

Organisational characteristics influencing the sustainability policies of hallmark events in the Netherlands

A comparative case study of the Dutch GP and Zevenheuvelenloop

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Abstract

Key words: *environmental sustainability, hallmark events, resource dependence theory, organisational characteristics*

This paper examines the influence of organisational characteristics on environmental sustainability strategies of hallmark events. Hallmark events are location-specific events that are closely tied to the identity of the host community and can have a significant impact on greenhouse gas emissions through their activities, and that of their visitors. These will need to be reduced to reach climate neutrality by 2050. The main research question of this paper is: *“How do the organisational characteristics influence the environmental sustainable strategy of the organisation of hallmark events and why?”*

Research has shown that event organisers are influenced by resource dependence and their organisational characteristics. Resources can be human resources such as knowledge and expertise, but can also be financial, technological, or materialistic resources and resource dependence can influence sustainability through different ways, either as an attempt to reduce the uncertainty of obtaining vital resources or by reducing the dependence on the providers of resources such as providers of sponsorships or other companies, who hold valuable resources needed. Organisational characteristics such as age, mission, vision, board size and expertise can also influence sustainability of an organisation, separately from their resource dependence. Lastly, legislative stakeholders can also influence sustainability of events by making new policies which require sustainability to be considered.

Two different cases were analysed during this research, the Zevenheuvelenloop and the Dutch GP. Environmental sustainability of events focused on eight points: carbon offsetting, water management, energy management, transport management, waste management & circular economy, green communication, green procurement, and ecological conservation. Through semi-structured interviews, literature review and document analysis the two cases were studied on the different environmental sustainability measures that were taken and what influenced them in taking the measures. Contrary to expectations, the two cases revealed that the Zevenheuvelenloop's organizational characteristics drive their sustainability rather than being influenced by their sponsors or need of resources. Whereas the case of the Dutch GP showed more of an influence by their resource dependence and less by their organisational characteristics. It demonstrated how resource dependence, in situations where sustainability might otherwise be overlooked, can have a positive effect on sustainability at events. Yet, resource dependence is less likely to be significant if there is already a strong internal drive to implement environmental sustainability measures. Lastly, legislative stakeholders can influence event organisers in the future by demanding a sustainability plan to be made to receive an event permit from the municipality, examples where this is already implemented are Amsterdam and Tilburg. Though this research policy makers can make better sustainability requirements when approaching companies and foundations to implement environmental measures and the research contributes to the scientific field on the sustainable event management of foundations and companies.

Preface

Before you lies the master thesis “Organisational characteristics influencing the sustainability policies of hallmark events in the Netherlands.” It has been written to fulfil the graduation requirements of the Environment and Society program at the Radboud University in Nijmegen. I was engaged in writing this thesis from April till August 2024 and from April up until June I was writing my thesis at the Province of Noord-Holland.

From the start of the academic year I wanted to have my research connected to the Formula One, as it is one of my favourite sports to follow. The search for an internship location followed soon after but this was found to be more difficult than expected. When I had eventually found the province of Noord-Holland to conduct my research at and still had Formula One connected to my research I was excited to get going. It did however mean that I had to rewrite most of the research I had already done previously as the subject had slightly changed in the process. From this I had learnt that the process of writing a thesis required me to be adaptive but also stick to what I found interesting to research as the process still had to be fun. Furthermore, I have improved my research skills significantly. At first I found myself to endlessly be reading articles without having the feeling of progressing much but as time went on I became adept at navigating the available databases and evaluating numerous amounts of sources. Lastly, I have found that although writing a thesis is primarily done on your own, collaboration is still very important. In working together with my in-company supervisors and thesis supervisor it made me realize that insights and support of others helped me better my thesis and often set me on the right path.

I would like to thank my supervisor Sander for the guidance and support during the process. Our monthly meetings always resulted in fruitful insights and gave me a direction to go again with new motivation. I would also like to thank my in-company supervisors Roos and Ronald, who were always willing to help me during the research process, which meant helping me by giving feedback or help come in contact with the right people. This led to the interview with the Dutch GP, something that is still surreal for me as fan of the sport. The colleagues at the province also gave me a warm welcome every time I visited the province and were always happy to help me, and for that I would like to thank them too. Lastly, I would like to thank my parents who I spent days with working from home and giving me advise and support.

To conclude, I would like to thank you, the reader: I hope you enjoy your reading.

Jurriën Adelerhof
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1. Introduction

1.1. Environmental Sustainability at Hallmark Events

The primary objectives of the 2016 Paris Agreement are to limit global temperature rise to 1.5 degrees Celsius and to keep it below 2 degrees Celsius (UNFCCC, 2016). All parties involved sought to reduce greenhouse gas emissions as quickly as possible to achieve this goal; how this goal is accomplished is up to the parties involved. As a signatory to the agreement, the Netherlands has established its own policies regarding how to accomplish this objective. According to their coalition agreement (Rijksoverheid, 2021), at least 55% of CO₂ emissions must be cut by 2030. To ensure this, policies are made with the aim of achieving a reduction of 60%. And by 2050 climate neutrality, or net zero greenhouse gas emissions must be reached.

Governments at all levels—national, provincial, and local—must collaborate with businesses and the civil sector to accomplish this goal. One of the sectors that can make an impact through their large reach and large greenhouse gas emissions is the event sector (Yuan, 2013). In the Netherlands, events come in all different forms and sizes such as multiple day music festivals attracting hundreds of thousands visitors from all over the world to sporting events such as the ABN AMRO World Tennis Tournament or the Zandvoort Grand Prix.

Hallmark events are one of the types of events and are defined as “major one-time or recurring events of limited duration, developed primarily to enhance the awareness, appeal and profitability of a tourism destination in the short and/or long term. Such events rely for their success on uniqueness, status, or timely significance to create interest and attract attention.” (Brent Ritchie, 1984, p. 2).

De Zevenheuvelenloop in Nijmegen is an annual two-day event that attracts around 50.000 to 60.000 people. Whilst the Zandvoort Grand Prix, an annual three-day event, draws around 300,000 people to it. These two events are prominent hallmark events in the Netherlands as they attract thousands of visitors and increase the appeal and profitability of the locations in which they operate. In addition to reducing their own emissions and the emissions of their attendees, these two events also receive funding from their sponsors in exchange for promoting their respective sponsors' businesses or communicating new policies. Although they share certain characteristics, such as adopting sustainable practices, their legal forms, motivations, and methods are different from one another.

The Dutch GP for one has many large (inter)national sponsors such as Heineken, Radio 538, and VolkersWessels and is overseen by Formula One Management (FOM), the company providing race contracts for Formula One races around the world such as the Zandvoort Grand Prix and has set a target of reaching net zero carbon emissions by 2030 along with all its race promoters. While the Zevenheuvelenloop is a foundation that lacks a published climate plan. Its main sponsors are the province of Gelderland, Dustin, Nationale Nederlanden, and Maurten. Another key difference is the ticket prices for both events, where participation of the Zevenheuvelenloop is around 30 euro and spectating is free, tickets for a whole weekend at the Dutch Grand Prix (Dutch GP) start at 250 euro (DutchGP, n.d.-f). Additionally, the Dutch GP is an event which costs millions of euros to organise, and sponsors also pay millions to promote their brand, whereas the costs of organising

the Zevenheuvelenloop will most likely not surpass half a million, meaning the price of sponsoring the event are also lower. These variations can, for one, be attributed to the two hallmark events' distinct legal structures as the Dutch GP operates on making a profit whilst the Zevenheuvelenloops' primary function is to support a social or non-profit cause. This research will investigate the differences of how the organisational characteristics of private limited companies and foundations influence the environmental sustainability decision making process by comparing one to the other.

1.2. Problem Statement and Research Questions

Scientific literature research connecting events and sustainability is becoming a more researched topic in recent years (Allen, 2011; Maguire, 2020; Quinn, 2013), but little research has been found on the organisational factors influencing sustainability of events. By filling this gap effective steps can be taken to address the environmental issues that arise when planning an event. In the absence of a thorough comprehension of how these environmental strategies of events are influenced, stakeholders will lack the ability to execute efficacious strategies in helping make events more sustainable. Additionally, much can be learnt from other events' sustainability strategies that have already been implemented to see what can be adopted and what does not work well.

By conducting a case study on the influence of organisational characteristics of the Dutch Grand Prix (Dutch GP) and on their environmental sustainability strategies, lessons can be learnt from the Dutch GP that can be applied to other events in the Netherlands or around the world and policymakers can more easily understand their reasoning for taking climate measures which in turn help in making effective policy. Next to that, a case study on the Zevenheuvelenloop, a running event praised for its sustainability measures (Appendix C) and located in Nijmegen, will be conducted to see how a foundation is influenced by its organisational characteristics in relation to the creation of their environmental sustainability strategies.

The aim of this study is then to examine how a foundation's and a company's environmental decision-making strategies differ from one another by conducting a comparative case study. Recommendations for sustainable measurements to be taken at events as well as how to best influence these events in taking environmental sustainability actions are then made based on the findings.

A set of sub-questions along with a main research question are made to reach the aim of this research. These questions are listed below, commencing with the main research question:

“How do the organisational characteristics influence the environmental sustainable strategy of the organisation of hallmark events and why? “

Accompanying this are the following sub-questions that will help answer the main research question:

- *What are the criteria for an environmentally sustainable hallmark event?*

- *How do the organisational characteristics influence the environmental sustainability strategies of hallmark events?*
- *How are the environmental sustainability strategies of the Dutch GP and Zevenheuvelenloop influenced by their organisational characteristics?*
- *What policy measures can be implemented in future hallmark events to ensure environmental sustainability?*

An argument can be made that the Dutch GP is inherently not a sustainable company due to its involvement in motorsport which uses valuable non-renewable resources such as crude oil for the use of the Formula One cars and teams and racers travel all over the world via planes (Dingle, 2009; Miller, 2016). The researcher is aware of this contradiction, but this research solely focuses on the organisational characteristics that influence the sustainability strategies of the organisations studied and not on the sustainability of motorsports. Furthermore, the fact that the Dutch GP is part of the motor sporting world is one part of the organisational characteristics and could also influence the decision-making process. This will be researched during this paper.

1.3. Academic and Societal Relevance

1.3.1. Academic Relevance

Environmental sustainability is an emerging area of concern that requires thorough investigation. This research delves into the differences between a foundation and a private limited company in how they are influenced by their organisational characteristics and resource dependencies in their environmental strategies. By comparing the two this study aims to uncover the different influences.

This research fits within the research done on environmental sustainability and events management (Allen, 2011; Maguire, 2020; Quinn, 2013) and adds to it by addressing the gap by providing an insight into how organisational characteristics can influence environmental sustainability at events. Furthermore, this research implements the resource dependence theory made by Pfeffer (1987) and builds on the relationship between the theory and sustainability management as Schnittfeld & Busch (2016) did. Their research revolved around influences of resource dependence and a business's management on sustainable supply chains of the shipping industry. Whereas this research connects resource dependence and organisational characteristics in the event industry, a vastly different industry than the shipping industry, with other characteristics and influences. To finalise, this study can progress sustainable tourism and the field of sustainable event management by filling in the knowledge gaps on factors influencing sustainability of events and making policy recommendations to enhance the sustainability of future events.

1.3.2. Societal Relevance

The research will help shape recommendations for other events on how to best implement sustainability measures at their own events, drawing inspiration from the Zandvoort Grand Prix's sustainable policies and implementations. Next, lessons can also be learnt from the

Zevenheuvelenloop, as they are also a frontrunner in sustainability (Appendix C) and measures taken can also be applied to other events. Additionally, by comprehending how organisational characteristics affects environmental sustainability plans, better policies can be developed by legislative bodies such as municipalities and provinces for upcoming events for both foundations and companies.

Furthermore, these events have significant environmental impacts due to their scale and attendance. By working towards a better understanding of environmental sustainability at events and potentially increasing the effectiveness of the measures taken and policies made this research can also have an impact on attendees' environmental consciousness. Environmental communication is one of the measures that events can take to show what sustainable measures they take at their event and through communicating this visitors can apply the sustainability measures in their day-to-day life. Another way this research is socially relevant is by increasing the transparency of decision-making processes of environmental policies by event organisers and in doing so increasing the credibility of events. Finally, this study will have an impact on four of the 17 Sustainable Development Goals (SDGs) that the United Nations established for global sustainability. Goals 6 (Clean water and sanitation), 7 (Affordable and clean energy), 11 (Sustainable cities and communities, and 12 (Responsible consumption and production) will be worked towards through this research (UN, 2020). It does so by recommending policy measures for events that will positively contribute to the sustainability measures related to the four goals.

1.4. Outline

The research report commences with the introduction of the topic, including the problem statement, the primary research question, sub-questions, and its academic and societal relevance. A literature review is then conducted, followed by a theoretical framework outlining the fundamental concepts, subsequently followed by the operationalisation.

The methods section delves into the research philosophy, followed by the research strategy, the research methods, and finalises with the validity and reliability.

Then, answers are given to the sub-questions and main research question in the results section.

The report is finalized by the discussion and conclusion.

2. Literature review

2.1. Literature Review

2.1.1. *Policy decisions and companies*

Companies are more often being pressured by its stakeholders to work towards sustainable management as environmental awareness is becoming more relevant and environmental damage is starting to increase costs of the life cycle of products (Gadenne et al., 2012). Besides stakeholders' influence and competitive pressures there are also other external pressures to incorporate environmental policies. This includes economic conditions, market trends and innovative technology.

Environmental decisions can also be influenced from within a company. This relates to the value and culture of a company, in terms of the values they believe in, their culture and ethics, but also the long-term goals of the company including their mission, vision and strategic direction they wish to work towards (Gadenne et al., 2012). Furthermore, they tend to make decisions that reduce risk with little uncertainty and make their policies accordingly. Another important factor for organisations to implement environmental strategies is the expertise and resources available to them, when there is little to no expertise, environmental decisions are less likely to be made and implemented, whilst with many available resources, organisations can afford to take a risk when environmental decisions are sometimes more expensive and the benefits unknown (Gadenne et al., 2012).

Research conducted by Kassinis & Vafeas (2006) studied the influence of stakeholder pressure on environmental performance of companies. Their research showed that dependencies vary amongst stakeholders, and how much influence a stakeholder has depends on the level of dependency. The research focused on two stakeholder groups: community stakeholders and regulatory stakeholders. Examples of community stakeholders are environmental groups or organisations which can mobilize communities against or in favour of companies, depending on the environmental practices of the organisation. They influence organisations indirectly through their public policy process, either by lowering the trust of companies or increasing it. Regulatory stakeholders are governments and legislators and influence companies through their environmental regulations, with which they must comply.

To conclude, Aragón-Correa & Sharma (2003) researched the effect of the business – natural environment on the environmental strategy of companies, which includes the day-to-day functioning of a company as well as the stakeholders affecting the company. Environmental uncertainty, complexity and munificence were used to explain the influence on environmental strategies. Environmental uncertainty impacts the environmental strategies because businesses need to adapt to the uncertainties and anticipate changes in regulations, consumers preferences, and market dynamics. Understanding and addressing environmental issues is difficult for companies and can influence environmental strategies when not fully understood correctly. Munificence refers to abundance or scarcity of resources or opportunities. A munificence business environment, which has an abundance of resources and opportunities, allows for the development and implementation of more environmental strategies and understanding this can help leverage the available resources in an effective manner (Aragón-Correa & Sharma, 2003).

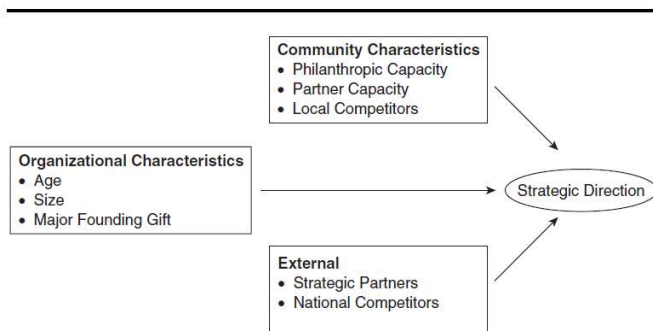
2.1.2. Policy decisions and foundations

According to Graddy & Morgan (2006) the age and size of a foundation are likely to be determinants of strategic choices and policy decisions of foundations. Young and small organisations tend to have less capabilities of implementing strategic decisions as they have fewer resources. Older organisations have more resources and are therefore more likely to effectively implement strategic decisions as they wish. Furthermore, young foundations will focus more on

the donor services to help grow their foundation and gain resources, whereas an older foundation is more likely to act in favour for the community as they already have the resources. Next, large external partners could also affect the mission and strategy of a foundation. This is predominantly done through their funding which can alter the strategy and decision-making process of a foundation. The figure below shows the determinants of strategic direction in community foundations found by Graddy & Morgan (2006).

Figure 1

Determinants of strategic direction in community foundations (Graddy & Morgan, 2006)



The study's findings demonstrated that their partners had no bearing on the strategy they chose; rather, partners were selected in accordance with their strategic judgments, and community foundations were established in accordance with their own strategic goals rather than in response to community partners.

Schuyt et al. (2007) researched the financing of non-profit organisations in the Netherlands, which foundations are a part of, but it must be stated that not all findings apply to foundations as there are differences between the two. Nonetheless, findings are still relevant for this research. First, non-profits were funded by three main sources; government funding, own income, philanthropy (Schuyt et al., 2007, p. 23).

Arguments can be made for and against the government funding of foundations and non-profits which will briefly be discussed here.

Firstly, government funding was a large financier to non-profits and becoming dependent on these resources is deemed a problem as non-profits would determine their strategy to fit within government plans, and by doing so lose some of their societal contributions (Schuyt et al., 2007, p. 26). According to Verschuere & De Corte (2014) organisations that are funded by the government for more than half of their total budget are more likely to choose a strategy that is state-oriented. This is because financial resources are essential for non-profits and adaptations to their original mission to receive financial aid is deemed logical. It was also discovered that funders could put pressure on the non-profit organisation to alter its internal procedures. Their findings showed that in 40% of their cases non-profits decided their mission and strategy themselves, whereas the other would do this in collaboration with their partners or even fully controlled by their main investor (Verschuere & De Corte, 2014). Furthermore, their results showed that dependency on large funders (primarily governments) does decrease their autonomy in decision making. To

conclude, it is stated that governments focus on the target audience reached and the quality of the service delivered by the non-profit organisation (NPO), rather than intervening in the internal process of the NPO. This research further shows the dependency of large external donors as mentioned by Graddy & Morgan (2006); Schuyt et al., (2007).

Another argument is made that government funding is “public money” as it is indirectly paid through taxes (Brody & Tyler, 2009). Therefore, foundations and non-profits are expected to adhere to the wishes of the government as they should serve the public. Their research concludes that this is a wrongful use of the words “public money” and that it in fact not the case.

Furthermore, they warn that losing autonomy and independence can have serious consequences for foundations, but found that at the time of writing this was not the case (Brody & Tyler, 2009). Almog-Bar & Zychlinski (2014) make the argument that foundations influence the policy of the government and act as agents for policy change. They collaborate with governments as one of the many ways they promote and initiate new policies. They researched powerful philanthropic organisations with strong ties to politics and concluded that governments need to lead and steer policies, recognize each other as partners and, be able to delegate some of its power towards foundations (Almog-Bar & Zychlinski, 2014).

On the other hand, government fundings can also prove to be beneficial and create new opportunities for foundations (Abdullah et al., 2024; Lu, 2018). It was found that there is a mutual dependence between the two collaborating together, on the government side by achieving policy goals through the non-profits as non-profits often have strong ties with the community, making policies more effective. Non-profit organisations on the other hand are reliant on the government’s funding and will alter their policies to maintain the flow of finances. Next, the government funding provides the foundation with stability, allowing them to support policies set by the government. It is said that a lack of resources is the primary reason for non-profits not to engage in policy advocacy (Lu, 2018).

The researcher also makes a negative association with government funding. According to Lu (2018), applying for grants requires a significant amount of work, which depletes foundations' valuable resources. When numerous nonprofits compete for government funding, foundations lose sight of their mission as agents of social change and instead become more concerned with their own interests and obtaining the funding.

Next, volunteers that work for NPO’s are an important influence on the organisation according to Verschuere & De Corte (2014). Volunteers that work for non-profit organisation are generally driven by the mission of the non-profit and will work to keep that mission in stance, acting as a control over the non-profit and ensuring that the organisation sticks to their mission and beliefs, thus increasing the autonomy in a positive way. And last, money was also a crucial component. It was discovered that the non-profit organisations’ autonomy in making decisions was negatively impacted if more than half of the funding came from a single source (Verschuere & De Corte, 2014).

Another research conducted by Brandsen & Pape (2015) critically analysed the relationship between the government and NGOs in the Netherlands as well. In line with other findings, NPO’s

were becoming increasingly dependent on government fundings in the Netherlands and in that way lose part of their autonomy.

Lastly, Anheier & Daly (2007) researched philanthropic foundations and their politics. Foundations are found to be political because their legitimacy is dependent on rules and structures set by governments and politicians. However, it is argued that foundations are one of the freest legal forms as they are less restricted by rules and regulations from governments, this allows them to take more risks and take another path if wanted. Additionally, foundations are deemed to be more trustworthy than businesses in the private sector as their main goal is not to make a profit but help civil society.

2.1.3. Environmental sustainability at events

Although the terms "sustainability" and "sustainable development" at events are new, an increasing number of event planners are incorporating sustainability into their event design (Mair et al., 2023; Trendafilova et al., 2014; , 2013). This is followed by an increase in research on sustainability at events, with sustainable mobility being one of the most researched areas as visitor mobilization counts for most of the emissions produced by an event (Connolly et al., 2016; Mascarenhas et al., 2021; Peeters et al., 2019). Additionally, most research on environmental sustainability of events focused on one of the four subjects; environmental impacts, sustainable event management, environmental policies, and environmental event stakeholders (Cavallin Toscani et al., 2024). But first, what is sustainability or sustainable development? The most known definition of sustainable development comes from Brundtland report and is cited as following:

"Sustainable development seeks to meet the needs and aspirations of the present without compromising the ability to meet those of the future" (Brundtland, 1987, p. 39)

In terms of events, the primary focus has been on economics and how the event benefits the local stakeholders and the place in which it is conducted (Schlenker et al., 2010). In recent years, social and environmental aspects have become more important for event goers, which leads to event organisers taking these aspects into account for their event management as well (Holmes et al., 2015a). According to Laing & Frost (2010), when an event has a sustainability policy and/or implements sustainable practices an event can be classified as a 'green' event. The following section will give an overview of the scientific literature on sustainability at events.

Holmes et al. (2015b) researched the internal and external environment to manage sustainable events to help understand the complex environment in which events are managed. The internal environment relates to the people who are part of organising the event and consists of the time, people, space, materials, information available for an event, understanding these can help make sustainable decisions when managing an event (Holmes et al., 2015b). Following is the external environment, stakeholders such as the host location, its community, sponsors, and media groups, among others are part of the external environment and can have copious amounts of power on events and sustainability. If both the internal and external environment are understood the first

step towards the development of sustainable events is made. Through their public policy governments also have an influence on the sustainability of events according to Holmes et al. (2015b). Governments tend to use events for their economic and tourism attraction and events are often valued based on their economic performance but also for their public good or political ideology. Three ways of involvement of governments are recognized by Holmes et al. (2015b), starting with doing nothing, and letting the free market do its thing. Event managers then have free responsibility on environmental choices. The second approach is the regulatory approach. This is applied when the free market fails, and social equity is threatened so regulations need to be implemented. The last approach is the interventionist approach and is the most used approach. When governments believe the event contributes to public goods, they are likely to intervene in some way, for example through sponsoring the event. Lastly, environmental policies are used to increase the sustainability of events as they must be taken into account in event management (Holmes et al., 2015b).

Research by Fyall & Jago (2009) highlighted the importance of sport and tourism events as they are becoming more economically and socially important and therefore an understanding of the relationship between sustainability and sport and tourism is vital. They found that it is essential to understand the impact sports and tourism has on the external environment from an ethical perspective, so that they can be better managed, much like the work by Holmes et al. (2015b). The impact of changes to the external environment is also important to understand for the sustainability of sports and tourism to ensure long-term sustainability (Fyall & Jago, 2009).

More research on environmental sustainability of events has been conducted by other researchers (Trendafilova et al., 2014; Yuan, 2013) and found that there is an increase in environmental sustainability of events. (Trendafilova et al., 2014) claimed that sport events have the potential to promote environmental sustainability towards the larger audience through their events and can be role models for the larger community. Yuan (2013) argues that events need to take sustainability into account in all stages of event planning, from the planning stage with stakeholders to promoting sustainability with its visitors.

The environmental impact of events has also been researched (Cerezo-Estevé et al., 2022; Dolf & Teehan, 2015). Cerezo-Estevé et al. (2022) identified positive and negative impacts of large events. These are important to consider during this research because it can help make sense of why environmental policies are required or not and help justify the decisions taken by event organisers. Positive impacts were an improvement of infrastructure in the hosting city to accommodate the tourists and air pollution was decreased in the city as well. The transport industry was most positively impacted by large events as renovations to roads and transportation facilities such as train stations were often made. More importantly, it was found that citizens became more environmentally friendly after the event because they could make use of the recycling bins and green infrastructure placed before the event took place. Contradicting this are their studies that researched the negative impacts of events, which are larger than the positive impacts. An increase in pollution is one of the main problems of large events. This can be air,

waste, noise, or water pollution (Cerezo-Esteve et al., 2022). Other negative impacts identified are the lack of a proper sustainability program and lack of environmental responsibility. Their main findings showed that till date large events still have more negative environmental impacts associated with them, but the increase of research in this area over the past years shows that there is an increasing concern over environmentally friendly events.

Event greening or green measurements for events have been researched by multiple authors (Diederichs & Roberts, 2016; Wang et al., 2019). Greening events gives the hosting city multiple opportunities to address climate protection such as creating jobs, renewable energy generation, and an opportunity to show innovative technologies in climate protection. Diederichs & Roberts (2016) also argue that events should take care of their hosts cities after an event has taken place and not neglect the area, this can help with the long-term sustainability of the host location. Wang et al. (2019) examined green events and identified the present and absent factors in the greening of an event in China. 'Greening' events means reducing the waste, improve the transportation system and other efforts to protect the environment. Sustainable transportation is key for a green event as the transportation has strong links with energy consumption, greenhouse gas emissions, and air quality. Some examples of 'greening' practices used in the case study include water conservation, reduction of gas emissions from vehicles, car restrictions, nature protection, increasing green spaces, green message communication and education.

2.2. Theoretical Framework

2.2.1. Key concepts

This chapter discusses the relevant key concepts for the research and provides definitions of each of them based on existing scientific articles.

Environmental sustainability criteria

A set of criteria is required to have guidelines to analyse the environmental sustainability of hallmark events and determine whether they incorporate environmental precautions into their agenda. The criteria found by Cavallin Toscani et al. (2024) who examined several publications to identify a set of eight criteria pertaining to operational green practices, will be applied in this study. The following criteria were stated, and each will be covered in more detail below: carbon offsetting, water management, energy management, transport management, waste management & circular economy, green communication, green procurement, and ecological conservation. How these criteria are assessed for this research will be explained in the methodology.

Carbon offsetting:

Identified by Connolly et al. (2016) and Diederichs & Roberts (2016) as being part of running an environmentally friendly event, carbon offsetting is the last measure that can be taken to increase environmental sustainability (Hyams & Fawcett, 2013). It allows events to purchase emission reductions through other projects around the world to meet their personal emission reduction targets (Bumpus & Liverman, 2008). The use of carbon offsetting schemes is still debated as it is

questioned whether they actually deliver what they promise and is more of an ethical motivation to clear conscience instead of being a solution to climate change (Hyams & Fawcett, 2013). This is why it is seen as a last measure to be implemented here.

Water management:

When it comes to events, sustainable water management refers to methods for minimizing water use and avoiding contaminating water sources. Events use water and generate wastewater, so to have a successful, sustainable event, the planners must be aware of how their actions affect the water resource (Intason et al., 2021).

Energy management:

Reducing the consumption of electricity where possible and using green energy as a primary source for electricity when it is available, either through production or purchasing of green electricity. Currently most festivals use diesel-powered generators and reductions to energy consumption could be made by using more efficient equipment, switching equipment off when not in use, using the correct generators and using green energy instead of fossil fuels (Fleming et al., 2014).

Transport management

This relates to reducing the environmental impact of the attendees and any other logistics related to an event. Multiple studies have found that visitors have a significant impact on the environmental sustainability as they emit copious amounts of greenhouse gasses through their travel as their main choice of transportation is often still the car (Collins & Potoglou, 2019). Encouraging sustainable transportation modes such as the train will reduce greenhouse gas emissions, congestion, and make the event more sustainable.

Waste management & circular economy

Reusing, recycling and disposal of the waste generated by an event. This includes not using plastic for food cases, no plastic cups, or reusable plastic cups, sorting waste, not using paper flyers for communication. It was found that plastic is the largest contributor to waste at events and should therefore be reduced to as little as possible (Collins & Potoglou, 2019).

Green communication

All the activities involved in communicating green initiatives to stakeholders and attendees to actively engage them in the mitigation of the environmental impact of an event. It aims to educate stakeholders on the (negative) environmental impacts of events to encourage behavioural change and increase knowledge on (environmental) sustainability (Tölkes & Butzmann, 2018).

Green procurement

Part of the sustainable supply chain management aimed at reducing the impact related to the life cycles of goods and materials used at an event. Alberg Mosgaard (2015) define sustainable or green procurement as “the procurement of products or services that have a reduced environmental impact compared with other products or services that serve the same purpose, or products that meet certain predefined environmental criteria” (P.265).

Ecological conservation

Everything related to the conservation of natural habitats, applicable to events that are situated in sensitive natural areas. Events in sensitive areas can typically damage the natural environment through soil erosion, damage to vegetation, disturbance of (protected) animals, noise and water pollution and vandalism (Malchrowicz-Mosko et al., 2019).

Hallmark events

There are several sorts of events, examples include mega-events, which have high organisation costs (>5 billion USD), large reach (>1 billion USD in television rights), sells vast amount of tickets (>1 million), and high capital investment (>5 billion USD). An example is the Football World Cup. Another sort of event is major events (> 1 billion investment costs, > 0.1 billion television rights, >1 billion capital investment, and > 500.000 tickets sold). Next, there are giga-events (i.e. Olympic games) which sell more than 3 million tickets, have more than 2 billion in television rights, costs more than 10 billion USD to organise, and require more than 10 billion in capital investment (Müller, 2015) and hallmark events (i.e. Australian Open) (Getz et al., 2012) Hallmark events will be defined below. This research will analyse the environmental sustainability of hallmark events. Brent Ritchie (1984) defined hallmark events as “Major one-time or recurring events of limited duration, developed primarily to enhance awareness, appeal and profitability of a tourism destination in the short and/or long term. Such events rely on uniqueness, status, or timely significance to create interest and attract attention” (P.2). Getz et al. (2012) added the term sustainability to this which required an event to provide residents with definite benefits and keep the support of all important stakeholders to be termed sustainable. Furthermore, the size of hallmark events is not a defining characteristic, but they should lead to a significant impact on tourist attractiveness and increasing the image of the destination. As mentioned by Getz et al. (2012), hallmark events have three main principles. Firstly, hallmark events attract tourists, create a positive image linked to the destination, and deliver multiple benefits to residents. From there the second principle can be identified. This is when a hallmark event is taken for granted and the event and city are intrinsically connected to one another. Lastly, the third principle is one that is optional and relates to identity and community building through hallmark events. Ownership is also a key factor for hallmark events since the public must feel involved with an event and that they are part of the ownership, this can be done through involving the public or running the event as a non-profit organisation. Cities also tend to protect hallmark events that are linked to the city or will even bail them out when needed. An understanding of sustainability is vital for a hallmark event (Getz et al., 2012) because stakeholders such as governments, sponsors, media, and visitors are on a constant watch and should therefore show green initiatives and corporate social responsibility which clearly benefit the host destination.

Legal form

Two separate legal types of hallmark event organisations—which must first be defined—will be the subject of this study. Since both organisations under study are in the Netherlands,

definitions from the Dutch government will be applied here.

The private limited company will be the first type of legal structure examined. The Zandvoort Grand Prix, also known as the Dutch GP Race B.V., will be the subject of this study. As an employee of the B.V., you are representing the private company, which is a legal personality accountable for the debts. The shareholders hold the most power in the company but, unlike a joint-stock company where shares can be traded freely, shares are bound by name and the name will have to be adjusted if sold. They have a say in the direction the company chooses to go and the stakes of the company are important to them (Netherlands Chamber of Commerce, n.d.-b).

The foundation is the alternative legal form. A foundation is an organisation whose main goal is to support social or nonprofit causes; it is not intended to turn a profit. Donations, loans, subsidies, and bequests all generate revenue. Funds can also be raised through commercial operations, but the proceeds must go toward the foundation's primary goal. A foundation's board makes all the decisions; unlike a private company, it has no shareholders who exercise ultimate power or say in how the foundation is run. Because the foundation is a legal entity, its liability is the same as that of a company. Board members are not accountable for debts unless there is mismanagement, carelessness, or an official registration gap (Netherlands Chamber of Commerce, n.d.-a).

2.2.2. *Resource Dependence Theory*

The resource dependence theory will be used to explain the factors influencing the environmental decision-making processes of private limited companies and foundations and if the organisational characteristics influence the decision making of both legal forms. This section will first introduce the resource dependence theory, then a link between the resource dependence theory and companies will be made, followed by a link between foundations and the theory. The theory will be used in answering the following two sub questions:

- *“How do the organisational characteristics influence the environmental sustainability strategies of hallmark events?”*
- *“How are the environmental sustainability strategies of the Zandvoort Grand Prix and Zevenheuvelenloop influenced by their organisational characteristics?”*

Firstly, the resource dependence theory, or RDT, recognizes that organisations, companies, or foundations, are part of an open system and are dependent on their external environments to continue their activities (Hillman et al., 2009). To understand an organisation fully you must understand the environment and context of an organisation and not just the internal factors (Hillman et al., 2009). In this environment resources are needed for the survival of organisations, these resources can be financial resources, human resources, or material resources and are often obtained through the external environment of an organisation (Ilyas et al., 2020).

In relationships between organisations, where resources are needed for one organisation to function and the other organisation possesses the necessary resources, the theory explains how resources are used. An uneven relationship is created between the organisation holding the resources needed and the organisation that is in need of the resources as the holding organisation

can decide to give them or not or will ask for something in return, having power over the organisation requiring the essential resources (Arik et al., 2016). Furthermore, it is said that managers and organisations can try to reduce the dependence on resources and decrease the uncertainty resulting from this dependence of other stakeholders (Hillman et al., 2009). In this way they reduce the power other organisations have over them, and at the same time organisations often will try to increase their power over other organisations. Pfeffer (1987, p 26-27) provide five basic arguments of RDT and relationships between organisations:

1. “The fundamental units for understanding intercorporate relations and society are organisations; ours is a society of organisations.”
2. Organisations are not autonomous but rely on other organisations from within their network.
3. Interdependence and uncertainty of the actions of the dependant organisation leads to questions if survival and success are not always certain, which in turn results in argument four.
4. Organisations take actions to avoid uncertainties and decrease the interdependency on another organisation, although these in turn result in new dependencies and interdependencies
5. Dependence creates power differences between organisations and within organisations which have effect on the behaviour of organisations.

Organisations are likely to comply with the demands made by the organisations which have control over the resources as they are necessary for the survival (Pfeffer, 1987). Uncertainties are reduced by building coalitions with others, creating formal and informal relationships, or by bringing in more resources into the organisation (Arik et al., 2016). Both companies and foundations experience resource dependence from their external environments, which will be discussed below.

Critical resources are described as resources that an organisation needs to continue functioning (Revue et al., 2008). In the case of foundations these critical resources are primarily monetary resources and volunteers on which foundations are dependent on. It assumes that organisations try to avoid or lower uncertainties as much as possible, the uncertainty here is the environment on which the organisation is dependent. This uncertainty increases as the dependency increases and organisations will try to look for other actors to become less dependent on one certain actor but spread the uncertainty across different actors (Revue et al., 2008).

Resource dependency can result in political problems that lead to political solutions. The political power that a resource-rich organisation has can be used to control the activities of a resource-dependant organisation (Johnson, 1995). This constrains the resource-dependant organisation in making certain choices as they must comply with the demand of the resource-rich organisation. Leaders try to adapt and manage external dependencies to be able to ensure the continuation of the company, this means compromising and meeting the demands of other organisations to obtain resources needed. They secondly try to minimize the effects the external constraints on

their internal decisions, and lastly, to enhance present and future adaptability they try to maximize autonomy (Johnson, 1995). To sum up, they try to mitigate the negative effects of external dependency as much as possible.

Resource dependence and companies

Pinheiro et al. (2023) researched how board attributes are a key resource for companies in achieving greater environmental benefits. They argued that the board of a company is a vital resource as it manages the uncertainties and dependencies of the external environment in which the company operates. Companies that have a board with a variety of experiences and knowledge can lead to a competitive advantage and strategic change and helps in managing the different stakeholders in a fair manner. They are part of the decision-making process of organisations where they determine the objectives of the company, are responsible for their corporate social responsibility, define policies, monitor the financial status of the company, and communicate corporate decisions (Pinheiro et al., 2023). These explanations highlight the significance of a board's characteristics for environmental policies, including its size, gender diversity, frequency of meetings, and inclusion of a sustainability committee. Having a sustainability committee shows that a company is devoted to increasing their sustainable development and increasing the number of women within a board has also shown to improve environmental sustainability as they are more sensitive and consider multiple stakeholders (Terjesen et al., 2009). Their results showed that overall, a stronger board leads to better environmental strategic choices (Pinheiro et al., 2023). Larger board sized have more experience and knowledge on environmental strategies, leading to better decision-making. In connecting this with the resource dependence theory the board (organisational resource) can use their knowledge and experience to create connections with external parties and lower uncertainties. Furthermore, their research showed that companies with a sustainability committee increases the environmental sustainability of companies; they are more responsible for natural resources, they publish reports that include environmental information of the company and see the importance of sustainable development and increases their transparency on their environmental actions. Pinheiro et al. (2023) claim that having an environmental committee is a resource to manage uncertainties related to the company. Lastly, the size of a company and the profit it makes is also found to be linked to an increase in environmental sustainability; larger companies have more stakeholders and resources available to them which can be used to invest in sustainability (Pinheiro et al., 2023).

Mehedi & Jalaludin (2020) claimed that the resource dependency theory is an appropriate framework to explain the role of governance in conducting environmental activities of companies. Again, here the board is the vital resource for the company that has connections with the external environment and has the capability to reduce the dependence of an organisation. The research further showed the importance of education and expertise in driving green innovation. Next, directors can also play a vital role in environmental sustainability of a company as being a vital resource for a company (Asni & Dianawati, 2024). They can make vital resources available through

their connections with others and their communicative abilities. Furthermore, the managers and directors have the responsibility to manage a company according to the vision and mission, and if these are related to environmental goals the organisation is more likely to work towards this (Asni & Dianawati, 2024). According to Issa et al. (2022) education is the most valuable resource of a company as education can increase the human capital of the directors and managers. As mentioned previously the knowledge and expertise can help make better environmental decisions.

However, resource dependence does not always lead to environmental sustainability at events as Schnitfeld & Busch (2016) showed. They researched the sustainability within supply chains and how this is affected by resource dependence. The research showed that sustainability can be an important driver for companies to reduce uncertainty and will comply with the demands made by the organisation providing the critical resources. But they also showed that when sustainability is not asked for by the providing organisation, a company's own motivation can also positively influence sustainability through their mission and vision. When both organisations do not implement sustainability in their practice, it is less likely that sustainable measures will be implemented at the organisation who needs resources (Schnitfeld & Busch, 2016).

Resource dependence and foundations

The literature review showed that foundations' decisions can be influenced by resources and political demands such as new policies (Graddy & Morgan, 2006; Schuyt et al., 2007; Verschuere & De Corte, 2014). This is why the theory of resource dependency will also be used to explain the influence here.

Non-profits do not only face external pressures but also internal pressures from managers to reach the mission and goals the organisation has set for themselves (Ilyas et al., 2020). For their functioning they rely on volunteers to work for them, making them a vital resource for non-profits in order to deliver sustainable services to the community in which it operates (Ilyas et al., 2020). Volunteers work for foundations without needing any personal gain in return for their provided services but they are often motivated by the foundation's goals and mission (Ilyas et al., 2020; Verschuere & De Corte, 2014). Foundations and non-profits work with limited resources and on the demand side is the mission and social cause of the organisation and on the supply side the financial sustainability and volunteers are vital resources (Ilyas et al., 2020). Achieving what is stated as the mission of a non-profit is vital for the success of an organisation and to reach this goal financial resources as well as volunteers are needed.

Arik et al. (2016) further found that the board of directors also plays a vital role in non-profits in obtaining vital resources, much like they do in companies. They are also an important link to social networks and financial resources that are needed for their survival and are considered as human resources. Again, just like with companies, a larger and more diverse board will decrease the external uncertainty by having more experience and expertise available (Arik et al., 2016). Guo & Acar (2005) stated that smaller organisations are more inclined to collaborate with others as they

need vital resources, whereas larger organisations have more resources available to them and do not always need collaborations to sustain themselves.

In implementing environmental policies governments are likely to use non-profits as a means of delivering their policies more effectively since non-profits often have strong grassroots that are better in influencing local societies (Abdullah et al., 2024).

In relation to non-profits Nikolic & Koontz (2008) claimed that there is a positive link between environmental sustainability of non-profits funded by governments. Their findings showed the different channels via which governments can influence non-profit organisations in the environmental sector. In addition to providing additional financial, human, and technical resources, government institutions and actors can influence how NPOs frame problems and potential solutions. How an NPO is governed and how it makes decisions can also be influenced by government policies and programs. It is important to note that not every grant recipient will experience the same level of governmental impact from these pathways; factors like the group's mission, prior tactics, and leadership composition—specifically, whether or not group leaders work for government agencies—all matter (Nikolic & Koontz, 2008).

2.3. Operationalisation

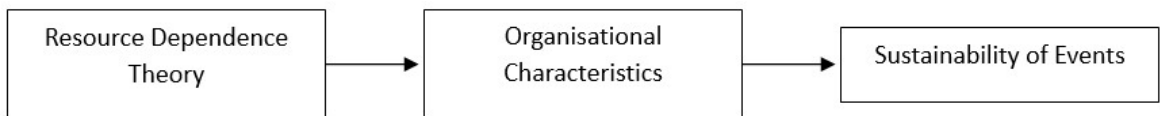
This paper will research how the sustainability of events is influenced by the organisational characteristics of the event organiser and/or by the resource dependence theory. The literature review showed that event organisers can be influenced by their external environment in improving their sustainability and implementing environmental strategies. Event organisers would increase their sustainability to ensure future resources and reduce uncertainty. In the scenario that the parties holding the resources do not prioritise sustainability there is less of an incentive for the event organiser to be sustainable but would rather focus on other aspects to obtain the vital resources.

Furthermore, the type of organisation including their characteristics, such as age, size, expertise, presence of a sustainability board, turnover, and legal form are also believed to influence the sustainability of a company. If an event organiser has no interest at all in implementing sustainability out of their own motivation, they are less likely to implement any sustainability practices unless they are being told to do so by their external stakeholders from whom they are dependent on or by policies made. On the other hand, there are also event organisers that are not influenced by external resources as much but find sustainability important and will therefore implement sustainable measures out their own motivation. Next, there are event organisers that are neither motivated by their own motivations as well as their external partners from whom they are dependent on. Then it is likely that the event will not implement sustainable practices during their event. Lastly, there are organisers who are influenced by their external parties as well as their own motivation, leading to a sustainable event. This does not have to mean that the event is more sustainable than an event that is only influenced by their resource dependence as each event has different interpretations as to what they find to be sustainable and important.

The conceptual framework shown in figure 2 depicts the simplified version of the influence on the resource dependence and organisational characteristics on the sustainability of events. As discussed above, the resource dependence can influence sustainability negatively as well as positively, dependant on what the external partners demand in return for their resources. Next, the legal forms looked at were foundations and private limited companies. Age, mission and vision, size, expertise, environmental board, and expertise all affected foundations and private limited companies and are part of the organisational characteristics, along with the legal forms. These can also influence the sustainability of events negatively and positively but not when resource dependence also plays a role in pushing environmental sustainability. Sustainability of events is then determined by the eight environmental criteria: carbon offsetting, water management, energy management, transport management, waste management & circular economy, green communication, green procurement, and ecological conservation. If events have taken multiple of these measures into account, they are deemed more sustainable than an event which has implemented just one or two of the criteria.

Figure 2

Conceptual framework



3. Methodology

3.1. Research Philosophy

Research philosophy is an important part of research methodology as research can only be meaningfully and appropriately interpreted when the reader has an adequate understanding of the philosophical principles and theoretical understanding of the discipline (Moon & Blackman, 2014). This is why the research philosophy is presented here first. Two primary philosophies are important for the research philosophy: ontology and epistemology. Ontology is defined as “what actually exists in the world about which humans can acquire knowledge” (Moon & Blackman, 2014, p. 1170) and epistemology is concerned about with how people fabricate knowledge and what is possible to know (Moon & Blackman, 2014). What originates from these philosophies are the philosophical perspectives, which shows what beliefs guide action. This section will provide the researchers’ philosophical perspective, backed by the ontological and epistemological views of the researcher.

The researchers’ philosophical perspective is that of a postpositivist. Postpositivism is objectivist but assumes that humans can never fully understand reality and to identify a valid belief multiple methods are needed as all methods have their flaws (Moon & Blackman, 2014). The absolute

truth is therefore not tenable through science (Levers, 2013). It is said that the postpositivist paradigm has a critical realist ontology and an objectivist epistemology (Annells, 1997). The ontological perspective calls for rigorous, precise and logical reasoning, and evidence is important, but it is not just bound to what can physically be observed (Levers, 2013). Furthermore, the researcher has an objectivist epistemological view. Objectivists assume that reality exists independent of the individual mind and an objective 'truth' that is verifiable, valid, and generalizable can be found (Moon & Blackman, 2014). By collecting and analysing evidence claims can be corroborated and correlated to the real world (Moon & Blackman, 2014). Postpositivists therefore try to come closer to the truth but accept that knowledge is prone to error as it is shaped by different contexts. But, a postpositivist trusts that an objective research will help bring the research closer to the truth (Levers, 2013). This research will therefore use multiple methods to answer the sub questions and main research question to come as close as possible to the truth, accepting that errors are still possible.

3.2. Research Strategy

An inductive approach was used to answer the research question as the research did not reject or accept a hypothesis, but arrived at a general conclusion (Lowhorn, 2007). Furthermore, a qualitative research design was adopted for this research as it helped describe and understand reality in the context where many actors and phenomena occur (Van Thiel, 2014). Creating one true reality in this research is complex and therefore the reality is best expressed in words through qualitative research, instead of using numbers, which is used in quantitative research (Moses & Knutsen, 2019). Desk research along with two case studies were conducted to answer the research questions. A case study on the sustainability policy of Zandvoort Grand Prix was studied along with a case study on the Zevenheuvelenloop and their sustainability policies in order come to a detailed comparison of the different cases, these cases will be explained in further detail below. Existing data was explored through desk research. Primary material in the form of reports made by companies or newspaper articles and legal documents was analysed as well as secondary data from earlier research findings was used to help answer the research questions. Sub questions one and two were primarily answered through previously conducted research in the form of secondary data. And sub-questions three and four were primarily answered through the case studies conducted through the help of document analysis, primary data and by conducting interviews. The findings of all sub-questions were then used to answer the main research question and come to a conclusion.

3.3. Research Methods

3.3.1. *Applied research methods*

The research methods that were applied to this research were interviews, in the form of semi-structured interviews, content analysis, through textual analysis and lastly, meta-analysis was conducted. How these methods were applied will be discussed below.

It was chosen to hold semi-structured interviews because it offered a flexibility that was not available in structured interviews (Fylan, 2005). This flexibility allowed for different and more in-depth questions to be asked as they arose during the interviews, helping the researcher gain a better understanding of the sub-questions and main research question. Three interviews were held with experts on their field of experience. The interviews were held with people directly or indirectly involved in the sustainability of the Zandvoort Grand Prix or of the Zevenheuvelenloop, this included people from the organisation of the Zandvoort Grand Prix itself, and within the province of Gelderland.

Content analysis of documented material from the case study was done along with textual analysis to see whether phrases or words in policy texts can be related back to implementations in the field (Van Thiel, 2014).

Finally, meta-analysis was also used during this research. Meta-analysis brings together all sorts of previously conducted research, with the goal of arriving at a new conclusion (Van Thiel, 2014). Previously conducted research on influence of legal forms was compared to each other to discover certain patterns, to show where knowledge was lacking, or where studies were conflicting.

3.3.2. *Selecting the cases*

The cases of the Dutch GP and Zevenheuvelenloop were selected based on a few criteria. Firstly, cases were selected based on the legal forms, one being a private limited company, and the other a foundation, the information for this was retrieved by the websites of both events. Then, the three main principles of hallmark events defined identified by Getz et al. (2012) were applied to the event organisers. This meant that the event is either a one-time or yearly recurring event that leads to a significant impact on tourist attractiveness and increases the image of the destination. The second principle is when the event is taken for granted in the location in which it takes place, in other words, the event and location are intertwined with one-another. The last principle is that the event relates to identity and builds the community in which it is situated. In terms of sustainability, events were chosen that had taken environmental sustainability measures, the measures researched were based on literature conducted by Cavallin Toscani et al. (2024). This was identified through webpages of both organisations, then an interview was held to go more into depth on the different sustainability measures. Additionally, a reason that the Dutch GP was chosen because it was an important case for the province of Noord-Holland to study, as they wanted to know more on sustainable mobility of the Dutch GP and learn from this. At first, both cases were supposed to take place in the same province, ensuring that the location of the event did not influence the cases in a way. But, with little replies for interviews by foundations located in Noord-Holland, other foundations in the Netherlands were approached. The Stichting Zevenheuvelenloop was selected because previous contact with the province had already been made before and was known to be an organisation actively involved in sustainability. The next section provides a brief contextual overview of the two selected cases.

3.3.3. *Brief overview of the cases*

Dutch GP B.V.

The Dutch Grand prix is a yearly recurring event that takes place near the end of August in the municipality of Zandvoort, located in the province of Noord-Holland. It is a three-day event that starts on a Friday and ends on a Sunday, with the formula One race. It returned to the Formula One calendar in 2021 and has a contract till 2025 with the Formula One. The event attracts 300.000 visitors throughout the weekend and has 1300 volunteers working for the event (DutchGP, n.d.-a). Ticket prices range from sixty euro for a single day ticket, to almost 1500 euro for the whole weekend and in-between (DutchGP, n.d.-f).

The Dutch GP is one of twenty-four race organisers around the world and a contract with the Formula One Management has to be signed to be able to host the Formula One race. Besides the Formula One race, the race circuit hosts other events such as race days and races of other motor sports. This is not organised by the Dutch GP B.V., but by the Circuit Park Zandvoort B.V., a partner of the Dutch G.P.

Stichting Zevenheuvelenloop

The Stichting Zevenheuvelenloop was founded in 1984 and organises three running events: the Zevenheuvelenloop, the Alfa Lavel Stevensloop, and the Zevenheuvelentrail & -hike (NN Zevenheuvelenloop, n.d.-d). It takes place in the centre of Nijmegen, in the province of Gelderland.

A team of ten people are on the payroll, with 1500 volunteers helping during the race weekend. The Zevenheuvelenloop takes place mid-November over two days, starting in the evening (NN Zevenheuvelenloop, n.d.-c). It attracts 33.000 runners and the same number of supporters (Appendix B). The main sponsors are the province of Gelderland, Dustin, and Nationale Nederlanden.

To participate in the race, a registration fee of 26,95 euro is to be paid (NN Zevenheuvelenloop, n.d.-c).

3.3.4. *Semi-structured interviews*

The process of selecting the interviews, conducting them and other remarks on the interview are discussed in this chapter.

Three interviews were conducted during this research, with a representative of the Dutch GP, of the Zevenheuvelenloop, and an advisor on event sponsoring of the province of Gelderland. It was no random selection process as experts on their respective areas of expertise needed to be interviewed. Through a process of snowballing the correct expert was found each time as it was often not a direct link with the correct person. Once the correct interviewees had been found an email was sent explaining the aim of the research and of the interview long with providing the opportunity to ask any further questions beforehand. Interview were also planned through email communication. Interviews were either conducted online, through Microsoft Teams, face-to-face or via the phone.

Representatives of both organisations were chosen because they could go more into depth in their sustainability policy and why they had made the choices during the interview. It allowed for a conversation on more than what was already on the website but at the same time confirmed what was on there was still correct. An advisor on event sponsors was also interviewed to determine whether their policy could have any effect on the organisation, as sponsors were discovered to be influencers on sustainability policies of foundations.

For all interviews an interview guide was setup, except for the Dutch GP, the reason for this is explained below. The interview guides used can be found in the appendix attached. Separate interview guides had to be made because the information that needed to be gathered differed per interview. The interview guides were used as an aid to help the interviewer follow the general lines of the interview but still allow for a free-flowing conversation. The length of the interviews ranged from 30 to 45 minutes and were recorded, with consent of the interviewee.

The interviews were transcribed by the researcher soon after the interviews were held and with the help of notes made during the interview. To ensure the anonymity of the participants, names were removed as well as any other recognisable details. To ensure accuracy the interviewees were provided with the transcript of the interview afterwards.

In the case of the Dutch GP an interview via telephone was held. This was not the intention of the researcher as no date for an interview was set and it was believed that the call would be made to plan an interview at a later date. This also meant that no interview guide was made for the Dutch GP at the time. Because the interviewee had already indicated to be short on time and have a busy schedule the interview via telephone was used for this research as it provided the most essential parts. During the conversation, the researcher was writing along with what was being said and straight afterwards the notes were arranged and made into a summary of the main finding. This was sent to the interviewee for confirmation of accuracy.

3.4. Data Analysis

The software Atlas.ti was used to analyse the data that had been gathered. The three phases of coding, as recognized by Corbin & Strauss (1990), that were applied were open coding, axial coding, and selective coding.

Open coding is the process by which data is broken down analytically in which events, actions or interactions are compared to one another in the search for any similarities or differences. Additionally, similarities are categorized into groups to easily identify them (Corbin & Strauss, 1990). When analysing the transcribed interviews, a first layer of coding was applied with initial findings. Here green practices would be identified, reasons for taking sustainability measures/ making sustainability policies are found and coded as well as organisational characteristics such as the company age and size are identified through coding. The interviews with the foundation and with the company were not coded differently from each other.

Axial coding is the next phase of coding. Here, the categories identified through open coding are

related to their sub-categories and the relationships are verified against data. Besides that, categories are developed further to find any missing parts (Corbin & Strauss, 1990).

For this research, the environmental measures identified were put into the group of 'green practices'. A group that consisted of the codes 'mission', 'size', 'attendees', 'age', 'location' and 'internal motivation' was named 'organisational characteristics'. Examples of the codes will be given in the results section. Then, other forms of sustainability were also identified through the analysis. Because this research focuses on the environmental sustainability, one distinct group was made of economic and social sustainability. Again, the interviews with the Dutch GP and the Zevenheuvelenloop were not coded differently during this phase of coding.

Lastly, selective coding was done and is defined as "the process by which all categories are unified around a "core" category, and categories that need further explication are filled-in with descriptive detail" (Corbin & Strauss, 1990, p. 14). The main findings of the study are represented in the "core" category. Because this study researches the differences between the organisational characteristics of foundations and of private limited companies, two "cores" were created, which combined the groups into the two cores "organisational characteristics influencing foundations' environmental decision making" and "organisational characteristics influencing companies' environmental decision making." By creating the two cores, a comparison between the differences could easily be conducted.

3.5. Validity and Reliability

Validity and reliability are important to consider in research and are therefore explained in the following section.

The reliability of a study refers to the accuracy and consistency of the measurements of variables and to what extent the research can be reproduced in the same way when the research is repeated (Hammersley, 1987; Van Thiel, 2014) and validity shows how appropriate and accurate the research tools, methods and data are to answer the research questions (Leung, 2015).

There are two types of validity, internal and external validity. Internal validity asks the question if the researcher has measured the effect they intended to measure and external validity shows to what extent the research can be generalized and applied to other situations (Van Thiel, 2014). Because much of the analysis of qualitative research takes place in the mind of the researcher, the controllability and repeatability are much less clearly defined (Van Thiel, 2014).

To ensure validity for this research data triangulation is applied. By using multiple sources and methods triangulation can be achieved to increase the validity of the research. When coding, the choices made during analysis will be written down in a memo to further increase the validity and reliability of the research. By acknowledging any biases of the researcher beforehand reliability of the research is also increased.

Furthermore, by clearly defining operational definitions such as the legal forms, and sustainability practices there is less room for ambiguity or in subjectivity on what precisely is being researched if the research were to be done in a different setting. This will increase the consistency of following research and thus increase the reliability of this research. Clear definitions also increase the validity as researchers are more confident in what they want to research and reduces the risk of misinterpretation.

Transparency of reporting also increases the validity and reliability of the research. Transparency of how the data was collected, analysed, and processed will help other researchers replicate the research as precisely as possible which increases reliability of the research. Validity is guaranteed through transparency by allowing readers to evaluate if the research methodology and design were appropriate for answering the research questions. By giving readers enough details about the study sample, methodology, and context to evaluate how well the findings apply to their own research, external validity is ensured. By pointing out limitations and assumptions, critical assessment of the reliability of conclusions is encouraged, and positive dialogue within the scientific community is fostered.

4. Results

To answer the main research question, this chapter will answer the sub-questions 1 through 4 before coming to a conclusion. As stated in the methods, sub questions one and two were answered through existing literature, whereas sub-questions three and four were answered through empirical evidence.

4.1. Results sub-question 1

The first sub-question proposed is “What is the criteria for an environmentally sustainable hallmark event?” this will be answered below through the conducted literature review with reference to the conducted interviews.

Companies and events have to meet certain criteria in order to be able to have the label of an environmentally sustainable event, otherwise greenwashing, which is defined by Torelli et al. (2020) as “a variety of different misleading communications that aim to form overly positive beliefs among stakeholders about a company's environmental practice”, can take place in all types of events. Research conducted by Cavallin Toscani et al. (2024), who made an overview of academic work of environmental sustainability at events, will be used in helping answer this question. The seven ‘green practices’ found by Cavallin Toscani et al. (2024) that were most researched on by other researchers were carbon offsetting, water management, energy management, transport management, waste management & circular economy, green communication, green procurement, and ecological conservation.

It does not mean that without having implemented all these criteria that an event is not

sustainable. This is because some events are not situated in ecologically sensitive areas and do not need to consider ecological conservation. Next to that, carbon offsetting is a last means course of action and should only be considered when all other green practices have been implemented efficiently and further reductions of emissions are not possible (Hyams & Fawcett, 2013), for events it is difficult to fully offset all emissions made as most emissions are made by event visitors, whose decisions an event organiser has little influence on. As was found by Collins & Potoglou, (2019) and Dolf & Teehan, (2015), and confirmed by interviews conducted (Appendix A & B), transportation is the largest emitter of greenhouse gasses for events. Therefore, sustainable transportation management should be one of the criteria present for an event to be considered sustainable. Next to that, substantial amounts of waste is produced by all visitors, as well as a large amount of energy is needed to power all generators during peak hours, which is why these criteria are also necessary for an event to take into account. Sustainable water management will count for events that use vast amounts of water during their event, and as it is a finite resource sustainable use of water resources is necessary. This means that events, where possible, should reduce the usage of water. Finally, green communication and procurement should be part of the sustainability policy of events, because they are often straightforward steps to take with little costs and considerably large impacts (Tölkes & Butzmann, 2018). Interviewees were often already aware of which green practices they could take, the main ones being transportation, waste collection and recycling, clean energy use, green communication, and environmental awareness. Water management was not mentioned in both cases and green procurement was not mentioned specifically but was often part of their overall sustainability strategy (Appendix A & Appendix B).

4.2. Results sub-question 2

Sub-question 2 is *“How do the organisational characteristics influence the environmental sustainability strategies of hallmark events?”* the organisational characteristics of private limited companies and foundations will be analysed here through existing scientific literature and conducted interviews, starting with private limited companies.

4.2.1. Private Limited Companies

Companies are being pressured by its stakeholders, either customers or other companies to work towards sustainable management. This is because environmental awareness is becoming more relevant and environmental degradation is increasing the costs of production (Gadenne et al., 2012). Expertise and resources available within a company tend to also influence the environmental strategy of companies because more expertise on environmental decisions available as well as a higher availability of resources lower the uncertainty related to environmental decisions (Gadenne et al., 2012). The research done by Kassinis & Vafeas (2006) further explained the relationship between a company and its stakeholders and how they influence environmental decision making. Environmental groups or organisations can influence companies by increasing or lowering the trust of companies, depending on their environmental practices. By lowering the trust of company’s clients are less likely to purchase goods or services

from them. Through resource dependence environmental sustainability strategies of companies can also be influenced by external parties (Asni & Dianawati, 2024; Issa et al., 2022; Mehedi & Jalaludin, 2020; Pinheiro et al., 2023). The board of a company plays a key role in this relationship as they can reduce their dependencies on decrease the uncertainty of obtaining the resources needed (Asni & Dianawati, 2024; Issa et al., 2022; Pinheiro et al., 2023). They can do so through their expertise, connections with other organisations, board size, knowledge, frequency of meetings and implementation of sustainability committee. Boards with these characteristics are more likely to effectively implement sustainability strategies to reduce their uncertainty of obtaining vital resources from external parties.

Next, regulatory stakeholders can influence companies through their laws and regulations and are often governmental institutions. Through which policies governmental institutions influence companies is described in 4.2.3. Lastly, factors such as uncertainty, complexity and munificence also influence the environmental strategies according to Aragón-Correa & Sharma (2003).

4.2.2. *Foundations*

What influences foundations' environmental decision making was researched by Graddy & Morgan, (2006); Schuyt et al., (2007); Verschuere & De Corte, (2014). Foundations' decision-making processes are often influenced by their main sponsors. Large external partners could affect the missions and strategy of a foundation through their funding, as it could be a requirement to receive the funding. Newly founded foundations are more likely to alter their decision-making process in order to comply with the sponsors demands as they need the resources given by the large sponsors (Graddy & Morgan, 2006). Lastly, in the Netherlands non-profit organisations were found to be highly dependent on government fundings, which was deemed as a problem as this dependency would influence the strategy of the foundation to fit within the government plans, not allowing for their own autonomy (Schuyt et al., 2007).

4.2.3. *Laws and regulations*

All event organisers have to abide by the laws and regulations, regardless of the event organizer being a foundation or private limited company. Firstly, event organisers must apply for an event permit, this can be obtained from the municipality in which the event takes place. Which plans need to be submitted to obtain this event permit differs per municipality in the Netherlands and often there are a set of standard required plans that need to be submitted to receive the permit and they do not differ much per municipality. An overview of the most common plans required is given below and is based on an analysis of multiple municipalities' event policies (Amsterdam, Zandvoort, Rotterdam, Eindhoven, Tilburg) (Gemeente Amsterdam, 2024; Gemeente Eindhoven, n.d.; Gemeente Rotterdam, n.d.; Gemeente Tilburg n.d.; Gemeente Utrecht, n.d.; Gemeente Zandvoort, n.d.).

- Roadmap of event (date and times of event, construction and deconstruction, program, inflow, and outflow visitors)
- Map of event (emergency exits, medical teams, construction)
- Safety plan
- Mobility plan (traffic controllers, roadblocks, accessibility visitors, parking)
- Alcohol permit
- Noise/sound plan

These are required in almost all of the municipalities but do not affect the environmental sustainability of an event.

In recent years sustainability plans have also started to become a requirement in some municipalities and influence event organisers' sustainable policies through this. Examples of municipalities that do require a sustainability plan include the municipality of Amsterdam and Tilburg (Gemeente Amsterdam, 2024; Toolbox Gemeente Tilburg, n.d.). They focus on several themes:

- Energy (reduction of energy usage, more green electricity)
- Water (enough free water, save water where possible)
- Waste management (waste separation, reduction waste, PET cups, hard cups)
- Mobility (% visitors public transport or sustainable, what transportation options are available)
- Food and catering (vegetarian, biological, local)
- Communicating on sustainability
- Nature protection

If these sustainability plans are required for every event in the future, organisations will have little choice but to adapt and comply and the environmental sustainability strategies of hallmark events will be determined by the requirements for event permits, unless they choose to do more than the minimum.

4.3. Results sub-question 3

Case studies on the Dutch GP B.V. and Stichting Zevenheuvelenloop will be conducted to answer the sub-question *“How are the environmental sustainability strategies of the Zandvoort Grand Prix and Zevenheuvelenloop influenced by their organisational characteristics?”* The case study of the Dutch GP B.V. will be presented first.

4.3.1. Dutch GP B.V.

Environmental sustainability criteria

The environmentally sustainable practices that are implemented by the Dutch GP will be analysed first to see if they meet the criteria to be an environmentally sustainable hallmark event, this will be done through a checklist of the criteria found in sub-question one, namely, carbon offsetting,

water management, energy management, transport management, waste management & circular economy, green communication, green procurement, and ecological conservation.

Carbon offsetting

No mention of carbon offsetting is made by the Dutch GP. However, the Dutch GP is a race promoter for the Formula One Management (FOM), the overseeing company of all formula one races. The FOM encourages all race promoters to work towards their goal of achieving a net-zero carbon footprint by 2030. In their plan they intend on offsetting any unavoidable emissions, including those produced during the events of race promoters, such as that of the Dutch GP (FIA Environment and Sustainability Commission, 2019). In this way carbon offsetting is being considered, but not directly through the Dutch GP itself.

Water Management

Sustainable water management refers to how the water is used, where contamination of water resources is minimized as much as possible and water is used efficiently, with little waste (Intason et al., 2021).

Dutch GP has free water tap points on its terrain to lower the use of plastic cups but has no further mention of sustainable water management (DutchGP, n.d.-b).

Energy Management

The Dutch GP has an ambition to generate energy in a sustainable way and have started to do so in 2021.

The first step taken is the creation of a smart grid. Generators that are needed during peak times during the event are combined. By combining generators less generators are needed overall, thus decreasing the amount of fuel otherwise needed for new generators and less transportation for moving around the generators. Moreover, the fuel used for the generators is hydrotreated vegetable oil (HVO100), which emits 82,5% less emissions compared to traditional fuels, this is done in collaboration with their sponsor Shell (Appendix A).

An expansion of the fixed power grid allowed for the use of green electricity through the power grid, this decreased the impact of the electricity use by 94,5%. They also have solar panels for their electricity consumption, but these do not suffice during the race weekend, which is why the generators are needed then (Appendix A).

According to Fleming et al. (2014) this does count as sustainable energy management as sustainable fuels are used and green energy is the primary energy source.

Transport management

Sustainable mobility of visitors towards the circuit is stimulated, this is done by not providing any parking spaces for the car in the municipality of Zandvoort and Bloemendaal aan Zee, they further deny access to the area by car for everyone expect people with a special permit (DutchGP, n.d.-e). People that fall under the category of receiving a special permit are people that live in the area,

emergency services, and hospitality. When a ticket is purchased advice is given on which way to best travel to the circuit, mostly via the train or bike.

Next, suppliers of the event are asked to decrease the number of times they have to travel, and, where possible use electric or hydro powered vehicles. They claim that 98% of the visitors come to the circuit in a sustainable way through their mobility plans (Appendix A).

Cycling

Cycling is promoted and the option to cycle on your own bike or rent a bike or e-bike is given through their sponsorship with PON (Appendix A). Furthermore, additional parking spaces for bikes are set up to accommodate the extra influx of bikes during the event. These parking spaces can be reserved beforehand to ensure a parking spot.

Public transport

By taking the bus visitors are dropped off right at the entrance of the circuit and a special Dutch day ticket is provided for twelve euro per person to travel around the area of Amstelland-Meerlanden and Haarlem-IJmond by bus. Additional busses are also organised with busses driving ten to twelve times per hour towards the circuit to decrease waiting times and crowded busses (DutchGP, n.d.-c). Next to that is the train, which is seen as the key to success of sustainable mobility (Mobiliteitsplan). The train station is located a 15-minute walk away from the circuit, with directional signs along the path and timetables for the trains have been changed to accompany the vast number of visitors. The NS has twelve trains per hour going to the circuit, with up to 1.250 passengers per train from Friday till Sunday (DutchGP, 2020).

The option of taking the shuttlebus from various starting locations in the Netherlands is also provided as part of their mobility plan, tickets can be reserved when purchasing the tickets for the race, or afterwards and it is even possible to organise an own shuttle service if the group of people is large enough (DutchGP, 2020).

The last mobility option that is given is shared transport. Shared transport in the form of scooters or bikes is promoted and specially allocated parking spots are made to park close to the circuit. Furthermore, they have an agreement where users can get a 10% discount on the journey when using a special discount code (DutchGP, n.d.-d).

Based on the work done by Collins & Potoglou (2019) the Dutch GP does take transport management into account sufficiently as they encourage sustainable transportation modes which will reduce greenhouse gas emissions, congestion, which makes the event more sustainable.

Waste management & circular economy

Dutch GP initiated a token system where tokens are bought which can be used to buy a plastic cup and can be returned to specially dedicated drop-off points to get the purchase price of the token back (DutchGP, n.d.-b). This resulted in 80% of the cups being brought back. Furthermore, in co-operation with the waste collection company all waste is separated and recycled after the event,

this is communicated with the visitors to not give the impression that waste is not being recycled. Additionally, the choice is made to donate the food that is left at the end of the event and still in packaging to the food bank to ensure as little as possible is thrown away (Appendix A). Lastly, during the three days special 'cleanteams' are walking around in the area to clean up any waste left behind by people and help people remember to throw away their litter into the garbage bins.

As an innovative project they have reused the pavilion of the Floriade, another event in the Netherlands, and turned it into the 'Champions lounge' at the Dutch GP, saving materials and production costs in the process (Appendix A).

Green communication

When purchasing a ticket to the event, attendees get recommended an optimal route to take from their home address (DutchGP, n.d.-e). Although it was said that this is not only done from a sustainability perspective, but also from an economic perspective, taking the train, bus, and bike is often part of the advice given. During the interview (Appendix A) it is said that recommending the most economically friendly option, instead of the most environmentally friendly option, is a big motivator for most which is why it is chosen to highlight the economic benefits. Next to that, as was mentioned previously, during the event special crew that remind people to clean up their litter walk around the event location which is part of the green communication of the event. Everyone that works at the Dutch GP is asked to come to the circuit in a sustainable way, which they often do as it is also the fastest way to get to the circuit (Appendix A).

Lastly, formula one teams that participate are also asked to come to the circuit via electric cars and are starting to do so (DutchGP, n.d.-e). Teams' motorhomes are already being transported more sustainably across Europe via biofuelled trucks from DHL, this was done in agreement with Formula One Management (FIA Environment and Sustainability Commission, 2019).

Green procurement

Green procurement is when the environmental impact of goods and services is more important to a company than the costs of the goods and services, even though they are often higher. The Dutch GP has made the choice to use HVO100 fuel on large scale for powering their generators and coaches in collaboration with Shell. This was a conscious decision to lower their environmental impact, despite having higher costs associated with it (Appendix A). They also lengthen the life cycle of their waste products such as the posters and banner which were redesigned to goodie-bags for employees in the first year, and the next year into other products. Shirts are donated to clothes collection institutions which send them to less fortunate countries (Appendix A). If they were thrown away and not reused costs would be saved on the production costs.

Ecological conservation

Because the circuit is located in the dunes and near the Natura 2000 area of Kennemerland-Zuid ecological conservation should be considered as the formula one cars and the transportation of visitors to the event emit greenhouse gasses which are harmful to the environment. The Dutch GP

is aware of this and does take this into account. When the first steps were taken to welcome the Grand Prix to Zandvoort in 2019 a QuickScan on flora and fauna of the area was conducted to see if there were any protected plants or animals in the area (Econsultancy, 2019). The QuickScan found that there were two protected animals in the nearby area. The plan recommended precautions to avoid harm to the endangered animals, such as ecologists being present during the build-up phase and dedicated resting areas are allocated which is restricted for construction to take place. Besides that, during the mating season work in the area is suspended to not harm any animals.

Lastly, because the circuit is located in a nature sensitive area no noises of motors are allowed after 19:00 (Circuit Zandvoort, n.d.-a), in doing so taking into account the noise pollution made by the race.

The findings show that the Dutch GP does take sufficient environmental sustainability measures, but could focus more on their carbon offsetting program, or linking it to the program of the FOM. Next to that, little attention is paid to sustainable water management.

Influential factors driving sustainability Dutch GP

The Dutch GP first and foremost must abide to the laws and regulations from the government bodies, just like any other company. In the case of the Dutch GP these are made by the municipality of Zandvoort and the province of Noord-Holland. This has been found to be a driver for environmental policies, but the interview showed that it was not the main driver. They claim to take an extra step, beyond what the laws and regulations ask them to do (Appendix A).

The Dutch GP claims that they implement environmental policies because they want to stand out amongst the other racetracks on the Formula One calendar (Appendix A). Currently the Dutch GP has a contract with the Formula One Management (FOM) that will see the Formula One race take place in Zandvoort till 2025 (FIA, 2022), for which they pay approximately 32 million dollar annually to host the event (Rencken & Janse, 2022). Unlike the Dutch GP, other race promoters are often funded by their national governments, which pay much more for the contract of having the race in their country, some examples being Saudi Arabia (\$55 million), China (\$50 million), and Qatar (\$55 million) (Rencken & Janse, 2022). Because the Dutch GP does not have the same amount of funds as these race promoters have, they aim to stand out by being more sustainable than other race promoters in hopes to still entice the FOM to pick the Zandvoort GP as a circuit to race after the contract expires in 2025. When working together with other race promoters the Dutch GP has given advice on sustainability practices to be implemented at other race locations and in doing so the Dutch GP wants to be an example for the rest (Appendix A).

The Dutch GP was founded in 2019 and the Dutch GP B.V. has one registered employee in the Chamber of Commerce (Drimble, n.d.-a; Oozo.nl, n.d.). However, the Dutch GP B.V. is formed by three companies combined together, consisting of sport marketing bureaus SportVibes (SportVibes United B.V.) and TIG Sports (TIG Sports B.V.), and the Circuit of Zandvoort (Exploitatie Circuit Park Zandvoort B.V.) and are inseparable from the Dutch GP B.V. with some people working for both companies with the same role (Circuit Zandvoort, n.d.-b). These in turn have more

employees, with around thirty-five working for SportVibes (SportVibes, n.d.), forty for TIG Sports (TIG Sports, n.d.) and nineteen for Circuit of Zandvoort (Drimble, n.d.-b). Because they work together, they influence the Dutch GP through their decision making, core values and other organisational characteristics. Examples of some core values of the companies involved are: entrepreneurial, innovative, authentic, flexible and positive. None of the involved companies have a separate sustainability policy published on their websites, but the interviewee from the Dutch GP was a sustainability manager who worked for SportVibes. Circuit of Zandvoort is the oldest organisation out of the three involved organisation and was founded in 1993 (Drimble, n.d.-b), with TIG sports being founded in 2008, and SportVibes in 1998 (Graydoncreditsafe, n.d.-b, n.d.-a).

Furthermore, what was found was that sustainability meant more than just environmental sustainability for the Dutch GP. When asked what sustainability measures were taken six different aspects were mentioned: mobility, nature, energy, social, economic sustainability, and new initiatives (Appendix A). The first three are all related to environmental sustainability and have been explained in the above section, with new initiatives also partly being part of environmental sustainability. But social and economic sustainability are other forms of sustainability. Social sustainability was reached by giving the opportunity for everyone to visit the Grand Prix. By providing places accessible for wheelchairs on the camping and at the circuit fewer mobile people can also attend the races. Next to that, ticket prices on Friday are halved and are then 17,50 euro, giving the chance for more people to attend the first training day. And lastly, together with the LINDA. foundation, fifty families are given the opportunity to visit the free training on Friday for free (Appendix A). Economic sustainability is a core part of their business model as they try to make a profit, much like every other organisation. Part of their economic sustainability model is investing into the local economy. Firstly, when looking for suppliers the Dutch GP will buy locally, assuming the quality is the same as elsewhere. If a supplier cannot be found locally, a regional supplier will be found, where a global supplier is lastly looked at when no others are available. This is both good for environmental sustainability, because less travel is required, resulting in fewer emissions, and economic sustainability as more jobs are created locally (Appendix A).

Certifications & Accreditations

What is remarkable is that whilst the Dutch GP claims to be a frontrunner in sustainable practices in comparison to other race organisers (Appendix A), which is the case when it comes to sustainable mobility, they have no environmental accreditations or certifications to show, besides having the title of most sustainable F1 race promoter, awarded by the FIA in 2023.

Next to that, an independent organisation credited the circuit of Zandvoort with a medium – low SCI (Sustainable Circuits Index) score, which translates to a score of 1 out of five in their certification system (Enovation, 2022). This score is based on twenty-one sustainability performance criteria which include awarded certifications, accreditations, their environmental and social performance, and economic impact. As of 2023, 21 certifications, such as different ISO

certifications, had been granted to other circuits around the world, and eight circuits worldwide have received FIA Environmental Accreditation (Enovation, 2022).

There are various ISO certifications which an event can apply for that have set international standards covering all kinds of aspects, one being sustainability. The non-governmental organisation ISO relies on external certifying bodies to issue certifications instead than the ISO itself. The most relevant ISO certifications related to environmental sustainability for the Dutch GP are ISO 14001 (environmental management system), and ISO 20121 (sustainable event management). To be granted the certification the event does not have to have environmental practices already in place, but it needs a commitment that they are planning to do so in the future and that continuous improvement of their sustainability policy is strived after (Heires, 2008)

Then, there are also accreditations that prove that companies meet certain standards set. The FIA has an accreditations program to help measure and enhance environmental performance of motor sport and mobility stakeholders that are related to the FIA around the world. It has three stars which can be given to an organisation, ranking from basic (one star) to good (two stars), and lastly, to best practise (three stars) (FIA, 2020).

It would make sense for a company like the Dutch GP, which asserts to take environmental action, to also have documentation such as the ISO 20121 or be part of the Environmental Accreditation program of the FIA, which other race promoters are a part of and do have but, as of yet, they do not have or are not a part of.

When this was discovered, the Dutch GP was questioned about whether or not such certifications or accreditations would be sought after in the future and the Dutch GP has indicated in an email correspondence that they have an audit scheduled for August (2024) in order to obtain the FIA three-star accreditation (Dutch GP, personal communication, June 12, 2024). This demonstrates a desire to become more sustainable, and an achievement of the three stars would confirm this.

4.3.2. *Stichting Zevenheuvelenloop*

Environmental sustainability criteria

Carbon offsetting

No mention has been made of offsetting any emissions made.

Water management

No mention was made of water conservation.

Energy management

For a running competition during the day not much energy is used, which is why it was not a main priority of the foundation. However, during the interview (Appendix B) it was said the electric generators used run on green energy and local residents' solar panels have been partly financed by the foundation in return for the use of the electricity during the race.

Transport management

Mobility is a key factor in the Zevenheuvelenloops' sustainable strategy as transport is known to be the biggest emitter of greenhouse gasses (Appendix B).

They stimulate the use of public transport through numerous ways in their sustainability policy.

The first way they do this is by working together with the local bus company to grant participants to the event free bus tickets when showing their starting number, this can be used to travel sustainably to the nearest train station or directly to the start in the city of Nijmegen (Appendix B).

Another option is given by using an app where people can carpool with other runners to the nearest train station to reduce the number of cars that are needed (NN Zevenheuvelenloop, n.d.-b). Furthermore, they highlight the benefits of taking the train over taking the car on their website and via email to those who participate, this is done as they believe that a behavioural change is needed for sustainable transportation in the future and highlighting what the benefits are of taking public transport will help in this behavioural change (Appendix B).

For people that indicate that they do not take public transport and do not live in the region of Nijmegen, a five-euro surtax is implemented which is invested into other sustainable projects such as solar panels for schools (NN Zevenheuvelenloop, n.d.-a).

Furthermore, all transport directly related to the event such as media cars/motorbikes and clocking cars are electrified.

Lastly, to decrease travel time by public transport and increase the accessibility the start of the race was relocated to the city centre of Nijmegen, close to the bus- and train station (Appendix B).

Waste management & circular economy

By producing the medals contestants receive after the race from more sustainable materials such as potato starch and waste wood instead of precious metals valuable resources are preserved and the circularity of the medals are increased. Furthermore, when enrolling for the race runners are presented with the option to receive a medal or not. If they choose not to, they lower the cost of their registration fee whilst at the meantime saving resources that are used in the production of the medals (NN Zevenheuvelenloop, n.d.-a).

The event does not use any disposable cups, but contestants are given rPET cups at drinks station, these are cups made from recycled plastic and are also being recycled to new cups afterwards.

They are also involved in trying new ways to lower the waste of cups by implementing biodegradable cups made from seaweed, however as to date these have not been approved by the government and are not yet produced on large scale.

Any clothes left behind by runners after the run are collected and given to another foundation that

gives them away to less fortunate countries and people (NN Zevenheuvelenloop, n.d.-a). To add to that, when enrolling for the race, runners must agree to not throw away their litter onto the track or into the surrounding environment. If they do so they risk the chance of getting disqualified for the race. This measure has resulted in just one piece of plastic being found around the course in the last edition of the race, according to the foundation (Appendix B). In their catering they use local and seasonal products to save on the emissions made by the transportation of the products and they only produce vegetarian and vegan food for the participants, which cost less emissions to be produced, this was found to be a smooth transition (Appendix B).

Green communication

As mentioned, taking public transport to the run is promoted by the foundation via the website and when purchasing the starting ticket. When purchasing a ticket, the most sustainable way to come to the event is advertised and advised (NN Zevenheuvelenloop, n.d.-b). The website further shows what the prices are for train tickets compared to the price of parking tickets in Nijmegen for cars for an entire day, with the intention of inducing behavioural change.

Green procurement

The best example of green procurement taken by the Zevenheuvelenloop is the medals which are made from waste wood or potato starch. Furthermore, they purchase their goods at companies that have environmental principles in their management, examples being the shirt and number providers and initiative that introduced the seaweed balls for water consumption. As sustainability is important for them, green procurement was also considered an important aspect (Appendix B).

Ecological conservation

The race is not located in a nature sensitive area, so this does not count for the Zevenheuvelenloop. Nonetheless, precautions are taken to lower the environmental impact on the surrounding areas by reducing any litter thrown into the surrounding area. They do so by disqualifying any runners that are seen throwing away waste onto the track or its surroundings.

The Zevenheuvelenloop does consider most of the seven environmental sustainability criteria. Carbon offsetting and water management were not explicitly mentioned during the interview and no information was found on the website or other documents. As was indicated during the interview, mobility is their primary concern when it comes to sustainability. The reason for this was that it contributed to most of their emissions, corroborating the findings from the literature.

Influential factors driving sustainability Zevenheuvelenloop

The Zevenheuvelenloop is dependent on the financial resources received from their sponsors as these resources are needed for their day-to-day functioning of the foundation and to be able to finance the runs they organize. The province of Gelderland, on the other hand, is reliant on the Zevenheuvelenloop to reach a larger audience and to show involvement in the sports

community. However, the case of the Zevenheuvelenloop does not indicate a relationship between the creation of climate policies and the resource dependence theory, unlike what was hypothesised. The Zevenheuvelenloop makes its own decisions and is not influenced by its main sponsors to undergo climate actions in exchange for financial resources. A primary reason for this is that sustainability has always been a part of the Zevenheuvelenloop since its creation in 1984. The interview with the Zevenheuvelenloop showed this with examples as *“Henk Stevens, the very first director and president of the foundation already thought that in 1984 we had to change something”*, *“What I find much more important is that people know and understand that it's interwoven in our culture”*, and, *“we don't need a sustainability manager anymore. There's six of them here”* (Appendix B). Therefore, sustainability was inherently connected to the Zevenheuvelenloop, and the foundation has always strived to be an example to other organisations when it comes to their sustainability approach.

The foundation is now also part of a lead group of event organisers that strive to improve their sustainability in the province of Gelderland. These are appointed and guided by the province of Gelderland themselves and are used as examples for other events. They are aware of their position as being one of the most sustainable events and believe that it is also a reason for sponsors to sponsor them, as stated during the interview when asked if sustainability was a reason for sponsorships *“But, yes, the fact that we organize sustainably makes them choose us.”*

As indicated by the Zevenheuvelenloop, the partnership with its sponsors is positive as sponsors can promote themselves at an event with a positive imago in return for a financial compensation (Appendix B). The sponsors were approached by the Zevenheuvelenloop themselves instead of the other way around and a reason given for this was that they were frontrunners in sustainability.

An interview with one of the main sponsors of the Zevenheuvelenloop, the province of Gelderland, was held to determine what the relationship looks like between the province and the events it sponsors to determine if resource dependency is applicable. For this, Appendix C is referred to. The province firstly has a distinction between sponsorships and subsidy, in the case of subsidies, events are given a sum of cash, and nothing is asked of them in return. Whereas sponsorships already show a sign of resource dependency for events. How much events are given is based on market conform and sponsored events must provide something in return and if they do not deliver the province can decide not to pay. What the province wants out of this relationship is wider attention towards the larger audience, via promoting itself through the event (Appendix C). Events therefore have to be a widely known event with large number of visitors and a big media impact. Resource dependence can clearly be seen here as the province can decide not to attribute funds towards the event if it does not comply by their criteria. But sustainability is not part of their criteria and events therefore do not require to take sustainability measures in account when planning their event. This shows that although resource dependence of an event towards its sponsors does have an influence on the strategic decision-making process of event, it does not mean that it has to influence the environmental sustainability policy of events. That is the case in the province of Gelderland.

Furthermore, the province had inquired internally if sustainability could be a prerequisite to take

into account before being granted a sponsorship, but this has not been done. The reason given for not requiring sustainability is that it was said that sustainability is difficult to judge based on a scoresheet or set list of criteria, as stated in the interview:

“So, how are you going to measure that? And is that the same for each event? That role or that, that impact is not yet fully known to us. Because yes, a participant event is quite different from a visitor event. An indoor event versus an outdoor event. What control do organisers also have over the impact they make within their organisational model? For example, if you rent a stadium, you may not be able to do much about that accommodation because it is located with someone else. So, yes. We have actually said that we do not have that in our implementation and criteria framework.”

Sustainability is however still promoted with the events that they sponsor and subsidize during their yearly meeting with all of them present. It is asked what initiatives events take and how they can learn from each other in terms of sustainability, the main goal here is to see how the sustainability measures taken can be promoted better towards its visitors and the larger crowd but is still not required. It was said that events are very willing to talk about sustainability and implement measures as long as it fits within their business model, so without any definite requirements events are already willing to take action (Appendix C).

Lastly, what was confirmed during the interview is that the Zevenheuvelenloop is not an ordinary event in terms of sustainability and they are frontrunners in this aspect with high internal motivation to be sustainable, coming from their organisational characteristics.

To sum up the main findings on how the environmental strategies of the Zevenheuvelenloop are influenced by organisational characteristics are that the main influences are not from their external partners and resource dependence, which provide financial resources in return for promotion, but are primarily their organisational aspects such as their mission and vision. The foundation has focussed on sustainability from the start, as part of their mission, and sustainability is seen as the norm for them, and they are not influenced in taking environmental decisions by the providers of resources.

Environmental sustainability is also said not to be a main criterion for events to be sponsored in the interview with the province of Gelderland, a sponsor of many events. The focus is on communication and getting name recognition in return for the sponsorship. Here resource dependence is visible as events have to comply to certain criteria made by the province but does not count for environmental sustainability measures.

4.3.3. General findings

What applies for both cases is that both organisers are aware of the environmental impact of their event and aim to reduce their environmental impact through their policies and actions taken. Next, they have the same understanding of which environmental measures they can take, which are sustainable mobility/transportation, waste management & recycling, energy management, green communication, green procurement, and nature protection. Carbon offsetting was not mentioned in both cases and not much attention was paid to sustainable water management.

What was notable is that mobility was known to have the largest impact on the environment by both the Dutch GP and Zevenheuvelenloop, a citation from the interview with the Zevenheuvelenloop shows this; *“Well, at least what we do in the area of mobility, as it is the most polluting factor in an event.”* This is then also the main focus of their sustainability policies and they promote the use of public transport through their communication. Secondly, they also recognize that mobility is not something they control as it relates to the choices of their visitors. They are aware that communicating that traveling by public transport is not just good for the environment, but focussing on other benefits of taking the public transport, such as saving money and time, is a more effective way of changing the behaviour of their visitors. The respondent of the Zevenheuvelenloop stated the following on their sustainable mobility policy *“Well, as far as mobility is concerned, what we're doing is, ultimately, mobility, is psychology and behavioural change. And we are actually always trying to do that in an inspiring way and in a kind of personal appeal to people”* (Appendix B).

Both events then prioritised waste management & recycling practices most. The analysis of the interviews identified this 23 times and ranges from recycling practices that have been implemented; *“If we do not re-use it we recycle it. For example, we have recycled banners and made bags from them for our volunteers”* (Appendix A), or practices that are planned on being implemented; *“But so far they are still rejected. So that's where we're going. It is a very small waste product of sugar cane production. It's all a kind of wooden pulp.”* (Appendix B).

Then, green communication and energy management were both mentioned 12 times across both of the interviews. Green communication practices were often found to be combined with another practices such as transport management because the events would communicate sustainable transportation options towards its visitors, an example from Appendix B is given here: *“and we are actually always trying to do that in an inspiring way and in a kind of personal appeal to people, that they are going to travel by public transport.”* Although this example shows more of a green communication tool, it does communicate about sustainable mobility, therefore they are combined here. Then, energy management practices were linked to green energy via solar panels or receiving renewable energy from the power grid. Both event organisers have had solar panels placed on their roofs for renewable energy but know that their events' energy demand can not be sustained by just this energy and therefore generators are needed. The Dutch GP, in collaboration with their partner Shell, made the decision to use less polluting fossil fuels for these generators, whereas the Zevenheuvelenloop uses electricity powered generators.

To conclude the analysis of the events, the green procurement practices will be analysed. Green procurement was not mentioned specifically during the interviews, but could be derived from the interviews and the best example is from the Zevenheuvelenloop where plastic bottles could be used if desired, but they are trying to make bottles with a seaweed coating or wholly out of seaweed, but these are either not permitted by law yet or are not being able to be produced on large scale.

4.4. Results sub-question 4

The fourth sub-question *“What policy measures can be implemented in future hallmark events to ensure environmental sustainability?”* will be based on the interviews conducted, findings from real-world practices, and is supported by scientific literature.

To ensure environmental sustainability in future hallmark events, policy changes in the event management need to be made. What was found firstly is that event organisers did know what green practices they could implement at their festival, showing that awareness of sustainability is present with event organisers. As both interviews showed mobility is the main emitter of greenhouse gasses and is a result of the visitors attending the event. Therefore, policy measures can be made by event organisers to increase the use of sustainable transport by visitors. The case studies on the Dutch GP and Zevenhevelenloop showed some measures that can be implemented at other events and are listed below:

- Offer a discount on public transport, in collaboration with the local/regional public transport company (Zevenhevelenloop)
- Create a car-free area near event location, in collaboration with local municipality and province (Dutch GP)
- Send optimal route for coming by public transport when purchasing tickets (Dutch GP & Zevenhevelenloop)
- Focus on communicating costs/time saved when taking public transport
- Enable and promote cycling by putting sufficient bicycle stands and placing extra (rentable) bicycles at points where people leave the train. Can be done in collaboration with NS or another company that provided bikes (Dutch GP).
- Use apps such as Slinger to promote the use of carpooling to events (Zevenhevelenloop).
- Add own transport surtax and use tax for other sustainability measures (Zevenhevelenloop)
- Add sustainable mobility in mobility plan (to be implemented by governing body who provide permit)
- Create hop-on point across various cities for shuttle bus transport (Dutch GP)
- Longer/more trains towards event location in collaboration with NS (Dutch GP).

What is important here is that measures are also communicated as cost and time saving measures for visitors because sustainable mobility is seen as a behavioural change that is needed by its visitors (Appendix A; Appendix B).

For the other green practices policy measures can also be taken in future events and the successful measures taken by the Dutch GP and Zevenhevelenloop will be shown in the table below.

Table 1: Examples of green practices

Examples	Measure #1	Measure #2	Measure #3	Measure #4	Measure #5
Green practices					
Energy management	Electric generators	Sustainable fuels for generators	Smart grid	Solar panels	Isolate buildings
Waste management	Collect rubbish in combined waste containers, then separate later	Use products minimum of 3 years	Use waste products to produce materials	Leftover food to food bank	Return tokens

Green communication	Communicate most efficient transport route	Signs communicating green measures being taken	'Clean teams'		
Green procurement	Use sustainable fuels instead of normal	Try new cups (seaweed cups/bags)	Constantly look where replacement is possible		
Water management	Water tap points				
Nature preservation	No noise after 19:00	Conduct area analysis	Eliminate/disqualify litterers		
Carbon offsetting	Offset any emissions that cannot be reduced.				

Governmental bodies can also influence the sustainability of events. This can either be done by changing their legislation which the event organisers have to abide to be granted a permit to organize events. Through this, both private companies and foundations can be obliged to take sustainability in their policy. A first step that can be taken however is trying to work in collaboration with the events. The Dutch GP said that they do not need help with what sustainability practices there are, but from factors limiting their ability to become more sustainable. One limiting factor is the power grid and investing into more sustainable generators is expensive for events, even if it is an investment that will pay itself back through savings (Appendix A). A recommendation made here by the Dutch GP was to help with the initial costs of purchasing newer and more environmentally friendly generators, which can be used for several different events in the area.

Foundations that are being sponsored by the government can implement sustainability criteria that have to be met to be granted the sponsorship. The interview with the province of Gelderland has however showed that this is difficult to implement a list of criteria as there needs to be a clear definition of what sustainable is, how this is measured, and how this can be applied to all sorts of events which have different characteristics (Appendix C). This shows that there should not be a checklist for events but would require another form of assessment. A possible solution is the implementation of a (environmental) sustainability plan made by the event organiser. Like a mobility plan, a sustainability plan would require an event to show how they intend on implementing sustainable measures, or which they have already implemented. A list of measures, with its impact reduction and implementation costs and difficulty of implementation can be provided along, similar to the Actiemenu voor verduurzaming sportevenementen (Provincie Gelderland, 2024) from the province of Gelderland. What is also possible, is having a third-party certify events through renowned certification program. It would guarantee that an event is sustainable, and the certification can be shown to visitors and participants of the event. If costs are considered too high, an institutional body could provide the funding for this.

Lastly, what should be communicated well amongst event organisers are the events that are already implementing sustainable measures where possible. The Dutch GP has said that they have learned a lot from the DGTG festival in terms of sustainability and they then pass on their knowledge to other race promoters over the world (Appendix A). The Zevenheuvelenloop is also part of a frontrunners group in Gelderland and their experiences are communicated with event organisers in the province of Gelderland. This is an effortless way of communicating real-world practices towards more event organizers.

4.5. Results research question

The main research question *“How do the organisational characteristics influence the environmental sustainable strategy of the organisation of hallmark events and why?”* will be answered through the sub-questions.

The organisational characteristics of organizers of hallmark events influence the environmental sustainability strategy through multiple ways and will be described here. Two types of legal forms analysed here were the private limited company and the foundations. Organisational characteristics such as age, the mission and vision, and the people who work at the event did influence the environmental sustainability strategy of the foundation, but this same motivation was not evident from analysing the Dutch GP. The Zevenheuvelenloop was founded in 1984 and they have a team of six people in office (Appendix B). Since it started the mission has been to get people to run as sustainably as possible and organise sustainable and the founder said that events could no longer keep going like it was and they needed to become sustainable. What was also said here is that everyone who works at the Zevenheuvelenloop is a sustainability manager in themselves and this message is carried out to the visitors of the events as well as new people. Motivations found for organisations to carry out sustainability measures were classified into two categories: organisational characteristics and resource dependence.

Organisational characteristics identified by Graddy & Morgan (2006) are all influences that come from inside an organisation such as the mission, vision, age, and number of employees. Then, resource dependence can motivate organisations to implement sustainability to reduce uncertainties from stakeholders who provide vital resources.

In the case of the Zevenheuvelenloop, it was shown that their organisational characteristics mostly influenced their sustainability policies made and resource dependence is less influential. The Zevenheuvelenloop had sustainability as a priority since its foundation in 1984. In addition to that, when talking about sustainability they said, *“whatever we can do about that (sustainability), we’ll do something about it”*, and when questioned about their waste management and recycling procedure they referred to separating waste as *“so obvious”*, indicating that it is normal for them. Furthermore, they claimed that they are constantly looking for where they can be better and do different and when asked if the sustainability measures taken are the result of collaborations with their sponsors or entirely self-made, their answer was; *“no, that’s all from our motivation”* (Appendix B). The interview with the province of Gelderland (Appendix C) reinsured this claim as they said, *“they think that so many things are normal”*, and *“based on the DNA of their*

organisation” when asked about the sustainability of the Zevenheuvelenloop. They are certainly the frontrunners when it comes to sustainability, but they too are influenced by external factors to which they do not always have control over. They are not influenced by their sponsor, or on organisations providing resources to engage in sustainable activities, as this is not a requirement in order to obtain the sponsorship grant but, they have said that they are a guest in the city of Nijmegen and they feel that they need to be respectful to their environment in order to ensure that the race is still welcomed in the city by its inhabitants. This indirectly influences their choices on sustainable mobility as they do not want to have too many cars drive through the city of Nijmegen to reach their event as this will cause a nuisance to the inhabitants. Besides that, the accessibility of Nijmegen also influenced the mobility flow towards the race. Nijmegen is a poorly accessible city by car according to the Zevenheuvelenloop which is why they have made the choice to start the race near the train station, making it more accessible for attendees and promoting the use of public transport.

The case of the Dutch GP shows that resource dependence influences their sustainability more. Their main motivations for taking environmental sustainability measures were external factors, first and foremost being the Formula One Management. Their motivation to take environmental sustainability measures is driven by the fact that they must stand out in comparison to other race organisers. They aim to obtain a contract extension for after 2025, and in order to increase their chances of obtaining one they want to be one of the circuits that is a frontrunner in sustainability amongst the other circuits around the world because the Dutch GP does not have the same amount of funds available to pay the Formula One Management for their contract as other circuits do (Appendix A). This shows a level of resource dependence as the Dutch GP is dependent on the contract extension provided by the Formula One Management to be able to continue after 2025. By implementing sustainable practices, the Dutch GP is making an effort to reduce their uncertainties in obtaining a contract extension as they try to obtain a better level of sustainability in comparison to their competitors.

Next, they are motivated by the fact that they can help other promoters in becoming more sustainable and are proud of the fact that they are more sustainable than others (Appendix A). Just like with the Zevenheuvelenloop, their policy on sustainable mobility is also influenced by their location. They are located in a tough to reach area by car and leads to a dead end, with few parking spaces to accommodate all the visitors attending throughout the weekend.

Organisational characteristics were also found to motivate the Dutch GP in improving their sustainability but were deemed a lot less influential. In the interview they claimed that they are *“happy to do it”* when asked what their reason is for taking climate action (Appendix A), and that they do not do it for the show, but it must make a difference. Another motivation found is that it saves costs on the long run by switching to more sustainable fuels for their generators, which at the same time is an indication of economic sustainability. They have not shown to be influenced much by their organisational characteristics such as the age, size, mission, vision, and expertise. Through their partner SportVibes they do have a sustainability manager with expertise, but their mission and vision does not show an intention to promote sustainability.

Lastly, what sub-question 2 showed is that sustainability at events is also influenced by the event permit that is required by municipalities. There are municipalities that require a sustainability plan as part of the plans that needs to be submitted to obtain the event permit (Gemeente Amsterdam, 2024; Gemeente Tilburg, n.d.). Events located in these municipalities are heavily influenced by these permits as they must make them to obtain a permit, regardless of the legal form of the event.

5. Discussion

The two cases studied showed different influences on sustainability policies made by the organisations. Where the Dutch GP was primarily influenced by resource dependence, the Zevenhevelenloop was influenced by organisational characteristics and less by resource dependence.

The Dutch GP has shown that they are influenced by other Formula One race promoters (Appendix A) and their main motivation to take environmental decisions is to increase their odds of being granted another race contract for after 2025 from the Formula One Management. This does show a sign of resource dependence as the literature expected. The board of the Dutch GP has not found to be highly influential in the environmental decision-making process as the research by Pinheiro et al. (2023) had expected, however in implementing environmental sustainability, the expertise of an environmental manager within the Dutch GP did help with their sustainability. The research by Mehedi & Jalaludin (2020) claimed that the board is a vital resource for the company and can help reduce dependence on external partners through their connections and expertise. For the case of the Dutch GP, they will still be highly dependent on the Formula One Management, who in the end provide the race contract, but an effort is made to reduce the uncertainty of obtaining the contract through the implementation of sustainable measures. Therefore, this does not fully show how board managers and experts can reduce dependencies, as these are only obtained through one stakeholder, but rather what efforts are made in reducing the uncertainty surrounding the dependency.

The research by Kassinis & Vafeas (2006) argued that companies are influenced by two stakeholder groups: community stakeholders and regulatory stakeholders. Community stakeholders are the environmental groups that protest against companies or promote companies' environmental decisions, but the case study did not indicate a considerable influence by these groups. Regulatory stakeholders have however influenced the Dutch GP. To obtain an event permit a mobility plan was required by the municipality of Zandvoort showing how the Dutch GP planned to accommodate for the high flow of visitors to Zandvoort throughout the weekend. Here, public transport was promoted most by the Dutch GP. This motivation was not only for sustainability, but more because the circuit is difficult to reach and there are not enough parking spaces for all visitors (Appendix A). The natural business environment researched by Aragón-Correa & Sharma (2003) does influence the sustainability of the Dutch GP in a positive way. There was little environmental uncertainty present at the Dutch GP and environmental strategies are not seen as complex problems. This is because there is a munificence business environment in the Dutch GP,

with an environmental manager present at the company who has the resources and knowledge available, thus leveraging the available resources towards sustainability effectively.

The case study on the Zevenheuvelenloop also contradicted the literature review and expected outcome of the case study. Literature showed that foundations in the Netherlands adopt environmental strategies because they are dependent on the financial resources which they obtain through their primary sponsors. These sponsors in return ask for environmental measures to be implemented at the event or have a say in the strategic decision-making process of the foundation (Brandsen & Pape, 2015; Graddy & Morgan, 2006; Schuyt et al., 2007).

For the Zevenheuvelenloop this was not the case, their environmental strategies were not influenced by the sponsorship of the province of Gelderland (Appendix B & Appendix C). Their main motivation came from within their organisations' characteristics and has been part of the organisation since its foundation. This does corroborate the research done by Graddy & Morgan (2006) on the influence of the organisational characteristics of a foundation, the age, the size and their mission. Since the Zevenheuvelenloop is a foundation founded in 1984 with sustainability being a priority back then and all employees are considered sustainability managers. Then, the research done by Verschuere & De Corte (2014) found that volunteers are also likely to influence environmental strategies of foundations, but this was not found for the Zevenheuvelenloop and more research on the influence of volunteers could be done in future studies.

In connecting the research with the literature on sustainability and resource dependence these findings are similar to the research done by Abdullah et al. (2024) as it shows that governments use non-profits to deliver their policies more effectively through the relationship the non-profits have with the local community. To conclude, the findings of this research predominantly matched with that of Schnittfeld & Busch (2016) on their research of resource dependence on the supply chain. Both show that resource dependence can positively influence environmental sustainability of a company if it is required by the organisation providing the resources, but sustainability can also be influenced by the organisational characteristics, even if the organisation providing the resources does not require sustainability to be implemented in order to obtain the resources needed.

There is much to be learnt from the events studied and other event organisers can apply the measures taken at their own event, learning from the Dutch GP and Zevenheuvelenloop. Furthermore, what is important for future events is that sustainability should firstly be focused on reducing the impact of mobility as this was shown to be the primary emitter of greenhouse gasses and a reduction in this subject will be most effective. Lastly, this study shows that organisations can be influenced by their resource dependencies in applying environmental policies, as the case study of the Dutch GP shows, but they can also be driven by organisational characteristics and aided by their stakeholders providing the vital resources, which the case study of the Zevenheuvelenloop has shown.

What was not answered during this research was how much influence the volunteers had on the environmental sustainability of the events. The research done by Verschuere & De Corte (2014)

stated that volunteers can also influence environmental decision-making process as they are often driven by the mission of the event and will keep the organisation in check. Potential future research could therefore focus on the influence of these volunteers on the sustainability of an organisation by interviewing both the organisation and the volunteers. Another potential research direction for a follow-up study is focus more on the other aspects of sustainability, namely social and economic sustainability. Although elements of these subjects were present during this research the primary focus was environmental sustainability and by focusing on social and economic sustainability other influential elements could be found. Next, future research could be done on more events to make the findings more reliable and increase the validation of the results. Limitations of this study are related to the number of interviews held and events studied. Just three interviews were conducted and interviews with external parties of the event organisers could have positively contributed to the study by further explaining the relationship between the event organiser and the external parties, possibly showing how resource dependence plays a role in the environmental decision-making process. Conducting research on the Dutch GP was found to be a limitation of the study as they have little time for researchers and coming in contact with them took vast amount of effort, effort that could otherwise be used elsewhere. What went well during the research was the availability of expertise and contacts from within the province of Noord-Holland. Without prior connections with the Dutch GP and Zevenhevelenloop conducting interviews with both organisations would have been more difficult. The Dutch GP for one has multiple requests for research each year and without help from the deputy of the province of Noord-Holland explaining the importance of the research an interview would most likely not have been possible, whereas a positive relationship with the Zevenhevelenloop made it easy to plan an interview with the event organiser.

6. Conclusion

The main aim of this research was to examine how a foundation's and a company's environmental decision-making processes differ from one another, and this would be done by answering the main research question *“How do the organisational characteristics influence the environmental sustainable strategy of the organisation of hallmark events and why?”* This research has found what it had intended to do in finding the influential factors.

The Netherlands hosts many events every year, and these events have a significant environmental impact. By understanding the numerous factors influencing event organizers' environmental decision-making processes, more effective policies and recommendations can be made to increase the number of green events in the future. The main finding of this research showed that there is a difference between the two case studies conducted for this research as the foundation researched showed to be more influenced by their own organisational characteristics, such as the age of the foundation and people that work there, and are not influenced by their sponsors from which they receive financial resources. The private limited company showed to be influenced more by their resource dependence, with the resource being the obtainment of a contract for Formula One

aces after 2025. They aim at reducing their uncertainty by creating a competitive advantage towards their competitors organizing races across the world.

What is shown during this research is that event organisers can have multiple influences to implement environmental sustainability practices at their own event. Firstly, the organisations characteristics must be looked at as these can have a considerable influence on the sustainability of an organisation, with the Zevenheuvelenloop being a prime example of that. Their sustainability policies have led them become one of the frontrunners in sustainable events which has helped in attracting their financial resources necessary for survival. If no environmental strategies are made by the organisation themselves, they can be influenced to do so through resource dependence, which should be looked at next when analysing how event organisers are influenced. In the case of the Zevenheuvelenloop their resource dependence on financial resources from their sponsors did help in communicating sustainability better towards a larger audience as this was a requirement from one of their sponsors, the province of Gelderland, thus improving their environmental sustainability practices even further. For the case of the Dutch GP resource dependence was the main driver of environmental sustainability and it has positively influenced the sustainability of the Dutch GP. Without resource dependence the question would arise if the Dutch GP would have taken environmentally sustainable measures through their own motivation.

Furthermore, what is of importance for this study is that in a municipality that requires a sustainability plan to be implemented to be able to obtain the event permit this is most likely the biggest influence on sustainability policies of events, regardless of the type of organisation that organizes the event. To verify this research on events in municipalities that require a sustainability plan would need to be conducted as sustainability is becoming a more important subject in the Netherlands as we need to reach the climate goals set in the coalition agreement.

With their sizable audiences, the event industry can aid in the transition to a climate neutral state and raise participants' and visitors' awareness of environmental issues. But the question remains, should events be controlled by legislation made by governments or should companies and foundations have their own interpretation of how and when they wish to implement sustainability measures, driven by their own organisational characteristics and resource dependence, disregarding regulatory stakeholders?

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