized for ... (name manipulator). I was surprised about her. She had the face and attitude of a 'top of the bill' leader. An emotionless, "Botox-like" frozen face and a haughty air. An appearance just not normal for the culture of this organization (i.e., power display). She told us about her tough past jobs (i.e., positive expertise self-description). I was surprised and asked myself why a person with such great experience would sign "to this club" and I had the strong feeling that something was wrong. But what ... (name of manipulator) told us – her ideas about leadership and how she was planning to flesh out her function - sounded good (i.e., positive expertise self-description).

However, her colleague had a slightly different impression and detected unpleasant feelings. During a conversation with the new director, she learned that they had both previously worked for the same employer. As soon as the director became aware of this fact, she made negative comments about colleagues and even blamed one employee for sexual harassment (*offensive*).

4.3. Stage 2: The Irritation Stage

For all but one of the respondents, their story started out in a 'truly' positive way, or at least in a way that was not obviously negative. However, for two of them who were dismissed while still on probation, confusion began on the first day of employment or earlier. Two weeks before the social therapist's employment began, the managers who had initially offered her a supervisory position in full-time in-house care presented her with other, less attractive, conditions: 30 hours in out-patient care and 10 hours for project development. On the first day of the job, she learned from a colleague that she had to work full-time in out-patient care. Thus, the initial proposal seemed nothing but deceitful. She immediately discussed the marked discrepancy between her promised and actual terms of employment with the managers. Both feigned surprise and told her that there must have been a misunderstanding (*defensive 'denial'*), blaming the colleague who told her (*"blaming others for things that go wrong"*). They seemed sincere and promised her the supervisor position (*bribery*). However, her contract of employment failed to mention these promises.

The participant who described the manipulator as a 'demanding nitpicker' was amazed several times on her first day at work. She was surprised when she found out that the person formerly introduced to her as her supervisor had been dismissed. Her new supervisor, the nitpicker, pointedly said that she should be happy about this development *"but was not willing to go into details"*. Then she started to explain in great detail why the former supervisor was no good for anything (*offensive*). After her own dismissal, the participant called the dismissed supervisor to find out more about the situation. It turned out he had filed legal charges and stated that the manipulator was the source of his problems. However, this was not the only strange encounter on the first day. Instead of simply showing her the stationery cupboard, as the MA-level educated participant would normally expect, the supervisor handed her the things from it she needed; she blocked the cupboard from view, making it impossible to look inside, and insisted that our participant use a pencil instead of a pen (*offensive restricting physical freedom and insistence*).

Within a few days, the target of this manipulation had ‘collected’ further confusing experiences. The manipulator always loomed large and determined the atmosphere. For example, she openly and loudly shared all kind of detailed private information with subordinates, particularly rich details about her forthcoming wedding (*assertive self-disclosure and discussing interests and/or non-work related topics*). When the manipulator described her hen party as ‘great’, the target remarked that she must be very relieved since sometimes friends organize unpleasant surprises. The manipulator was enraged by this comment, responding that she “*told them explicitly that I do not want such surprises and when I say so it does not happen*”. She thus made it perfectly clear that things were going the way she wanted them to go (*offensive power display*). The manipulator also tried to transform the target into an accessory (*offensive ‘clean hands’ tactic*). The supervisor required her to actively follow all in-house courses organized by an external trainer as a ‘normal’ course participant. However, the supervisor’s covert plan was for the subordinate to assimilate and then take over those courses, a plan that she was forbidden to disclose to the trainer.

Two unconnected respondents in retrospect had strange sensations within several days of employment. They recalled an absence of normal written information that was very striking, along with the unavailability of numerous routine essential rudimentary resources, including documentation of periodic cash flow, computers, rooms, standard software, and stationery. One of the two wrote:

I was very surprised to see that all the information my predecessor had left to the organization was a 25-page document which he had received from the management board when he started two and a half years previously. There were no documents, no minutes, no memos, no files, and no folders. The document included an outdated organizational chart, a blueprint of the rooms, and not much else. Why ... (name) initially appeared friendly, it soon turned out she was hoarding strategic information, and in some instances passing on information and filtering information strategically.

The participant remarked he had the feeling this was done on purpose: to avoid questions about or insight into goals and ideas (protective ‘*withholding written information*’). After studying his transcript, he added “*in this organization people avoided taking minutes of meetings and agreements*”.

Although they did not know this at the time, within the first three months of their employment two targets of the same manipulative supervisor had similarly odd experiences, despite the fact that one had joined the department about two years after the other. The supervisor had made each of them feel good by flattering their work-related efforts, seeming to be helpful as well as concerned (*ingratiation tactics*). However, one reported that he shared his first original idea for a project with the manipulator, who insisted that he incorporate her feedback and add certain details. He followed her lead, only for the project to be firmly rejected. A letter from an external evaluator offered categorical advice that he: “*should not be influenced by ...*” (name manipulator). Moreover, the target said:

It was strange. I sent my original idea to ... (and here he named several colleagues). All responded positively. However, none of them ever asked me about the current work, the work done under

supervision of ... (name manipulator). It felt like a taboo and I got the idea that this work was inferior ... and I felt inferior.

The honesty of the manipulator's display of concern appears doubtful. Both targets got the opportunity to finish projects more quickly than required. One target raised this matter to their colleagues, who were all shocked because they believed it was *"almost impossible to finish the project so fast"*. She then talked to her supervisor about their worrying reactions:

She took pity on me like an angry mother, suggesting that I talk to my colleagues. Later on, it seemed that this empathy was purely strategic, because those colleagues had obstructed her before. And even later, it turned out that her displays of empathy were always strategic.

However, while the manipulator obviously tried to make them feel good, both targets remember her offensive behaviour towards close associates. One recalled that a colleague had had a prolonged and serious conflict with the supervisor, ending in forced early retirement. This target did not communicate with colleagues about the details, but the manipulator repeatedly shared with subordinates her grievances about their *"poorly performing"* colleague. At one point, the two targets we interviewed were themselves transformed into opponents. Target one, who had been working for the supervisor for more than a year, requested a specific written document. The supervisor refused to provide it, appealing to changed organizational policies (*offensive 'lie of commission'*). However, within the first three months of employment target two had requested the same statement and received it with no problem at all (*bribery*). For target one, it became (again) very clear that she *"had fallen from grace"* and that target two was the new *"crown prince"* (*driving a wedge between people*; (P. Babiak & R.D. Hare, 2006)).

Finally, we briefly review the initially confusing experiences of the four participants who first met their manipulators during the course of their organizational stay. One of the two targets who faced the 'grand entrée' of their manipulative director reported that the latter was full of praise for her work during the first six months. After this period, however, the manipulator limited praise to superficial topics like her lunch-box and clothes (*assertive 'other enhancements'*). The other target also recalled chatting about clothes with the manipulator, who complimented her on her dress. The target emphasised her strong impression that the manipulator expected similar compliments in return (i.e., *assertive 'exchange'*), but when these were not forthcoming she simply made a remark about the uniqueness of her own dress. The rebuffed manipulator then became visibly angry, telling the target that she should not cope with such self-indulgent remarks since *"my mother let me walk in rags"* (*assertive 'self-disclosure' and defensive 'attribution of responsibility'*).

This was not the only 'self-disclosure' incident. For example, the manipulator told stories about the way she controlled her private life, including how she forced her husband to use a certain color by deceiving him (*assertive 'assertion'*). Moreover, she disclosed she was aware of her emotionless face and added that she rehearsed facial expressions in front of a mirror (*non-verbal attractiveness enhancement*). Not surprisingly, the receiver of this message received the idea that the 'grand entrée' was nothing but a performance.

For one target, the first ‘real’ doubts emerged when the company owner announced his plan to raise the standard of all employee communications. He intended to hire members of the religious sect to which he belonged and use the sect’s communication courses (*protective ‘collective brainwash’*). For our last target, who was a 59-year-old teacher, suspicion began after she had been more than twenty years in post, and within several weeks of the entry of a new management team:

Administration was very friendly during the first conversations: they offered me to work in secondary education ... and 200 per cent of my current salary.

However, these promises (*bribery*) were missing in the meeting report (*protective ‘withholding written information’*). She also noticed that the new principal regularly supported her ideas during meetings, promising to talk about them in detail later (*assertive ‘opinion conformity’*). However, he never had time to discuss them. Within several months of the installation of the new management team, several of her older colleagues had left the school. Only later did it become known that their departure was not entirely voluntary.

4.4. Stage 3: The Sense-Making and Escalation Stage

The two ‘early dismissed’ participants got very early wake-up calls. The joint superior humiliated a colleague of the social therapist during a group meeting, and the therapist noticed that a colleague and the superior together shifted the most difficult clients onto her. Both were less well educated than she was, yet the colleague perceived herself as the leader of in-house care, which was the more responsible position initially promised to the therapist.

Team supervision with an external supervisor, an intervention unwanted by her superior, was an eye-opener, strongly reinforcing her perception of the team’s problems. The therapist was asked to physically arrange her colleagues in the way she perceived their position in the team. She complied and arranged her colleagues, but none was either close to any other or to herself. However, she placed the superior at a very great distance from herself. When the supervisor asked the participants for their opinions about that, several responded that it was sad but true. The social therapist thought her superior was definitely offended. A week later, the informal in-care leader and the superior offered to guide one of her clients to an appointment (*assertive ‘helping others’*). The next week she learned that the ‘supporters’ used their offer of help against her; they accused her of sponging (*offensive ‘blaming the target’*) and reported it to senior management.

Following this incident and other group problems the senior managers, who were both psychiatrists, arranged a team meeting at which the superior – supported by the informal in-care leader – accused the participant of lying. None of the other colleagues said a word. Finally, one of the psychiatrists inflamed an already-sensitive situation by mentioning his long-term experience with group therapy and, consequently, familiarity with manipulation attempts (*positive expertise self-descriptions*). He accused the social therapist of manipulation (*offensive*), but added “*we will not fire you*” (*bribery*). As a reaction, she burst into tears.

Owing to the manipulator's moodiness and unpredictable behaviour, the 'nitpicker's' target felt increasingly insecure and developed self-doubt, wondering if she herself was responsible for the manipulator's behaviour? Seeking support and in order to reduce confusion, she began to share her experiences with a friend. In an email, she describes her 'Aha!' experience, the moment she realized that she was not the problem:

This morning I talked to the secretaries. They told me I had to stand up for myself, because otherwise I would drown. And that the behaviour I experienced was very normal (one moment nice, then ignoring, then bitchy).

The secretaries also warned her to be especially careful when the manipulator was in a very good mood, because *"then she is up to something"*. The target had ideas about improving an evaluation form and the supervisor supported her ideas (*assertive 'opinion conformity'*). So the target worked on the task and prepared, as the manipulator had suggested, a departmental presentation. During the event, a colleague asked her repeatedly *"On whose instructions are you doing this?"* In our interview with her she remarked that *"to each of his questions I could have responded with 'the bitch'"*, implying that he was inciting her to say so. A day prior to her presentation, the manipulator warned her about this specific colleague, calling him 'difficult' and a 'bugger' (*offensive*). After the presentation, this colleague indeed admitted that this was his intention, and remarked that many colleagues had problems with the supervisor and her moody behaviour.

After the presentation, the supervisor was full of praise for her, saying that *"this turned out very well"* and winking at her (*assertive 'other enhancement'*). The participant pointed to this behaviour as *"over-exaggerated"*, and added that she felt uncomfortable about it. A few hours later, the supervisor had changed her mind. Now the presentation was not good at all, requesting her to work on it herself (*offensive*). For the target, this was her breaking point. Over the course of the next ten days the supervisor repeatedly observed that she had fallen short of expectations.

For our other participants, the intervals between (initial) confusion, awakening, and recognizing that they had become a target or witness of excesses took longer—from many months to several years. One participant, a senior manager, noticed more and more striking inconsistencies before further insights proved he had landed on a toxic playground. It started with experiencing a lack of rationality or reason. A senior manager became involved in every single decision, down to choosing the colour of toilet paper; he postponed or cancelled the management board without reasons, or simply abandoned ongoing meetings; a certain manager *"appeared at department meetings without having been invited, changed the agenda to his liking, and massively interfered with discussions (offensive 'insistence')"*. The participant added:

... it became clear to me that any decision in the organization would not be based on the quality of the proposal, on the marketability of the product, but rather on the personal approval of the organization owner (power display). So, in this heavily regulated environment...influenced by legal provisions with standard requirements...the discretion of the management board would be limited, I thought. ... I found out that there were massive variations in terms of conditions of employment which were not justified

by skills, performance or any other usual reason (lack of rationality). Rather, it was the personal relationship to ... (name) at the time of concluding the contract which was decisive (power display)

The following diverse experiences convinced him of the organization's toxicity, and especially that of the director and his accomplice: creative accounting, dubious money transfers to subsidiaries, searching e-mail accounts illegally, using someone's name for business transactions without permission, corruption, unfair competition, misuse of loyalty tests for employees 'rebellion probability' (*protective tactic*) and *blacklisting* (*offensive, but also 'useful' for protecting the organization from undesired employees*):

What I also felt very disturbing was that apparently the organization maintained very close links with its competitors in the market despite fierce competition. I learned that there were blacklists of employees who had fallen from grace with one of the companies, and it appears to be agreement between the companies not to hire blacklisted employees or promote them to senior positions.

When the manipulator was his "crown princess", she shared with another target some of his 'recipes' (*i.e., self-disclosure*). The company had two car parks with separate access points but the director had blocked access to one, forcing all employees to use the other one, of which he had a full view of from his office. She asked the director about this and he explained he wanted to oversee the coming and going of his employees (*i.e., offensive 'restricting physical freedom' and assertive 'power display'*). This manipulator also *used spies*. "To make them feel comfortable", he invited applicants together with their partners to a dinner party at which his girlfriend was also present. His girlfriend's task was to interrogate the partner, especially about intentions to have children. The director believed that people with children lacked adequate motivation for work. This tactic referred to encounters in which a manipulator used non-targets to elicit helpful information, which is clearly an astute and self-protective dramaturgical move, inasmuch as the manipulator does not act openly. Finally, the target remembered an offensive 'hands clean' tactic. Her manipulator upgraded his image by emphasizing his connections to industrial associations (*assertive 'claims of membership in a competent group'*). He disliked the chair of one such organization and spread the rumour that this man wanted to quit his job. The target told the director she felt this was dishonest and he responded "I don't care. I want this guy out".

Despite these early signals, she became fully aware of his dangerous character only when he tried to transform her into an accomplice (*offensive 'clean hands' tactic*). After several months, the manipulator told her to be aggressive in looking for reasons to dismiss her subordinate. This once-appreciated employee had fallen from grace because of her illness. Our participant became herself a target after a car accident. When she returned to work, she noticed that the director had ceased to share information with her, he ignored requests for meetings, he repeatedly accused her of underperformance and, finally, he accused her of expense account fraud (*offensive criminalizing the target*).

The pair who shared a single manipulator showed a different pattern of awakenings and excesses: one target refers to three breaking points, the other to a cumulative sequence of negative and/or alarming experiences. We begin with the breaking points. The first target

confronted the manipulator with rumours that a colleague had lodged an official complaint. The manipulator suggested telling him the story over a beer (*assertive 'discussing interests'*). A few days later, the manipulator announced in a meeting that the complaint had been declared unfounded by management (*defensive 'attribution of responsibility'*), saying the complainant suffered from borderline personality disorder (*offensive plus 'blaming others for things that go wrong'*). However, in the meantime, unknown to the manipulator, the complainant had provided him with corroborating written evidence, so he realized that the manipulator was lying. Shortly after this incident, he found it strange that the manipulator invited him to attend a conference. He could remember that a year earlier a colleague – the other participating target – had been unable to attend this conference because of the cost. He thus interpreted the offer for him to travel abroad as an attempt to 'buy his loyalty' (*bribery*). To prove that this was the case, he told the manipulator he wanted to book one of the most expensive hotels in town, to which she raised no objection.

The third breaking-point occurred when, once again, the informant caught the manipulator lying and involved in bribery. His work responsibilities had increased substantially and he thus sought a new contract at a higher salary. The manipulative supervisor agreed to the request, telling him that she had ordered the personnel advisor to arrange it. Over several months, the target repeatedly asked the supervisor when he could expect the new terms, and on several occasions the supervisor assured him that it was coming, blaming the personnel manager for the delay (*defensive 'attribution of responsibility' and 'blaming others for things that go wrong'*). Finally, he talked to the personnel manager, who said that his supervisor had never requested a new contract for him.

This narrative corroborates the long list of disturbing experiences mentioned by the other target. The manipulator frequently had changed ideas about project contents, as well as departmental and lower-level tasks and targets. Consequently, the subordinates had difficulties in determining exactly what was required by the tasks, and they complained about being unable to do their own jobs (*assertive 'changing operative goals'*). Furthermore, the manipulator used every opportunity to establish her image as a competent person. For example, she introduced an expertise centre and an award with publicity (*entitlements*), greatly exaggerating their importance (*competence enhancements*), and was always keen to invite experts and VIPs (*appeals to upward contacts and coalitions*).

The two targets also reported unusual behaviours. One recalled that the manipulator was repetitive "*like a broken record*" in her enthusiasm, telling the participant that someone told her that she was "*the perfect combination of beauty and brains*" (*self-disclosure and attractiveness enhancement*). The other witnessed how the manipulator handed a present to her supervisor, while afterwards saying, "*This is how you have to treat him*" (*self-disclosure and bribery*). Moreover, the manipulator restricted the participants' physical freedom by expecting them to join her in the canteen, and to remain with her at the same table during social events with other departments or at external events. In retrospect, the targets assumed that by 'restricting physical freedom' the supervisor wanted to show to outsiders that the group was intact and well-functioning (*attractiveness enhancement*) when in fact it was not (*defensive 'denial'*). Both

assumed that the manipulator was suspicious of outsiders becoming aware of her outrages simply from talking to her subordinates (*protective 'minimizing social interaction'*).

Finally, both targets reported a wide repertoire of disturbing behaviours, among which were: 'flattering some to make others feel bad', making fun of a subordinate who collapsed at work, forcing a subordinate to work at the office of a direct colleague who had died just two days previously, labelling people incompetent and spreading vicious rumours and lies - including accusations about mental illness, alcoholism, promiscuity, and sexual harassment.

We now turn to the other manipulator with two 'testifying' targets. As mentioned in the last section, the manipulator's behaviour changed suddenly after six months. She became whimsical, ill-humored, frequently missed meetings and, as in other cases, drove a wedge between people by treating some well while humiliating others (including both targets). She sabotaged employees and the organization in general (*offensive*) by destroying several committees, talking with an external organization about acquisition, abolishing and outsourcing routine organisational work without the authority to do so, and telling clients about the poor performance of some employees. Several colleagues of the targeted informants heard about the latter from clients who found the new "*bad*" director "*strange*."

The two targets reacted differently to this situation. One showed burn-out symptoms and was on sick leave for several weeks, while the other did not seem to suffer. When the former returned to work, matters went from bad to worse. On sick leave she had applied successfully to another company. The manipulator's first reaction was very positive; she flattered the participant about her strength to make an application under such circumstances. In the next sentence, with a bright-coloured 'contorted' face she asked "*Was it an easy application?*" The participant remarked that "*it was like you saw the devil raised inside her*". We call this behaviour *flip flop*: an extreme and sudden change in interaction, from that of a 'normal' emotional affect and corresponding facial expression to an 'evil' one in a split second. Two other targets (with different manipulators) also experienced such behaviour, and it is striking that all three described it in comic language. They began to mimic the deeply negative 'role' of the manipulator, imitating an 'unnatural' voice and, less surprisingly, a tone of taking offence (*offensive tactic*).

In the months and years following his initial confusion, the employee of the director who is (openly) a member of a religious sect faced a growing number of alarming signals. The director splashed money around, including inviting all employees to the Caribbean (*bribery*) and buying a private swimming pool on the company account. He sabotaged the (mandatory) foundation of a works council, refused to pay mandatory pension contributions, and took measures leading to an overwhelming number of customer complaints. The following (*offensive 'power display'*) situation was a revelation to the target. The director ignored important employment legislation and dismissed all four members of his management team immediately after they had informed him of the company's dire financial problems. Playing to an audience of all employees present, he ordered a taxi for each one - 'deporting' them in a highly visible taxi parade. All those so degraded and humiliated filed charges against the company and won their cases. Our participant remains in post, calling the organization a "*golden cage*" with extremely good salaries (*bribery*) and thus difficult to leave.

The teacher's confusion about seeing several older employees leaving several months later then turned into an awakening:

While I was on leave the director sent me two emails, which were too friendly ... just to let me experience how friendly he is (perception of 'insincere' concern and attractiveness enhancement). However, these emails are totally conflicting with the fact that he claimed in a report that I was illicitly absent for a funeral (offensive). He never asked me about that, and I had permission for leave from the vice-principal.

This seemed to be the starting point of a campaign against her. For several months, the management team tried over and over again to demonstrate her alleged low performance and 'incompetence'. After a while, she went on sick leave. The authors are still in contact with her, and are able to reveal that she has remained on sick leave for more than year and is involved in a lawsuit.

4.5. Stage 4: The Termination Stage

So, what happened to our participants and how do they perceive the role of HR and senior management? In none of the cases were the manipulators dismissed because of their behaviour, while nine of the ten participants left the organization: four were dismissed, one was awaiting her dismissal, and four had 'escaped'. As for the nitpicker's target, she lost her job but discovered something which was, for her at least, very disturbing. Several hours after her dismissal, the manipulator revealed herself by tweeting "*The winner takes all*".

In only one case was the manipulator dismissed, but officially this was for reasons unrelated to the behaviour (but related to reorganisation). Eight participants had to deal with their HR managers. They all complained that HR had been aware of the situation but had either done nothing or had acted as the manipulator's accomplice. Moreover, all participants stated they felt left alone and ignored by senior management. Five of the participants reported that they had been ill for several weeks or months. Five participants sought and accepted psychological counselling; one was planning to do so. The five who received guidance were diagnosed with depression, burn-out, anxiety disorder or post-traumatic stress disorder (PTSD).

The participants who until the date of publication had not sought counselling and/or had short 'manipulator tenure' (i.e. six weeks) showed severe symptoms and problems related to the manipulations, including problems in concentration and sleeping, negative self-perceptions, distrust, panic attacks, negative emotions, and aggressive ideation (including the ritual murder of manipulator figures). Three participants who had never or only once experienced offensive tactics towards themselves suffered a variety of maladies, including relationship problems with their partners and increased alcohol consumption. All participants reported 'withdrawal behaviours' and diminished or failed performance.

5. DISCUSSION

Our qualitative study supplements the existing literature in that it yields in-depth, real-life descriptions of often abstractly-defined manipulation strategies and tactics. In addition, in line with the grounded theory approach, two issues emerged from our research, which extend the existing literature and can inform future empirical research on the topic.

5.1. Strategies and Tactics

The accounts by our participants show that manipulators use mixed (or combined) strategies and tactics: They did not use only offensive tactics; they *also* displayed an array of non-offensive tactics towards their target. While defensive and protective tactics are being used, ingratiation and self-promotion tactics predominate. It is striking that none of the research participants brought to the surface any tactics evidencing efforts to come across as morally worthy (*exemplification*) or dependent (*supplication*).

In addition, our research unveiled a number of previously unknown and/or unexplored tactics, such as collective brainwashing, 'flip flop', restricting physical freedom, 'hands clean', offensive power display, withholding written information, blacklisting, using spies, and criminalizing the target. This revised list of tactics can inform further research.

Research into unethical behaviour can profit by explicitly including manipulation knowledge. To date, research on bullying, discrimination, and harassment for the most part focuses on offensive behaviours. However, the findings of the present study show that assertive, protective, and defensive behaviours can also be harmful. In addition, our research shows that those who had begun as the heirs apparent could end up as victims of psychological violence. Thus, more approaches covering non-offensive manipulations and the 'entire' social environment in addition to the 'whole story' could be useful. The same conclusion applies to research on other dark sides of organizations, such as abusive, toxic, and destructive leadership (S. Einarsen, Aasland, & Skogstad, 2007; Schyns & Hansbrough, 2010) and organizational crime (Braithwaite, 1989; Schrager & Short, 1978).

5.2. Dynamics

The case analyses informed us about the development of the strategies and tactics used by manipulators over the lifecycle of an individual relationship, i.e. the whole story from beginning to end, as perceived by either target or witness. Regrettably, we are not able to analyse case-by-case accounts of manipulation on account of confidentiality and anonymity agreements.

However, from our exploratory research it seems to emerge that the manipulators' behaviour evolves from non-offensive to offensive, using offensive tactics as a last resort to reach their goals. Initially, these manipulators implicitly seem to behave in line with Falbe and Yukl's (1992) findings: non-offensive tactics are more effective than offensive tactics for gaining control or power over others. As such, the manipulators in this category might be referred to as over-ambitious micro-politicians. However, others display offensive behaviour that is direct (i.e. towards the target) or indirect (i.e. with the eventual target as a witness) from the outset. Since

self-unmasking of someone's aggressive or dangerous side from the start lays a dark shadow over subsequent attempts to appear competent or likeable, it is questionable whether such behaviour can be considered as strategic or political. Although we formulate our hypothesis with great caution, we are inclined to suppose that manipulators in this category represent one of the 'dark triad' personalities.

5.3. Limitations

There are of course a number of limitations needing to be discussed. To start with, one might argue that the small number of cases is a serious shortcoming. However, in line with the grounded theory approach we argue that our research followed a theoretical sampling strategy, i.e. we ceased to make additional observations when we felt that the information provided by the existing cases had sufficiently covered the phenomenon under investigation.

In our view, the major limitation is that – on account of undertakings of confidentiality and anonymity – the case-related stories as such did not remain intact and were chopped into fragments for the purpose of cross-case analysis. The serious challenge for the future is thus to find participants who can share their anonymized 'whole story' publicly, which would also permit contextual description and analysis. This is a rather difficult endeavour since many victims and witnesses are fearful and/or involved in legal procedures, including those with gagging clauses. Moreover, even when anonymized, many holistically presented cases can be traced down with persistence to identifiable victims and organizations.

Finally, we neither engaged in a discussion of what makes a potential or effective manipulator or target, nor did we elaborate on the normative aspects of whether and when manipulative behaviour is morally reprehensible. The concept of malignant manipulation was chosen to target the bi-dimensional facets of the bright, positive, enjoyable and sweet sides of manipulation, which is combined with the dark 'toxic' side, i.e. the negative effects for the target and/or the organization. Despite the negative connotation of 'toxic', the emphasis is on the phenomenon of impact in the sense its detriment to the interests of the target. Our focus was on the identification of observable behaviour, i.e. the specific tactics adopted by the manipulator. The discussion of what determines this behaviour, be it related to a particular type of personality, leadership strategy, micropolitics or organizational culture, should be addressed in further research. Both aspects have different potential implications, ranging from the psychological disorders of corporate psychopaths to legitimate opportunistic strategies in specific configurations of office politics.

6. CONCLUSION

After reviewing the literature on manipulation strategies and tactics, our analysis of the reports of manipulation targets and witnesses assisted us in advancing the existing categorizations, both by identifying additional manipulation tactics previously neglected in the literature and also by elaborating on the dynamics (or nature) of the processes of manipulation. Thus, at a very general

level, this study adds to the existing theoretical and empirical literature, and its findings can inform future research.

In addition, our study has several additional implications. *First*, research on the 'Dark Side' of working life (e.g. bullying, discrimination, and harassment, mobbing, corporate psychopaths) could empirically and theoretically analyse the perpetrators as manipulators.

Second, our study indicates that the consequences of malignant manipulation can be devastating for victims and witnesses, including long-term severe psychological and related physical problems, relational problems, distrust, dismissal, and a serious risk of becoming (innocently) involved in (semi-)criminal activities.

Third, our findings can be helpful for management, works councils, confidential advisors, and trade unions in detecting malignant manipulation in their organizations. Certainly a combination of the following 'symptoms' should be seriously alarming: complaints; rumours; assumptions about (or verified) high staff turnover; poor staff retention; difficulties in attracting employees; long-term sick leave; (semi-)criminal activities; HR bribery ('broken promises'); an unusual number of deviant labour contracts without rational explanation; conflicts within and between organizations, departments, and people; low production quality and quantity; lacking resources; failing projects;; repeatedly changing operational goals; extremely good and bad accounts of one and the same person; and unethical behaviour. Organizations should be aware that ignoring these signals can work against them when victims turn to costly lawsuits. For advice on how to deal with and, even better, prevent workers and organizations from vicious manipulators, we refer to the work of colleagues such as Babiak and Hare's (2006) 'Snakes in Suits' and Sutton's (2007) 'The No Asshole Rule'.

Finally, our study might be helpful but it might also be a warning to (future) victims of malignant manipulation. The findings indicate that victims should not expect support from insiders (e.g. senior management or HR managers) or outsiders. Moreover, victims should be prepared that people who are called upon for help very often protect and support the manipulator and turn against those who call on them.

Developing policies to address the issue of malignant manipulation in order to avoid detrimental effects on employee and organizational outcomes warrants attention to at least two other issues, which should be elaborated on by future research. First, the question naturally arises as to the determinants of manipulative behaviour, which then would require different treatment and/or policies concerning job design, selection, HR development, and performance management. Is such behaviour an issue of personality (disorder), a pathological phenomenon, related to performing a certain organizational role, or the consequence of a particular organizational environment? Concerning the latter two factors, an interesting question would be to identify organizational and job design elements linked to HR policies and practices likely to increase the probability of someone using manipulative tactics. It might well be that a particular business model is built upon influencing customer preferences and behaviour in order to increase revenues. The sales positions might require a specific configuration of personal characteristics and skills, which are sought after in the selection process but which could also increase the probability of that person using employing manipulative tactics in the workplace. In a similar vein, organizations might provide incentives for employees in a ways that attract

'potentially' malignant manipulators and cause them to self-select themselves into such organizations, e.g. through providing incentives for extremely risky and/or competitive behaviour in order to achieve the position's (and thus the organization's) goals.

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