SMEs in Motorsports: What is driving their journey to sustainability?

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Summary

Motorsports is seen as fossil-fuel guzzling, speed-hungry and competitive, which makes it an interesting context for sustainability research. Motorsports is shifting with Formula 1 pledging to be net zero by 2030 and with Formula-E growing. Past research reveals that developing sustainably in SMEs is thwarted by limited awareness of the impacts and benefits, lack of time/resources and lack of skills/expertise (Journeault, Perro and Vallières, 2021). This research started by implementing Green Impact intervention with Motorsports Valley® SMEs. This longitudinal case study research explored the degree to which SMEs engaged, and sustained environmental focus over time. Leadership and personal values have a role to play in environmental progress for SMEs, however, perhaps stronger are the market forces and survival instinct of SMEs. Hence, it was the combination of leadership; financial and competitive necessity and the networks and market drivers in the sector that were key to prolonged sustainability for these SMEs.

Keywords

Sustainability, Net Zero, Carbon Footprint, Zero Carbon, Responsible Business, Environmental Management, Motorsports.

Word Count 7000 words

1 Introduction

Motorsports seems an unlikely industry to promote environmental sustainability, with its image of fossil-fuel guzzling and ferocious speed of motor racing. However, as global pressure continues, the industry is pursuing net zero carbon. Formula-E, the motorsport championship for the electronic car, is the first and only sport to be declared net zero carbon since it's inception (ABB Formula E, 2020). In this paper, the authors investigate the role of SMEs in the UK Motorsports Valley® in this drive towards sustainability. A group of companies associated to the motorsports industry located in the UK Motorsport Valley® agreed to work with the authors in applying a pro-environmental program called Green Impact developed by the National Union of Students (NUS). We focused on small and medium enterprises (SMEs) as they are normally overlooked in the analysis of environmental practices and innovations. Our contribution to this field is to draw upon the discussion on drivers and barriers highlighting some of the structural, contextual and strategic factors for SMEs in the motorsport industry in sustaining environmental practices and innovations. This paper explores the degree to which the actions taken by the Green Impact intervention were sustainable and the perceived value (financial and symbolic) of such practices.

The objectives of the research were:

- 1. Examine the impact of the Green Impact intervention on continuing environmental practices for the SMEs in Motorsports Valley®
- 2. Identify the drivers for engaging with environmental practices for SMEs in Motorsports Valley®
- 3. Explore the interplay of different factors that have led to a "cultural shift" where Motorsports values of competitivity and speed are being harnessed towards sustainability and environmental development.

This research adds to the discussion on environmental management in SMEs on the level of continual development. We argue that sustainable practices in SMEs are driven not only by senior leadership and personal values, but they are now part of a complex system of exchanges and shared values through the supply chain, providers and associated businesses. There is exploration of how the cultural shift and the perceived financial value of environmental and socially responsible practices aids continued development.

2 Motorsport Industry

Motorsports can be defined broadly as competitive racing by equivalent machines on a frequent basis, on designated tracks and circuits (Angus et al., 2007, pp. 1-2). At the cultural and symbolic level, motorsports seem to glorify certain values such as competitiveness, and the ideals of a faster, louder and more aggressive "top gear" culture. At the same time, motorsports sector is a key contributor to the British economy with an annual turnover of £9 billion (Motorsport Industry Association, 2014). The motorsports sector includes not only the actual car-racing teams, but also a myriad of associated industries and businesses, many of them SMEs providing specific products and services of this complex economic activity. These SMEs participate both in the culture of motorsports, as well as, the changes in the industry in terms of strategy and business focus. This paper offers a longitudinal assessment on the ways in which the motorsports sector has been adopting and developing the values and challenges of environmental sustainability.

The four SMEs of this study are located in the UK Motorsport Valley® which includes a cluster of 4,300 manufacturing and service SMEs within a radius of approximately 50 miles, in southern England. Motorsport Valley® comprises around 41,000 employees with an

annual turnover estimated as totalling 4.6 billion, dominates the world of racing-car production (Hannah, 2014). It is recognised as a key innovative space for development of technology within the motorsports sector.

The SMEs analysed are part of Motorsports Valley® providing different infrastructure and services to motorsports. The purpose of this research is to understand the drivers and motivations for these SMEs to adopt and sustain environmental and socially responsible practices. We investigate how four SMEs associated to the motorsports industry interact, learn and share some of the sector values and the recent trends in the overall consideration of issues such as social responsibility, environmental practices and sustainability in the automobile industry and the motorsports sector.

2.1 Motorsports and environmental sustainability

When assessing the environmental aspects of the this sector, it is evident that motorsports events dealing with combustion engines and fossil fuels have a considerable environmental impact: in terms of pollution for liquid spills' air pollution, consumption of natural resources (water, wood, paper) and non-renewable resources (fuels, metals, etc.); creation of greenhouse gases; soil and water pollution; soil erosion during construction and event implementation, amongst other effects (Chernushenko et al., 2005). As a whole, the motorsports industry presents divergent evidence of their environmental and socially responsible credentials. On the other hand, the motorsports sector has "helped to create an environment which is at the forefront of innovation in engine technologies and ultra-lowemission vehicles." (UK Trade & Investment -UKTI, 2015, pp. 18). These innovations are shared with the automobile industry worldwide, where automotive manufacturers are looking for alternatives in fuel-efficiency and, in general, carbon-footprint reduction (Zapata and Nieuwenhuis, 2010). Due to its prominent position as innovators, this sector has developed technologies of energy efficient motorsport (EEMS) aiming at a greener, environmentally friendly, sensitive racing through the use of alternative fuels and engine techniques. The UN Sports for Climate Change initiative (UNFCC, 2020) and UK government interventions towards net zero like the Road to Zero (HM Government, 2018) fuel action towards net zero. This major shift is also permeating associated industries and organisations linked to and serving the motorsports industry, including the SMEs in this study.

3 SMEs and environmental and ethical & social responsibility

There has been a shift in the consideration of environmental and socially responsible practices throughout the years. The major shift has been the recognition that SMEs are not "little big companies" (Tilley, 2000) neither they can be equalled to larger organisations (Massey, 2003). In his seminal study, Jenkins (2006) recognised that apart from customer demand or regulations, one of the main drivers is the role of senior managers championing the introduction of changes. In the case of SMEs adopting environmental practices, Cambra-Fierro et al. (2008) have demonstrated that the implementation of environmental friendly supply, production and distribution systems stem from the set of beliefs and values of the company's management and from the pressure exerted by the market (Cambra-Fierro et al., 2008). Journeault, Perro and Vallières (2021) purport that despite the government initiatives towards sustainability, SMEs still struggle to integrate social and environmental concerns into their business practices. They identified the barriers to sustainable development in SMEs as: a limited awareness of the impacts and benefits associated with sustainability, a lack of time and resources, and a lack of skills and expertise.

3.1 Leadership

A key aspect in the literature is the role of personal values and the need for a fit between personal and professional values are main drivers for engagement with environmental management (Williams and Schaefer, 2013). Leadership, thus, emerges as a key aspect in the understanding of why and how companies engage with environmental practices (Jenkins, 2006). In his pioneering work, Jenkins argued that "practices can often take a great leap forward when championed by a senior manager. In SMEs this would commonly be the managing director or owner managers." (p. 241). Leadership, however, it is not only the prerogative of the senior manager, as changes require the engagement of champions, as "individuals within the organisation who pioneer new products or concepts and are given the freedom to try out these ideas." (Gray and Smeltzer, 1989: p. 66).

3.2 Competitiveness and Survival

The adoption of environmentally friendly practices depend on the SMEs priorities, which according to Spencer and Rutherfoord (2000) are four: profit maximisation priority, subsistence priority, enlightened self-interest and social priority. Mainly, the literature seems to agree that the major priority of SMEs is survival, hence, day-to-day activities give little room to the consideration of environmental issues (Studer et al., 2008), and also due to the lack of resources. There is growing evidence that SMEs tend to adopt practices in a more informal manner, normally led by values of the owners and senior managers, and responding to some internal and external demands. Williams and Schaefer's (2013) work concludes that economic arguments and external pressures were an important factors for SMEs to engage with climate change prevention. Also, Santos revealed a clear perception among SMEs that sustainability brings direct business value and represents an important factor in competitivity (Santos, 2011). These practices are not necessarily emulating large firms, such as the implementation of Environmental Management Systems (i.e. ISO 14001, etc) or related to their marketing strategy, but rather SMEs adopt diverse and heterogenous practices, according to their needs and their circumstances (Brammer, et al, 2011).

3.3 Drivers and Market Forces

In addition, customer and social demand for green credentials has also impacted the way in which the owners/seniors managers in SMEs are now considering environmental practices as part of their marketing strategy. While ten years ago, SMEs were "reluctant to show off" their environmental credentials (Jenkins, 2006), nowadays, SMEs are more likely to implement specific programs and awards that allow them to "brand" themselves as "green" companies (Mintel Group Ltd., 2009; Revell, 2010). According to Bremmer et al, (2011) SMEs can have a better advantage over their larger counterparts, because of their flexibility to respond more swiftly towards the business environment and competitors' actions (Aragón-Correa et al., 2008). "SMEs also tend to devote greater attention to personal relationships, and focus on key stakeholders, (and personal relationships), which allow them access to external funding and business opportunities." (Bremmer, et al, 2011: p.425). Inyang (2013) states SMEs acting as providers of goods and services to large companies will conduct responsible initiatives to tackle environmental and social issues. Formula One has pledged to be net zero carbon by 2030 (Formula 1, 2019), this has created a wave effect across motorsports and the UK Motorsport Valley®.

3.4 Networks and Stakeholders

Many of the above mentioned studies seem to focus on the SMEs solely, without considering that they belong to a number of networks, institutions and industries. Inyang (2013) states that supply chain pressure from large organizations helps the SMEs to adopt ethically

responsible practices to sustain their business relationships. Santos (2011) discovered that SMEs favour cooperative relationships that foster business activities, predominantly from the internal and economic perspectives, showing far less focus on setting up partnerships and cooperation agreements for community in general. In this regard, the concept of social capital defined by Spence et al (2003) may be useful to enhance the consideration of SMEs in their engagement with social and environmental practices. Hence, it would be important to consider institutional links (e.g. trade group membership); networks links (e.g. informal or formal local business groups); and mutual trust relationships (e.g. with neighbouring firms), as key areas where SMEs can learn from networking and cultural influence from their peers. Batagglia et. al (2010) shows that coordination and social capital may be key elements in the adoption and formalization of socially responsible practices, in response to new demands of global markets.

In the same study, the authors refer to the process of adopting socially responsible practices, starting with a more informal approach (Chiesi, 2005; Perrini et al., 2007; Russo and Tencati, 2009), or 'implicit CSR' (Matten and Moon, 2004; 2008). The question is how these "silent" practices (Jenkins, 2004) become established and normalised actions embedded in the operations and the strategy of SMEs. One possibility is the promotion of "clusters" of industry, related by geographical proximity, or by their association in the context of "intermediates" such as business associations, chamber of commerce, local authorities (Battaglia, et al. 2010) reinforcing certain values, as could be seen in Motorsports Valley®.

The literature review can be summarised as follows:

Figure 1: How SMEs in the motorsport industry engage with and sustain

environmentally friendly practices



Company Sector

In this study, we consider the impact of networks and stakeholders on the SMEs organisational learning and their effect on governance and long term vision. Further, it has been extensively argued that the priority of SMEs is mainly to survive (Spencer and Rutheford, 2002), which may preclude any additional effort to engage with environmental issues or socially responsible practices. As SMEs can "very adaptive, swiftly adjusting their trading capacities according to changing market opportunities" (Goffee and Scase, 1995), abilities that allow them to listen to the context, customers, suppliers and contractors, whose see environmental focus as the norm.

4 Case Study Methodology

This paper is the result of four years of collaboration with four SMEs in Motorsport Valley®. The project involved a process of collaboration between three SMEs associated to the motorsports industry: Showtrax International, Corbeau Seats and Lotus Sport, which had a shared ownership at the time of the initial intervention. The project concerned the implementation of the Green Impact, a pro-environmentally friendly program promoting environmental practices, in a collaboration between the companies and the university and the NUS. Throughout this six-month period a range of data was collected. This included quantitative information of environmental practices documented in a workbook, observation data, other documentation, interviews and field notes. The companies were revisited three years later in order to assess the sustainability of the environmental and responsible practices initiated by the Green Impact. At that time, one of the owners had left the consortium of companies and is now working with a new organisation called Grand Design Systems. We added this to the sample as the manager inherited and brought the practices to the new company, thus, expanding the impact of the initial intervention.

The authors were interested in finding out which of these practices were still implemented, and how the discussion about sustainability has changed after three years of the initial intervention. Through the collaboration between the university and the SMEs we were able to initiate a process of organisational change but after time this may have declined or disappeared. Further, we inquired about the context that may promote or challenge the adoption of environmental practices and the dissemination of sustainable values by the SMEs. Finally, we explore the implications of changes in the motorsports sector at the strategic level and in the system of interrelations with the automobile industry. This investigation is based on a combination of primary research: four case studies; observations in a six-month action-research intervention; semi-structured interviews with senior managers, employees and environmental champions in the motorsports sector; as well as secondary data in the analysis of the motorsports sector in the last four years.

Case study research handles a great variety of evidence – observation, documents, archival records, artefacts, interviews and observation in order to understand complex social phenomena (Yin, 2018). The research was longitudinal, hence, there was sufficient time for the development of environmental practices and their impact to be analysed that minimises over-generalisation of the emerging findings and results (Miller and Friesen, 1983; Pettigrew, 1990) Case studies were selected to represent a cross-section of the SMEs in Motorsport Valley®, some are supplying direct materials and others peripheral items used in motorsports. The four cases selected provide pits and garage equipment for the drivers and engineers to work and show their teams. The companies are part of consortium working in Bedfordshire and Sussex, and there were initially two senior managers in charge, table 1 summarises the four SMEs in this study. A range of sources of data were harnessed to explore how SMEs in the motorsport sector implement environmental practices, shown in the lower portion of table 1.

Table 1: SMEs investigated in the Motorsport Sector

Table 1: SNIES IIIV	estigated in the M	otorsport Sector	[
Company	Showtrax International Limited	Corbeau Seats Limited	Lotus Sports Limited	Grand Design Systems Limted
Business purpose	Supply and build of motorsport pit lane and garage equipment	Manufacturer of motorsports and road car seats	Preparing the cars and integration of car mechanics and the supervision of it to ensure the drivers safety and vehicle performance	Seamless walling systems to create garages at the races and robust floor tiles
Location	Sharnbrook, Bedfordshire	St Leonards- on-sea, East Sussex	Hastings, Sussex	Brackley, Buckinghamshire
Assets	£382,000	£516,000		
Data Collection				
Documentation	Showtrax News press releases Company website FAME financial data	Corbeau News Company website FAME financial data	Company Website	Company website
Interviews	Semi-structured interviews with management before and after implementation of Green Impact 3 years later	Semi- structured interview with the CEO	Semi- structured interview with the CEO	Semi-structured interviews with management
Direct	4 site visits of	2 site visits	2 site visits	1 site visit
observation	the team.			
Participant	Eco-auditing the			
observation	business over six months			

5 Results

The collaboration between the university team and the SMEs was led by a group of academics and students in association with the NUS. The purpose of the project was to test the relevance of the Green Impact, a pro-environmentally behavioural program coordinated by the NUS. The Green Impact online workbook for organisations and teams to follow certain actions organised in six areas of intervention:

- 1. Energy saving
- 2. Water

- 3. Travelling
- 4. Communication
- 5. Waste and recycling
- 6. Bio-diversity

The program suggests simple, yet very effective, actions to reduce carbon footprint. Low hanging fruit practices such as lighting plans, double-sided printing, recycling, promoting car-sharing and biking to work, etc., were slowly integrated into the routine of the companies. This research found that although SMEs may normally reject big formal programs (Worthington et al., 2006), there is still need for some structure that can guide actions and practices. The findings of this intervention coincide with Cordano et.al (2010) in their assessment of how SMEs are "scaling down formal EMPs into management programs" (p. 445). In the case of the companies studied, the interviews demonstrate that the structure provided by the Green Impact improved their original practices mostly guided by common sense, toward targeted actions aimed at reducing carbon footprint and improving socially responsible practices (Cordano et al., 2010).

From the companies in this study, only one was awarded the Bronze Category, whereas the other two did not present enough results for the accreditation. This divergence in the engagement with the program can be explained by the lack of "leadership" as expressed in the failure to identify or support an environmental champion who could push the implementation of the program. The awarded company, however, reported improvements in the previously mentioned areas, with specific impact in financial budgets, especially in the costs of recycling: from £100 per week prior to the program to £25 per week after the program. Further savings were reported in the use of paper for printing after the program. In terms of LED, they had already reduced 70% of the energy bills. In general, the interviews emphasised the impact of the program in creating awareness of change:

"The green impact has, as I say, made us a lot more aware of the issues. We've (computers) set them all to sleep after an hour automatically which we hadn't done before, they just stayed on. Lack of natural light - We've got the LEDs in. We've cleared the windows in the warehouse, I don't know if you remember, you might see today, we've got some windows out the back and they were all covered with palettes of flooring and no light actually got in. We've now cleared that so you've actually got natural light coming in in the summer." (Senior Manager)

The implementation of the program, however, was not an easy task. First of all, the environmental practices proposed by the program had to be embedded into an already busy agenda and it has to be trickled through three different areas of the companies involved: the garage, where mechanics and engineers work; the studio, where graphic designers operate; and the office, for the managers and administrators. As any other "change" the beginning was met resistance, but the commitment and passion of the environmental champions and the fact that people slowly found their place in the program facilitated the transition:

"you have to make decisions for your own company, for what's best for your company but not every company is the same. Yes I think, we, probably because we are a small team, we did all communicate quite well. ... There was a bit of opposition. People did not understand how much difference we could make by changing small things." (Environmental Champion)

The specific implementation of almost 100 actions of the program required a process of "scaling down" of some of the areas of the Green Impact and a systematic process of team

building, training, budgeting and delegation of responsibilities (Spence and Rutherfoord, 2000; Darnall and Edwards, 2006).

"Because everybody is busy, we are not all able to sit down. Whereas I can do my work, but I can leave my desk. And I can go and sit with one or two people and have a chat about how's this going, how's that going. Putting certain people in charge of certain things. Think they quite saw it as a right than a huge obstacle. (Environmental Champion).

Another important aspect is that it was not all about radical change, but small improvements in what people were doing at home or because of education. The changes were followed with slight changes in the disposition of bins, the placement of stickers and posters around the place.

"The changes that we implemented are changes that do not actually change our lives on a day-to-day basis. So they are very easy to sustain. For instance waste, paper and materials. We have a huge amount of waste in the graphics area so our first point of attack was this recycling of waste. ... as we have boxes with bin liners in our various areas where we can either put plastics in one, paper in others and food waste that can go into a special bin downstairs. That is incredibly easy. You don't have to get up... then every Tuesday we have a recycling man with a van who comes round." (General Manager)

All these outcomes were encouraging, yet, the question was until what extent the companies sustain those practices. Three years later, we approached the companies to find out; as expected, the SMEs in the sample experienced some changes. The most salient of them all was that one of the general managers left the company and is now working with another company in the same sector; in addition, there was a merger of the three companies and restructuring. However, in terms of the routines established by the Green Impact and their continuation, the authors found that most of the practices were kept, especially in the lighting routine, the waste management, recycling and even more, an enhanced awareness of the benefits of environmental actions, in terms of marketing, brand value, competitive advantage, amongst others.

6 Analysis

The guiding question for this research is how companies engaged, commit and sustain environmental and responsible practices throughout certain periods of time. Based on our interviews and the literature review, the answer lies on the consideration of how these companies address Leadership, Networks, Competition and Drivers.

6.1 Leadership

As a starting point, we draw upon existing research in the appreciation of leadership as a key driver for SMEs adopting environmental and socially responsible practices (Jenkins, 2006). Notwithstanding, our findings reveal a different approach to leadership which comes not only from the senior managers - albeit their support is the starting point of the intervention - but also from staff who perceived the program as an opportunity to express personal values. In the companies studied, it was found that the senior managers often open an umbrella of opportunities, for example, by taking the decision of changing the lighting system to LED or accepting the collaboration with the Green Impact and the university. Notwithstanding, we argue that senior management support is not enough to engage with environmental practices, due mainly because of the limitations of their roles. As found in this research, the role of

"champions" or individual efforts in environmental practices are as important as the top management support. This is an aspect stressed by the senior managers in the interviews:

"Top management, middle management, yes, they are important, but they are not necessarily going to lead that operation. I didn't, I went along with it and like everybody else grew into the ways I could change. I can sit here along with everyone else and say, yes, our lives haven't really changed a lot but we've done various things that are now habitual." (General Manager)

Based on the interviews and observations, it is possible to argue that, aside from, the senior management support, it is the environmental champion who can achieve a better level of rapport with the teams and employees, because the power distance is shorter than those in senior positions. In our case, the environmental champion attitude of collaboration was crucial in this endeavour:

"[the financial manager] was actually so busy business-wise that it became too difficult for him to take on board [the Green Impact program], or to be in charge. He was very much aware of what had to be done, but he didn't have the time to do it. So really, that's when I stepped in to try and to make the staff a bit more aware (...) Actually, most people did put ideas in. That was the good thing...once we started it was like snowball effect, the more we did the more we wanted to do." (Environmental Champion)

From our analysis, the key for the sustainability of these practices was the realisation of the financial benefits, e.g. cost savings. In our companies, the environmental champions emerged spontaneously, driven by personal values and exhibiting leadership qualities that without the program may have been overlooked. However, it is necessary to clarify that personal values need to go in hand with the perceived benefits, hence business and ethical values are both important in implementing environmentally friendly systems (Cambra-Fierro et al., 2008). These benefits can range from the staff satisfaction to wider opportunities of industry contacts and competitiveness.

An additional approach to leadership is evidenced in the SMEs who perceive themselves and the British motorsport sector as leading the development of automobile innovations worldwide. This is an element that has not been explored in other studies, and perhaps it is only pertinent to the SMEs in this particular sector, or related to a self-image of British culture as industrial pioneers and innovators.

"We still are way ahead of the world. Our ideas, of course, may end up in America, or India or China or wherever, because we not big manufacturers here anymore, but nevertheless, the knowledge that we have is just unbeatable. And that then goes to motorsport, if you look at motorsport, we are so far ahead of the rest of the world it's untrue and that has always been the case, which is why you will see the majority of the big teams in world motorsports based here in the UK and in particular in this area. You are right in the heart here of what we call 'Motorsport Valley'..... And the technology that comes out of it whether it's electric, whether it's bio-fuels, whether it's all sorts of engine technologies are all emanating from the UK. No two ways about it. It's a very, very exciting thing and I think people just don't realise this." (Senior Manager)

All these levels of leadership: at the personal and organisational level, but also as sector and industry, are relevant to understand the shift in the perception of environmental practices throughout the three years of this study. Initially, the motivation was based on personal

values and intergenerational awareness. Three years later, these environmental practices are kept as a daily routine in the companies and in some cases enhanced. A new perception of environmental practices as competitive advantage stems from the changes in the sector, the overall business culture and a major awareness of the challenges and opportunities of climate change.

6.2 Competition and Survival

supply chain in the automobile industry.

Following Spence and Rutherfoord (2000) it is obvious that the main priority of SMEs is to survive. Environmental practices, in this light, albeit commendable and guided by personal values, need to yield a financial tangible benefit to be sustainable. For the companies involved, these benefits were possible thanks to savings in the following areas: firstly, in terms of energy saving, they had already adopted LED systems which resulted in a reduction of 70% in their energy bill. A direct consequence of the program was considerable savings in waste management: costs of hiring a skip and disposing of the large quantity of waste of the graphic department was cut by half after the implementation of the program. The attitude of the SMEs in this research show that they were very keen in adopting the Green Impact and obtain their award, as this is used as evidence of their green credentials for contract tendering, marketing materials and brand value. What is really interesting is the fact that environmental practices are not only "nice things to do" but they are perceived as triggers of technological innovations, hence, creating competitive advantage. From our interviews there is a stronger realisation that the future is green, and that not only survival but

also growth will depend on the capacity of the SMEs to respond to the demands of a green

"Talking to the bigger boys [in the automobile industry] that's clearly where we want to be. And for being there, we need to have a responsible supply chain. If you don't tick the right boxes when working with these corporations you don't get a chance!" (General Manager)

The longitudinal approach of this research allowed the comparison of the attitudes and context as expressed by the SMEs throughout the time. The most salient change is the shift - both in the literature and SMEs experience - between an "insular" consideration of environmental issues as a matter of personal choice or senior management commitment, toward a cultural change and industry perception of environmental practices and social responsibility as part of the new configuration of market forces.

6.3 Drivers, market forces and trends in the sector

In order to curb CO² emissions, the UK government aims to reduce GHG emissions by at least 80% by 2050 (as compared with the GHG proportion in 1990). These regulations have a direct impact on the overall automobile industry and, thus, the motorsports sector. Another pervasive force is the pledge made by Formula One to be net zero by 2030 (Formula 1, 2019). For the associated business, the increasing regulation and the transition toward environmentally friendly technologies is a fact to take into account, and this is expressed in the interviews across the years of this study. As a whole, the motorsports industry is also interested in improving the efficiency of the internal combustion engine. Formula E (for electronic car), which has always been net zero, is rising in popularity and may prove to be the future of motorsports racing and competition (Formula E Holdings, 2013). The pervasive idea in the sector, as expressed by our interviewees is illustrated in the expression "Win on Sunday, sell on Monday":

"The man in the street, he was watching the race on the telly he saw a Ford car win race on Sunday that must be a great car I must buy one, that was the theory. And it's

true. But it also motorsport industry put much greater stresses and strains on all components including seats including everything..." (General Manager)

As remarked before, apart from the links with other SMEs in the Motorsport Valley® and the automobile industry, it is important to stress that the whole business environment has evolved toward the adoption of environmental principles, many times in the development of new business orientated toward recycling and waste management.

"I think with the increase of awareness of recycling and the environment and all the rest of it. You know, councils, generally, have been quite responsible, they have made life for us as a commercial business, a lot easier. There very much is an infrastructure is there. And it is becoming easier, you know, this whole attitude that we first spoke about ... years ago with the connection between the environment and businesses, small businesses and all rest of it. I think it has changed an awful lot." (Senior Manager)

6.4 Networks, Stakeholders and Organizational Learning

SMEs progress toward environmental practices cannot be considered in isolation from the rest of the sector. The development of improvements and new technologies in the motorsports industry is closely followed by the automobile industry who adopt these innovations in the design and manufacturing processes and this is set to increase. In the field of environmental innovations, Formula One technology developed the mechanical kinetic energy recovery system (KERS) which has been adopted by three British companies hence representing a significant improvement in energy use and recycling. Rally Car has also seen some improvements in the use of alternative fuels, mainly ethanol, by teams like the Oaktec Honda Insight. This is a significant example, as Honda is investing in developing an alternative to the ever so popular hybrid system as the eco-friendly option for consumers worldwide. Apart from the processes of technological and innovation transfer between the two sectors, there are ethical principles and shared values that facilitate the adoption and expansion of responsible practices and technological improvements. As the CEO of the three original SMEs comments:

"We work very closely with MIA (Motorsport Industry Association), we have a lots of initiatives which is automotive to motorsport, motorsport to military, etc. So they are looking at the innovation that the motorsport can bring. Because we are very timeline driven, you have to deliver on time. We are supplying products to the Le Mans race... If you are a supplier for them, you have to deliver. That ethics comes from being there, that culture of motorsport business is great when you take into the other industries because you have an absolute commitment to deliver." (General Manager)

This constant exchange between these two sectors and amongst the SMEs themselves, coincide with the view of some researchers in the sense of arguing that "SMEs are not microcosms with its own rules and laws" (Spence et al., 2003, p. 19). Instead, SMEs learn from their peers (Jenkins, 2006) and also from other associated industries. The flow of information, cooperation and technological innovations can be understood using the notion of social capital, in the sense of links and informal networks, and learning from related sectors and industries, rather than closed networks or institutional arrangements. Spence, Schmidpeter and Hasbisch (2003) argue that social capital for SMEs helps to: 1. stabilise mutual expectations and enable collective action. 2. form a kind of insurance and 3. give access to relevant information. From our research, there are some evidence of cross-industry

learning, in the sense of cultural awareness of sustainability from the automobile industry and increasing emphasis on greening motorsports.

During the period of this research, we have noted that there is an increased sharing of values and ethical principles that are ultimately guiding actions and strategies at the level of the SMEs. Spizeck (2009), calls this type of development as "moral organisational learning", stressing how values about becoming more responsible are adopted by the organisation. The companies analysed show some evidence of certain type of organisational learning, in the sense of advancing the activities of the framework, and making them part of their normal behaviour. In this case, we could not really prove any advancement in a "moral organisational learning" but it has been interesting to see how the organisations involved are paying more attention to the potential of combining values with practical outcomes.

What is evident is that due to their size, it is possible to say that small business and SMEs have the human element at the core of their work, which is also likely to have implications for how they approach managing environmental initiatives and stakeholder management. According to Grayson (2006), the identification of stakeholder and the relation with them becomes much more personal in SMEs (Grayson, 2006). Journeault, Perron and Vallières (2021) found the role of stakeholders essential for over-coming barriers, as seen here with the moves made by Formula One. From our observations and interviews, it is possible to argue that an unexpected benefit of the implementation of programs like the Green Impact was the enhancing of a team spirit. This is related with the established values embedded in the culture of motorsports, which works with 'teams' rather than individuals (albeit the big race drivers seem to steal the limelight), and this is also applicable to the companies in this case study. We found also that the companies were competing amongst each other in the implementation of the Green Impact, and it seems to be a big motivation for them to participate. Another key aspect was the element of fun in the application of the program, for example, by having a fair trade day inviting the different departments to participate and share [free trade] tea and biscuits in an informal fashion.

7 Discussion

In this paper we have offered a summative framework integrating the drivers and conditions for SMEs to engage with environmental practices and social responsibility. This framework stems from the consideration of our case studies in the motorsport sector in England, but it can be useful for other types of SMEs. Big events such as Formula One, Le Mans, etc., as covered by the media seem to focus on the individual personalities and rivalries of the drivers. This "top gear" perception of the motorsports sector does not do justice to some elements that we perceived in our research. Companies, such as those in our study and the motorsports races, work in teams, and this spirit pervaded through the interviews and evidence we collected. Another key issue of our research is that environmentally friendly practices, albeit, initiated by senior managers are actually sustained by environmental champions. These persons emerge naturally, as if finding their place into the ideal of environmental practice or social responsibility. Finally, there is an element, previously overlooked in the literature, which is the national identity and pride as part of the understanding of the role and responsibility of vanguard sectors such as motorsports and automobile industry. This is an element that deserves more attention and may be the issue for a future article.

The second dimension in our analysis is the increasing awareness of adopting environmental practices as a competitive advantage, as evidenced in our interviews. The main change registered in the period of this research is the shift between a "personal" driver for adopting environmental practices and a more "strategic" approach. This is a double edge sword: on one hand, environmental issues may become "normalised" and "integrated" within the company approach, but also, it may keep this ongoing topic at the level of instrumentality (a tick boxing exercise), rather than a core purpose in the raison d'être of the companies. Numerous studies have analysed the perils of "greenwashing" when companies adopt certain environmental practices solely for marketing or PR purposes (Laufer, 2003). This is a difficult topic to evaluate, and more time would be required to see whether or not environmental practices remain at a superficial level or they can get to define the companies themselves. From our case studies there is some hopeful evidence of their understanding of environmental practices as a potential differentiation aspect for the companies when designing their products and manufacturing processes. What is clear is that routines of proenvironmentally friendly behaviour have been adopted in the everyday processes of staff and manufacturing. This was facilitated by the Green Impact but they were already investigating environmental technologies and savings as their early adoption of LED lighting for their premises. Further, the companies are well aware that environmental and social responsibility credentials are here to stay, as they are part of the requirements asked by big companies in order to consider collaborations and contracts. With this in mind, the SMEs in the motorsports sector are now innovating and designing products that not only follow those environmental requisites but report financial benefits in terms of savings on energy use, transportation and waste management.

Financial benefits obviously appeal to companies for engaging in environmental practices, but they may need to go beyond the short term of such benefits into the long term aspects of their own governance and future, in conjunction with the wider automobile sector. One of the major findings of this research has been the existence of a systems of values, exchanges and relationships between the automobile industry and the motorsport sector, hence, both sectors are experiencing the shift in the consideration of sustainability and environmental technology for their own long term strategies and learning. In this sense, the whole culture of competitiveness of the motorsports sector is actually harnessed to create technological innovations and driving changes in the automobile industry. Increasing use of electronic cars and Formula-E promoting a renewed perception of the electric car as something as glamorous and desirable as the Formula One cars.

8 Conclusion

The development of the motorsports sector is intrinsically related with the evolution of the automobile industry. The motorsports sector is actually the hub for research and development for the automobile industry, for example, major improvements in security, fuel efficiency and design have emerged from the motorsports industry. During the last few years, the discussion about sustainable practices and social responsibility has shifted from "why" SMEs and organisations would engage with sustainable practices and environmental behaviours, toward, "how" SMEs and organisations are transforming their strategies, practices and business focus toward sustainability. Our research contributes to this discussion by addressing issues such as leadership and the existence of environmental champions, and the normalization of environmental practices in the daily activities of the companies. In addition, we have argued that apart of the benefits for SMEs in terms of competitive advantage, differentiation, financial savings (waste management and energy consumption), the next step needs to

involve a long term strategic view and a steering of the companies following the values of sustainability and responsibility.

We also demonstrated that changes in the adoption of sustainable values and practices during those four years need to be understood in a systemic way of exchanges, feedback and collaborations. This is evidenced in three areas. Firstly, SMEs adopting environmental practices respond to an increasing demand for greener products and services from the wider motorsports sector, which at the same time, is being driven by the strategic investments of the automobile industry in the development of alternative ways of transportation. Secondly, in the last four years SMEs have been able to implement and improve environmental practices due to the emergence of organisations and services that facilitate green processes such as waste management and disposal; availability of competitive prices on LED technology for lighting replacement. In this regard, it is important to note that the collaboration between the university and the organisations act as the "starting" point of further environmental actions. In addition, a major awareness amongst managers and staff working in this sector has made possible the adoption, transference and continuation of the practices inside and between organisations.

Finally, we are aware of the limitations of this research in terms of the reach and generalisations of our results. However, we have also observed that changes have been adopted as a natural part of the SMEs activities during a significant period of time. This marks a shift from sporadic and individual experiences toward a sustained progress in terms of environmental practices and innovations for a sustainable future.

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References

ABB FIA Formula (2020). Net Zero Carbon | FIA Formula E. [online] ABB FIA Formula Available at : https://www.fiaformulae.com/en/discover/sustainability/net-zero >[Accessed: 22 Feb, 2022]

Allen, J. (2014). F1 sponsors and supporters drive the shift to sustainability. Financial Times. London. 13th March, 2014.

Angus, T., C. Aylett, N. Henry and M. Jenkins (2007). Motorsport going global: The challenges facing the world's motorsport industry. Hampshire, UK., Palgrave-MacMillan.

Barthes, R. (1972). Mythologies. London, Paladin.

Battaglia, M., Bianchi, L., Frey, M. and Iraldo, F. (2010) An Innovative Model to Promote CSR among SMEs Operating in Industrial Clusters: Evidence from an EU Project. Corporate Social Responsibility and Environmental Management. 17, 133–141

Bohm, S. (2006). Against automobility. Oxford, Blackwell.

Bremmer, S., Hoejmose, S. Marchant, K. (2010) Business Strategy and the Environment

Bus. Strat. Env. 21, 423–434 (2012)

Cambra-Fierro, J., S. Hart and Y. Polo-Redondo (2008). Environmental respect: Ethics or simply business? A study in the small and medium enterprise (sme) context. *Journal of Business Ethics*, 82(3) 645-656.

Chiesi AM. 2005. L'importanza della fi ducia e del capitale sociale per la CSR. In Guida critica alla responsabilità sociale e al governo di impresa, Sacconi L (eds.). Bancaria editrice: Milan, Italy.

Chernushenko, D., D. Stubbs and A. Van Der Kamp (2005). Sustainable sport management: Running an environmentally, socially and economically responsible organisation. Ontario, United Nations Environment Program.

Cordano, M., R. S. Marshall and M. Silverman (2010). How do small and medium enterprises go "green"? A study of environmental management programs in the u.S. Wine industry. *Journal of Business Ethics*, 92(3) 463-478.

Darnall, N. and D. Edwards (2006). Predicting the cost of environmental management system adoption: The role of capabilities, resources and ownership structure. *Strategic Management Journal*, 27(301-320.

Department for Business Innovation & Skills (2013). Policy paper - driving success a strategy for growth and sustainability in the uk automotive sector. London, H M Government.

Dingle, G. (2009). Sustaining the race: A review of literature pertaining to the environmental sustainability of motorsport. *International Journal of Sports Marketing & Sponsorship*, *I*(1) 80-96.

Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of Management Review*, 14(4) 532-550.

Eisenhardt, K. M. (1991). Better stories and better constructs: The case for rigor and comparative logic. *Academy of Management Review*, *16*(3) 620-627.

Formula 1 (2019) Formula 1 announces plan to be Net Zero Carbon by 2030 [online] Formula 1® Available at: < https://www.formula1.com/en/latest/article.formula-1-announces-plan-to-be-net-zero-carbon-by-2030.5IaX2AZHyy7jqxl6wra6CZ.html > [Accessed: 15 Feb 2022]

Formula E Holdings (2013). *Fia formula e championship value creation & sustainability report.* Retrieved 31 July 2015, from http://www.fiaformulae.com/media/28088/ey_fe_value_creation_and_sustainability_report.p df.

Formula E Holdings (2015). *Introduction - official fia formula e championship*. Retrieved 15 July, 2015, from http://www.fiaformulae.com/en/guide/overview.aspx.

Goffee, R. and R. Scase (1995). Corporate realities: The dynamics of large and small organisations. London, Routledge.

Gray, E. R. and L. R. Smeltzer (1989). Management: The competitive edge London, Collier MacMillan Publishers.

Grayson, D. (2006). Inspiring smaller firms with the responsible business mindset.in The accountable corporation: Corporate social responsibility. M. a. H. Epstein, K. London, Praeger: 279-298.

Hannah, E. (2014). "Formula 1 austin preview: Thrills, parties, and a \$550 million boon. 15 July, 2015, from http://www.bloomberg.com/news/2014-10-29/formula-1-austin-preview-thrills-parties-and-a-550-million-boon.html.

Higgins, T. (2015). Apple wants to start producing cars as soon as 2020. Bloomberg. http://www.bloomberg.com/news/articles/2015-02-19/apple-said-to-be-targeting-car-production-as-soon-as-2020.

HM Government (2018) The Road to Zero [online] HM Government. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/739460/road-to-zero.pdf [Accessed: 10 Feb, 2022]

Intergovernmental Panel on Climate Change (IPCC) (2014). Climate change 2014: Mitigation of climate change. Contribution of working group iii. Cambridge, UK, Cambridge University Press.

Inyang, B.J. 2013 Defining the Role Engagement of Small and Medium-Sized Enterprises (SMEs) in Corporate Social Responsibility (CSR), International Business Research; Vol. 6, No. 5; 2013, pp 123-132

Jenkins HM. 2004. A critique of conventional CSR theory: An SME perspective. Journal of General Management Summer 29(4)

Jenkins, H. (2006). Small business champions for corporate social responsibility *Journal of Business Ethics*, 67(3) 241-256.

Journeault, M. Perron, A. and Vallières, L. (2021) The collaborative roles of stakeholders in supporting the adoption of sustainability in SMEs, Journal of Environmental Management Volume 287, 1

Laufer, W. S. (2003). Social accountability and corporate greenwashing. *Journal of Business Ethics*, 43(3) 253-261.

Lowes, M. T., P. (2007). Communicating urban values through megasport events: The case of australia's "high performance".in Urban communication: Production, text, conte. T. A. L. Gibson, M.E. London, Rowman & Littlefield Publishers Inc.

Massey, C. (2003). Employee practices in new zealand smes. *Employee Relations*, 26(1) 94-105.

Matten D, Moon J. 2004. A conceptual framework for understanding CSR. In Corporate social responsibility across Europe, Habisch A, Jonker J, Wagner M, Schmidpeter R, (eds). Springer: Berlin; 335–356.

Matten D, Moon J. 2008. 'Implicit' and 'explicit' CSR: A conceptual framework for a comparative understanding of corporate social responsibility. Academy of Management Review, 33(2): 404–424.

Miller, D. and P. Friesen (1983). The longitudinal analysis of organizations. A methodological perspective. *Management Science*, 28(9) 1013-1034.

Mintel Group Ltd. (2009). Ethical and green retailing - uk. September 2009. Pettigrew, A. M. (1990). Longitudinal field research on change: Theory and practice. *Organization Science*, 1(3) 267-292.

Motorsport Industry Association (2014). Some selected highlights from the 2013 review of UK's Motorsport Valley® business cluster. Retrieved 15 July, 2015, from http://www.the-mia.com/assets/Highlights from Review of Motorsport Valley 2013.pdf.

Perrini F, Russo A, Tencati A. 2007. CSR strategies of SMEs and large fi rms. Evidence from Italy. Journal of Business Ethics February 74(3): 285–300.

Revell, A. S., D.; Chen, H. (2010). Small businesses and the environment: Turning over a new leaf? *Journal of Business Strategy and the Environment*, 19(5) 273-288.

Rosenfeld, S. A. (1996). Does cooperation enhance competitiveness? Assessing the impacts of interfirm collaboration. *Research Policy*, 25(2) 247-263. Russo A, Tencati A. 2009. Formal vs. informal CSR strategies: Evidence from Italian micro, small, medium-sized, and large Firms. Journal of Business Ethics March 85: 339–353.

Santos, M. 2011.CSR in SMEs: strategies, practices, motivations and obstacles, Social Responsibility Journal Vol. 7 No. 3, pp. 490-508

Seidel, M. S., R.; Tedford, D.; Cross, R.; Wait, L.; Hammerle, E (2009). Overcoming barriers to implementing environmentally benign manufacturing practices: Strategic tool for smes. *Journal of Environmental Quality Management*, 18(3) 37-55.

Spence, L. J. and R. Rutherfoord (2000). Social responsibility, profit maximisation and the small firm owner manager. *Journal of Small Business and Enterprise Development*, 82(2) 126-139.

Spence, L. J., R. Schmidpeter and A. Habisch (2003). Assessing social capital: Small and medium sized enterprises in germany and the u.K. *Journal of Business Ethics*, 47(1) 17-29.

Spence, L. R., R. (2003). Small business and empirical perspectives in business ethics: Editorial. *Journal of Business Ethics*, 47(1) 1-5.

Spitzeck, H. (2009). Organizational moral learning: What, if anything, do corporations learn from ngo critique? *Journal of Business Ethics*, 88(1) 157-173.

Stake, R. E. (1995). The art of case study research. Thousand Oaks, Sage Publications.

Tilley, D. J. (2000). Small firm environmental ethics: How deep do they go? . *Business Ethics: A European Review*, *9*(1) 31-41.

United Nations Framework Convention on Climate Change (2020) Sports for Climate Action [online] UNFCCC Available at: https://unfccc.int/climate-action/sectoral-engagement/sports-for-climate-action [Accessed: 20 Jan, 2022]

UK Trade & Investment (UKTI) (2015). Ahead of the curve: How uk motorsport technology and innovation can benefit your company. London, UK Trade & Investment (UKTI). URN UKTI/15/1

Urry, J. (2004). The 'system' of automobility. *Theory, Culture & Society*, 21(4/5) 25-39.

Williams, Sarah and Schaefer, Anja (2013). Small and medium sized enterprises and sustainability: managers' values and engagement with environmental and climate change issues. Business Strategy and the Environment, 22(3) pp. 173–186.

Worthington, I., M. Ram and T. Jones (2006). Exploring corporate social responsibility in the UK. Asian small business community. *Journal of Business Ethics*, 67(2) 201-217.

Yin, R. K. (2018). Case study research: Design and methods, Sixth Edition, Thousand Oaks, Sage Publications, Inc.

Zapata, C. and P. Nieuwenhuis (2010). Exploring innovation in the automotive industry: New technologies for cleaner cars. *Journal of Cleaner Production*, 18(1) 14-20.