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# THE IMPACT OF SUSTAINABLE ENGAGEMENT ON DUTCH SMES

First supervisor: Dr. X. Huang

Second supervisor: Dr. J. Heuven

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Groenewold, F.K.A.C. (Freek, Student M-BA)

S2816202

Faculty of Behavioural, Management and Social Sciences (BMS)

## Abstract

In recent years, both researchers and practitioners have increasingly turned their attention to the relationship between sustainability engagement (SE) and financial performance (FP) in small and medium-sized enterprises (SMEs). However, limited research has specifically examined the impact of SE on the financial performance of SMEs in the automotive, transport, and logistics sector in the Netherlands. This study aims to fill this gap by exploring the effects of SE on key financial indicators, such as return on assets (ROA), return on equity (ROE), and earnings before interest, taxes, depreciation, and amortization (EBITDA), while also considering its role in enhancing competitive advantage and access to capital. Using a multiple-case study approach, this research provides in-depth insights into the issue. The findings suggest that while SE often leads to a competitive advantage, it does not necessarily translate into improved financial performance. The study reveals that sustainability investments do not directly increase access to capital but indirectly result in more favourable conditions such as lower interest rates and subsidies. Although initial SE investments can present short-term financial challenges, the research highlights that these investments do not exert immediate pressure on short-term profitability. Additionally, the study underscores the differences between SMEs and larger corporations in terms of resources and capabilities. Larger firms benefit from economies of scale and dedicated sustainability departments, which provide them with a distinct advantage. In contrast, SMEs often struggle to balance short-term profitability with long-term sustainability objectives. This research contributes to the literature on sustainability and SMEs by offering insights into how sustainability investments impact financial performance. Furthermore, it provides practical recommendations for SMEs to navigate the complexities of SE implementation, ensuring financial stability and long-term growth.

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## 1. Introduction

In recent years sustainability has emerged as a compelling subject, gaining significance within the context of a company's financial performance (Yilmaz, 2021). Various studies indicate that sustainability can contribute to positive financial performance, but there remains uncertainty about this relationship, particularly among Small and Medium Enterprises (SMEs) (Yang & Jang, 2020; Cho et al., 2019). Unlike large firms, SMEs operate with different resource constraints, access to capital, and market dynamics, which may influence how sustainability initiatives affect their financial outcomes. In the literature review by Alshehhi et al. (2018) it is noted that 78% of published reports demonstrate a positive effect between corporate sustainability and financial performance. Currently, large companies in the Netherlands (those with more than 250 employees and a minimum turnover of 50 million euros) are already required to issue sustainability reports according to the Corporate Sustainability Reporting Directive (CSRD), and it is anticipated that SMEs will also be required to do so in the future (KVK, 2024).

The context of this study centres around investigating the impact of Sustainability Engagement (SE) on the financial performance of SMEs within the Dutch Automotive, Transport, and Logistics (ATL) sector. According to a study conducted by PWC (2018), SMEs contribute to 66% of the total Dutch employment and 60% of the total value added. SMEs have demonstrated for several years that they are valuable and a driving factor for growth and innovation within the economy (European Commission, 2009), making them relevant for investigation. Additionally, SMEs often face greater challenges in accessing capital and scaling sustainable practices compared to larger firms, which could lead to different financial and strategic outcomes (Beck et al., 2005). As Loucks et al. (2010) highlight, the challenges in adopting sustainability initiatives stem from economies of scale, which tend to favour larger firms. According to the United Nations (2021), the ATL sector is responsible for over 25% of the CO<sub>2</sub> emissions caused by burning fossil fuels, making it a significant sector for sustainability. Furthermore, Lun et al. (2015) describe that the environmental damage caused by this sector is a growing problem, making it a pertinent subject for investigation.

There have been various studies conducted on the relationship between sustainability engagement and financial performance; however, there is no definitive understanding of this relationship (Pedersen et al., 2018). As Yang & Jang (2020) mention, additional academic research on the relationship is required across various industries. Therefore, this study aims to fill this existing gap in the literature by investigating the relationship between SE and SME financial performance in the Dutch ATL sector. The investigation is conducted through a multiple-case study with interviews, desk research and annual data. The main research question for this study is as follows:

*"How does SE influence the financial performance of SMEs operating within the Dutch automotive, transport, and logistics sector?"*

To address the main research question, two sub-questions were formulated:

- To what extent does sustainability engagement influence competitive advantage?
- How does sustainability engagement impact SMEs' access to capital?

These sub-questions help explore the relationship between SE and both competitive positioning and financial opportunities for SMEs. This study will be guided by theories related to SE and financial performance indicators, specifically Return on Assets (ROA), Return on Equity (ROE) and Earnings Before Interest, Taxes, Depreciation, and Amortisation (EBITDA). The theoretical foundations will be drawn from existing literature on SE, corporate sustainability, and the triple bottom line theory to provide a comprehensive framework for analysing the impact of SE's sustainable practices on SME performance.

By exploring the relationship between SE and the firm performance of SMEs in the Dutch ATL sector, this study aims to fill a crucial gap in the academic literature on sustainability. Additionally, this study seeks to provide practical and valuable insights for SMEs operating in the ATL sector by uncovering the potential benefits and challenges of integrating SE practices. Companies in this sector will be better equipped to make informed decisions to enhance their financial performance while contributing to sustainable development.

Finally, this paper is structured as follows: The literature review provides an overview of the topics under investigation, describing the existing correlation between SE and FP, as well as the gap in the literature. The next section presents the methodology, detailing the approach used for case selection, measurement, data collection, and analysis, and illustrating how the data were handled responsibly. The subsequent section presents the study's results, starting with a case overview and insights from desk research, followed by the interview results and the quantitative data findings. The discussion compares the results with theoretical suggestions, leading to the identification of theoretical and practical implications, as well as the limitations and suggestions for future research. Finally, the conclusion summarizes the results and contributions of this research.

## 2. Literature Review

This section presents the literature review, which begins with an aim to provide a comprehensive understanding of the topics under investigation. Subsequently, it examines the correlation between SE and the firm financial performance, highlighting existing gaps in the literature. Finally, it outlines the hypotheses formulated for this study. The existing literature utilised in this study has been assessed for its quality based on the Academic Journal Guide index.

### 2.1 SME

This study focuses on the SME market. SME stands for "Small and Medium-sized Enterprises" and refers to firms characterised by limited size in terms of employees, turnover and assets (Honjo & Harada, 2006). This category of firms varies in size and scope, but typically SMEs are those with a small to medium number of employees and a turnover between 0.5-50 million (Brookz, 2023). The concept of SMEs is important within the economy because these firms play an important role in generating employment, stimulating innovation and promoting economic growth (Honjo & Harada, 2006). In the Netherlands, SMEs contribute to 66% of the total Dutch Employment. Furthermore, SMEs are responsible for 60% of the Dutch total value added (European Commission, 2009). Here, the total value added refers to the difference between market value of a product or service and the total sum of value of its constituents.

### 2.2 Sustainability Engagement

In this chapter, the definition of sustainability is elaborated, and the triple bottom line theory is discussed.

#### 2.2.1 Definition of Sustainability

Currently, a universally accepted definition of sustainability does not yet exist (Mansouri, 2022). The term "Sustainability" evolved from earlier studies in 1987 by the United Nations' World Commission on Environment and Development (WCED). WCED defines sustainability as 'meeting the needs of the present without impeding those of the future' (Winn, 2007). In the context of this study, the term sustainability is elaborated due to the specific focus on evaluating the value of organisations. Sustainability can be divided into 3 components via the triple bottom-line theory: social sustainability, environmental sustainability and economic sustainability (Saunila et al., 2019; J. Elkington 2018). Social sustainability refers to commitment to a community and social responsibility. For social responsibility, there are ethical rules for surviving and growing together (Anand et al. 2021). For environmental sustainability, it is important that humanity lives within the biological limits of the earth with recycling as an example. This is therefore about reducing pressure on the environment (Thompson et al. 2011). Then there is economic sustainability, which concerns the financial value of things combined with the cost of environmental impacts. This involves pursuing profitability and long-term financial stability. Previous studies write that the right balance between the 3 components must be formed to remain sustainable in the long run (Pacheco et al. 2010). Section 2.2.2 elaborates on the triple bottom line theory.

In this study, the term *Sustainability Engagement* refers to an organisation's ongoing commitment to integrating sustainability initiatives into its operations. This includes the aim of such initiatives: achieving a balance between profitability and responsible social and environmental practices (Mansouri, 2022).

### 2.2.2 Triple Bottom Line Theory

The Triple Bottom Line (TBL) theory is a well-known term within sustainability. In today's dynamic world, a company's focus is no longer solely on achieving economic profit; two other important pillars are the well-being of people and the environment (Książak & Fischbach, 2018). Elkington (1994) designed the TBL framework to measure a company's sustainability Engagement through three dimensions: people, planet, and profit. When a company scores well on all these aspects, it can be considered sustainable and creates a synergy effect (Kawewong et al., 2020). Below, the three dimensions are further elaborated.



Figure 1: The three dimensions of the triple bottom line theory K. Miller (2020).

#### *Profit*

The first aspect is profit. In the TBL theory this means more than just how much money a company makes. Historically, companies focused solely on economic growth and profitability. Nowadays entrepreneurs recognise that within the profit aspect, there are more important considerations (Książak & Fischbach, 2018). For instance, it is crucial that profits are earned ethically and fairly. Secondly, to perform well in this area companies must first take responsibility for paying creditors, employees, and loans (Uddin et al., 2008). Strategic planning is a key activity to minimize risks and reduce costs, thereby increasing profit. Uddin et al. (2008) note that once money is earned, it becomes even more important to manage it well.

#### *People*

The "people" dimension focuses on the sustainability of humanity, specifically the long-term survival of humankind. At the core of this dimension lies the emphasis on ethical standards, norms, and values (Nogueira et al., 2022). It encompasses the social aspects of humanity, which form the foundation for the outcomes of business performance (Schönborn et al., 2019). Dmytriyev et al. (2021) highlight that stakeholder theory and corporate social responsibility (CSR) demonstrate the importance of social impact alongside economic value. Employee health and well-being are important for companies, and even more so for SMEs. This is because SME employees come from the markets in which they operate, creating a multiplier effect; employees are simultaneously part of the regional society (Gołaszewska-Kaczan, 2015). Daily work-related activities become less risky and more valued when social interactions and relationships are positive (Ajmal et al., 2017). According to Porter and Kramer (2007), there is an interdependence between business and society, which companies cannot overlook if they aim to achieve good results. Indeed, companies cannot exist without their employees (Książak & Fischbach, 2018).



### *Planet*

The last dimension is the planet, which serves as an ecosystem for both business and society. The negative environmental impacts of SMEs' daily operations have a reverberating effect (Księżak & Fischbach, 2018). Therefore, it is important for companies to minimize their negative impacts in this area (Mullerat, 2010; Gupta, 2011). Księżak & Fischbach (2018) suggest that with environmental responsibility, a win-win situation can be created. By examining daily business practices, companies can identify process abnormalities, leading to reduced risk. Environmental activities improve a company's reputation, which in turn positively affects the other two pillars: profit and people (Mullerat, 2010).

### 2.3 Financial Performance

Financial performance is not only a demonstration of something but also reflects the satisfaction of the organization (Nathwani, 2004). Financial performance is a broad concept that encompasses more than just market share; it reflects the results and financial health of the company (Khan et al., 2017). It measures how well a company utilizes its resources to generate profit, manage debt, and create value for its shareholders. The key indicators of financial performance used in this study include ROA, ROE, and EBITDA. These measurement indicators are further explained in the method section.

There are various determinants that influence the financial performance of SMEs. According to Charumathi (2012) and Khan et al. (2017), company size, liquidity, leverage, growth, and volume of equity are significant determinants of financial performance, these are elaborated below. Vuković et al. (2022) state that tangibility and debt to assets are also indicators that affect the financial performance of SMEs. In the context of sustainability, costs and asset size are also indicators that influence SMEs (Nawaz, 2010; Bogan, 2012).

Larger companies often have greater access to capital, which can positively impact both Return on Assets (ROA) and Return on Equity (ROE). This access to capital allows them to invest more efficiently in profitable ventures, improving asset utilization and possibly higher returns on equity. Moreover, larger firms are more likely to achieve competitive advantages through economies of scale, innovation, or market power, which can enhance their EBITDA by increasing operational efficiency and reducing per-unit costs.

Companies with high leverage (debt) can also generate a higher ROE by effectively utilizing borrowed funds to increase returns on equity. However, if the cost of debt is higher than the returns generated on the assets, the company's ROA may decrease. This is because the financial burden of interest payments and debt servicing can outweigh the profits generated from those assets.

Sustainability initiatives, while beneficial in the long term, can have an immediate negative impact on EBITDA. High initial costs associated with implementing sustainable practices can reduce short-term operational profits. Although these investments often lead to improved financial performance over time, in the short term, they may lower EBITDA as companies absorb these upfront costs.

## 2.4 Sustainability Engagement and Financial Performances

In recent years, numerous studies have examined the relationship between sustainability engagement (SE) and financial performance (FP), yielding diverse results. According to Revelli & Viviani (2015), there are different perspectives on the SE-FP relationship. On one hand, some findings suggest that sustainability initiatives lead to increased costs (Hamilton, 1995), while on the other hand, it is argued that win-win situations can arise from improvements in SE (Porter, 1991).

Previous studies have shown that actively addressing economic, social, and environmental aspects provides competitive advantages. Additionally, it is attractive to potential investors (Ahmad et al., 2024). These sustainability initiatives create a competitive advantage as they are difficult for other companies to imitate. Moreover, sustainability initiatives foster innovative processes and enhance employee performance, ultimately contributing to a competitive advantage (Khan et al., 2023). Do and Nguyen (2020) underline that competitive advantage leads to improvements in short-term (product, financial, and production performance) and long-term (strategic performance) corporate performance. Research by Cho et al. (2019) and Jo et al. (2011) mentions that CSR performance, a corresponding topic of sustainability, has a positive impact on profitability and firm value. The Resource-Based View (RBV) further strengthens this argument by emphasizing that firms gain a sustainable competitive advantage through unique, valuable, and hard-to-imitate resources (Barney, 2004). Within the context of sustainability, firms that develop advanced green technologies, strong sustainability-oriented organizational cultures, and deep expertise in sustainable operations create resources that meet the VRIN (Valuable, Rare, Inimitable, and Non-substitutable) criteria, making them difficult for competitors to replicate (Raduan et al., 2009). By embedding sustainability into their core business processes, companies can enhance their resource efficiency and differentiation, leading to improved financial performance and long-term strategic positioning (Freeman & Dmytriyev, 2021). Overall, these studies highlight that sustainability leads to better financial performance, particularly when it is integrated as a core strategic resource that aligns with the principles of the Resource-Based View.

Sustainability engagement has proven to have a positive effect on access to capital. Sustainable companies are more likely to access sustainability financing (Ng & Rezaee, 2015). According to Bogan (2009), asset size is significantly positively related to sustainability engagement. To increase assets, capital is needed, making access to capital crucial. This creates a circular effect: companies focusing on sustainability improve their access to capital, enabling them to expand their assets. Larger assets then enhance their sustainability engagement, leading to improved access to financing (Papadogonas, 2007). This forms a self-reinforcing cycle where sustainability and access to capital mutually benefit each other. The Institutional theory further explains this relationship by emphasizing that companies operate within a framework of social norms, regulations and industry expectations that shape their behaviour (DiMaggio & Powell, 2004). As sustainability becomes an institutionalised norm, companies that are actively committed to sustainability align themselves with market and regulatory expectations, increasing their legitimacy and attractiveness to investors and financial institutions (Heras-Saizarbitoria et al., 2021). Forced pressure from governments, such as stricter environmental regulations, pushes companies towards sustainable practices, while normative pressure from investors and stakeholders creates a preference for financing sustainable companies (Ooi, 2021).

According to Epstein (2003), improved sustainability engagement can bring cost savings, although these savings are often long-term. Investments in energy efficiency, such as solar panels, can reduce energy costs. Esfahbodi et al. (2016) note that adopting sustainable supply chain management practices does not always directly lead to better financial performance. They state that sustainable purchasing is positively and significantly related to cost performance. This is mainly because the costs

of sustainability investments can be high, putting short-term profits under pressure (Bowen et al., 2001; Esfahbodi et al., 2016).

Sustainability engagement does not only offer benefits. Besides the potential for reduced profits, sustainability engagement also carries reputational risks and opportunities for greenwashing (De Silva Lokuwaduge & De Silva, 2022). Greenwashing allegations involve companies not being transparent about their sustainability engagement. Reputational damage and greenwashing can lead to direct revenue reductions and even legal issues and fines (Santos et al., 2023).

Kludacz-Alessandri and Cygańska (2021) highlighted that several research indicate that financial performance (FP) can benefit from CSR and vice versa. However, FP and CSR have different relationships according to the industry a firm operates. Some researchers suggest that this difference is influenced by how environmentally sensitive an industry is. For example, industries with production processes that harm the environment, like the energy sector, face greater pressure to implement CSR strategies (Bowen, 2000). Smaller businesses are more likely to struggle to secure enough outside funding to grow, even while they work to reach minimum efficient size. Internal finance may have a bigger effect on SMEs' growth, particularly in bad economic times (Honjo & Harada, 2006). Additionally, in this context, it is important to have an appropriate balance regarding the areas of sustainability. Gabriel de la Fuente and Pilar Velasco (2024) state that a more equal distribution among the Environmental, Social and Governance (ESG) pillars will enhance the value of companies. ESG is a framework used to quantify sustainability within measurable business activities. Hansmann et al. (2012) underscore this, noting that the three areas of sustainability can influence each other both positively and negatively. The Shared Value Theory of Porter & Kramer (2007) builds on this discussion by emphasising that companies can achieve financial success and social progress at the same time by aligning their core strategies with sustainability. Unlike traditional CSR, which is often seen as an external obligation, shared value focuses on integrating sustainability into business operations to create mutual benefits for companies and society. Li et al (2023) argue that companies that adopt shared value strategies can unlock new market opportunities while strengthening their long-term financial performance. One way companies achieve shared value is by redefining products and markets, where sustainable innovations not only meet environmental and social objectives but also provide differentiation in the competitive market. Another approach is value chain optimisation, where companies improve efficiency by adopting resource-saving technologies or sustainable practices in the supply chain (Tate & Bals, 2018). These actions can reduce operational costs and mitigate risks associated with regulatory changes or reputational damage.

#### 2.4.1 Sustainability in Automotive, Transport and Logistics

Kumar (2015) demonstrates that the market in this sector is highly competitive. Therefore, it is important for companies in this sector to act sustainably, as this enhances their competitive position. Additionally, sustainability investments can bring long-term cost savings.

Environmental issues have been growing over the years and are becoming increasingly important for enterprises worldwide. The research by Hebaz and Oulfarsi (2021) shows that a firm's environmental mission is the second largest driver for developing sustainable initiatives in the ATL sector. Internal motivation and a better public image are also drivers for implementing sustainability within SMEs (Purwandani & Michaud, 2021). In this sector, the most common sustainability initiatives are focused on energy efficiency projects (such as reducing energy consumption), circular economy practices (such as product recycling), and creating sustainable supply chain management. The latter emphasizes environmentally friendly sourcing of materials to reduce environmental impact.

Transportation is a major source of carbon emissions, with road transport being the largest contributor due to its extensive infrastructure and flexibility. However, the heavy dependence on road transportation has resulted in significant congestion, reducing the reliability of transportation. In 2032, at least 10% of the Dutch trucks and large vehicles should be electric; in 2024, this was barely 1,7% (ING, 2024).

Despite the importance of sustainable development in the ATL sector, as aforementioned, Malá et al. (2017) found that more than half of SMEs (62%) do not consistently implement it. The largest barrier is the high cost of investments. Nunes and Bennett (2010) note that large companies in the automotive industry engage with various sustainability issues. In contrast, SMEs often lack the capacity for such investments due to limited resources. Another challenge SMEs face in this sector is the difficulty in fully understanding sustainability, which complicates proper implementation. To implement sustainability effectively, a deep understanding is required, which can be both challenging and time-consuming. Additionally, there is often cultural resistance, referring to resistance to change, particularly in this sector where long-standing traditions exist, and sustainability has not been a priority (Rizos et al., 2016).

The current literature lacks information on the effect of sustainability on firm financial performance and firm value of SMEs within the Dutch Automotive, Transport & Logistics sector. Therefore, this study is important to complement the existing theoretical literature and to provide practical insights.

## 2.5 Hypotheses

The relationship between sustainability and the financial performance of SMEs (Small and Medium-sized Enterprises) in the automotive, transport, and logistics sectors is an important area of research. Previous studies have shown that sustainable business practices can positively affect both short- and long-term performance, including competitive advantage, access to capital, and cost savings through energy efficiency (Ng & Rezaee, 2015; Ahmad et al., 2024; Do & Nguyen, 2020; Epstein, 2003).

Research has demonstrated that sustainability offers various benefits to companies. Firstly, sustainability provides a competitive advantage, making companies more attractive to investors (Ahmad et al., 2024). Companies with strong sustainability Engagement generally have easier access to capital, enabling them to increase their assets. This is evidenced by Ng and Rezaee (2015) and supported by the findings of Bogan (2009). Additionally, investments in sustainability, such as energy efficiency, can yield significant long-term cost savings. Epstein (2003) and Esfahbodi et al. (2016) note that such investments, despite initial costs, can ultimately reduce operational expenses.

According to the empirical study by NH Han and DW Choi (2022), sustainability positively influences the financial performance of SMEs. However, each SME has its unique characteristics, and these factors impact each business differently (Quader et al., 2016). For this reason, the focus of this study is on a specific sector, namely the automotive, transport, and logistics sector. In this industry, sustainability is particularly important due to the high level of competition. Investments in sustainability can contribute to long-term cost savings and improve the competitive position of companies (Kumar, 2015; Hebaz & Oulfarsi, 2021). Nevertheless, the primary barrier for SMEs in adopting sustainability practices is the high cost of such investments (Malá et al., 2017; Nunes & Bennett, 2010). Based on these findings, the following hypotheses are proposed to answer the sub-questions of this study:

**H1:** Sustainability engagement can bring competitive advantage, and thus positively influence the financial performance (ROA, ROE and EBITDA) of Dutch SMEs in the automotive, transport, and logistics sectors.

**H2:** Sustainability engagement can enhance the access to capital which increases the financial performance (ROA, ROE and EBITDA) of Dutch SMEs in the automotive, transport, and logistics sectors.

However, there are also challenges and risks associated with sustainability. Investments in sustainability can entail high initial costs, affecting short-term profitability (Bowen et al., 2001; Esfahbodi et al., 2016). Moreover, companies risk accusations of greenwashing, leading to reputational damage and legal issues. This risk is highlighted by De Silva Lokuwaduge and De Silva (2022) and Santos et al. (2023). Hence, the following hypothesis was formulated.

**H3:** The initial investment costs in sustainability negatively impact the short-term profitability of Dutch SMEs in the automotive, transport, and logistics sectors.

### 3. Method

This methodology chapter describes the research method using different sections. In the first section, the research design is elaborated. The second section explains how the selection and sample are created. In the measurement section, the constructs are explained. Followed by the section that outlines how the data is collected. The following section is about how this data is analysed and the last section outlines how the data is managed within this study.

#### 3.1 Research design

This research builds upon prior studies and theories in the field and is exploratory in nature. To investigate the impact of sustainable engagement on the financial performance of companies in the Dutch Automotive, Transport, and Logistics (ATL) sector, three hypotheses have been formulated in the preceding chapter. In today's literature, different methods are used to execute research in the field of sustainability and financial performance. The three most used methods in this research field are detailed hereafter.

M. Adams et al. (2012) and Alshehhi et al. (2018b) conducted research on the impact of sustainability on the financial performance of companies. Both studies were conducted through literature reviews. The reason for this method is that these studies primarily focus on corporate finance, which pertains to larger enterprises with abundant information available. This method is challenging to use in the present research, which examines SMEs.

D. C. Pham et al. (2021) and Ameer and Othman (2011) conducted research on sustainability practices and corporate financial performance via empirical research with quantitative analysis. Again, these studies utilize data from larger listed firms, with no data from SMEs. These studies employ large datasets and published sustainability rankings.

Goh et al. (2020b) researched the triple bottom line theory using a literature review method. However, this study mostly utilised case studies to demonstrate the methods of the reviewed literature. P. Artin (2022) and Ciasullo and Troisi (2013) conducted research on sustainability value creation in the SME market, both employing case studies. Falle et al. (2016) also used the case study method, showing it to be suitable in the SME context as it provides detailed and practical insights into sustainability engagement.

The method used to investigate how sustainability engagement affects the financial performance and value of SMEs in the Dutch ATL sector will be through a multiple case study. A multiple case study is valuable for their in-depth insights into exploring causal relationships. In this research, multiple companies will be analysed with a focus on sustainability, aiding in understanding how sustainability engagement impacts financial outcomes within the ATL sector. By examining several firms, trends and developments can be identified that may be applicable across the entire sector. In contrast to a single case study, which focuses on one case and may not be representative of the broader industry, a multiple case study offers greater generalizability (Nizam et al., 2019). Moreover, a multiple case study allows for the integration of both quantitative and qualitative data, offering a more comprehensive analysis, and making it a suitable research method for this study (Seawright et al., 2016). Additionally, according to Murillo and Lozano (2006), conducting case studies is the optimal approach in the realm of sustainability and SMEs. The effect is analysed based on both quantitative and qualitative data, employing a mixed-methods approach (Carter et al., 2014). Mixed-methods research enhances the reliability of the study (Malina et al., 2011). The research is quantitative as it uses annual reports and qualitative as semi-structured interviews are conducted.

Semi-structured interviews as a data collection method are valuable for providing depth in research (Adams, 2015). Additionally, conducting interviews is beneficial for aspects that are difficult to address through closed questions (H. van der Kolk, n.d.). This is the case in this study as it explores when sustainability initiatives were introduced and why. Murillo and Lozano (2006) assert that understanding sustainability can be challenging for SMEs, thus suggesting the use of open-ended questions on this topic. The interviews will be semi-structured, utilizing prepared questions. Semi-structured interviews with open-ended questions provide valuable insights from companies (Rennie, 2006, pp. 59-78). As mentioned earlier, the quantitative data in this study comprise the financial performance of the company. These data are based on the annual financial statements (before and after sustainability actions) of the respective SMEs.

In this study, the following methodological process is used. The first step in the case study is to design the right research questions. The second step is to define the right research method within case studies. The most common method is semi-structured interviews. Steps 3 & 4 involve permission-seeking and ethical considerations. These two steps are essential for creating enthusiasm for participation and ensuring ethical accountability, which is important in every research study. The following step is the interpretation process, which is done by coding with qualitative data. When the coding is done, researchers will look for differences or similarities between the codes, a process called thematic coding. The final step of the case study protocol is to meet the assessment criteria, which involve the reliability, validity, and generalizability of the study (Rashid et al. 2019).

### 3.2 Case Selection and Sample

The population of this study comprises Dutch SMEs in the ATL sector. The European Commission defines SMEs as companies with fewer than 250 employees and an annual turnover of up to 50 million (European Commission, 2021). The case selection technique employed in this research is typical. The sample size consists of five cases. The sampling method utilised in this study is purposeful sampling. With purposeful sampling, the researcher can select the sample. Although this may reduce reliability, purposeful sampling provides valuable insights that are more closely related to case study research (J. Maxwell, 2009). Purposeful sampling is particularly suitable for this research as it aligns with the study's objectives and the need for in-depth, relevant data. This method allows for the selection of companies that are actively engaged in sustainability, facilitating the collection of rich qualitative insights essential for examining the relationship between SE and financial performance (Palinkas et al., 2015). In contrast, random sampling does not guarantee that the selected companies are involved in sustainability practices, which could dilute the relevance of the data collected. The criteria for selecting companies in this study include their presence in the automotive, transport, and logistics sectors, where sustainability has become increasingly significant due to regulatory and environmental pressures (Kumar et al., 2015). Furthermore, it is essential that the selected firms have a demonstrated commitment to sustainability initiatives to ensure meaningful analysis of their sustainability engagement in relation to financial outcomes. Access to comprehensive financial and sustainability data is also crucial, as it enables the integration of qualitative and quantitative analyses, thereby providing a more thorough understanding of how SE impacts financial performance and firm value (Yin, 2014).



### 3.3 Measurement

The constructs of this research include Sustainable Engagement and financial performance. The dependent variables of this study are the financial performance indicators, namely, ROA, ROE And EBITDA. These are measured using quantitative data. The independent variables are Sustainability Engagement and Time. Time is defined in this study as the period before the company engages in sustainability and sustainability investments and the period after engaging in sustainability and sustainability investments. The time variable is derived from interview data and thus measured using qualitative data. Firm size is utilised as a control variable in this research. In sustainability, firm size is significant because larger companies typically have more financial resources to invest in sustainability (Callan et al., 2009).

#### 3.3.1 Competitive Advantage and Access to Capital

Respondents were asked to rate their company's competitive advantage before and after implementing SE efforts on a scale of 1 to 10 to quantify competitive advantage. This quantitative evaluation offered a clear and comparable measure of perceived changes. In addition to the grading, follow-up questions were posed to get insight into the rationale behind the results, enabling participants to expound on elements including staff happiness, operational efficiency, customer requirements, and market distinctiveness.

Similarly, respondents were asked to rate (on a scale of 1 to 10) how easy it was to get external financing both before and after putting SE initiatives into action. Additionally, participants were asked to provide justification for their evaluations. This included exploring the influence of SE initiatives on loan conditions, such as interest rates, as well as the role of company solvency, profitability, and eligibility for subsidies.

#### 3.3.2 ROA and ROE

ROA and ROE are both financial performance indicators. ROA, which stands for Return on Assets, indicates how the company generates profit in relation to the assets it possesses. ROA is calculated using the formula:  $EBIT / Total\ Assets$ . On the other hand, ROE, or Return on Equity, reflects how the company generates profit in relation to its equity. ROE is calculated using the formula:  $EBIT / Total\ Equity$ . Both ROA and ROE are commonly used as financial metrics to assess the health of a company. In this study, both ROA and ROE are employed due to their focus on different aspects of business operations (Safi et al., 2024).

#### 3.3.3 EBITDA per FTE

EBITDA, or "Earnings Before Interest, Taxes, Depreciation, and Amortisation", is a measure of a company's profitability and operational performance. It represents operating profit before interest, taxes, depreciation and amortisation, thus reflecting the company's core profit (Kludacz-alessandri & Cygańska 2021). FTE or "Full-Time Equivalent" is a unit of measurement that represents the workload of the employee in terms of full-time hours (CFI, 2023). EBITDA per FTE was selected as a measure to account for the control variable of firm size, allowing for a standardized comparison of financial performance across companies with varying workforce levels.

#### 3.3.4 Time

In this study, time plays a crucial role in assessing the impact of sustainability initiatives on financial performance (R. G. Eccless, et al. 2014). The three financial indicators (ROA, ROE and EBITDA) are analysed at specific time points, making changes in SME's performance clearer. Interviews provided insight into when SMEs started implementing sustainability initiatives. Based on this information, annual reports were collected from the year before and the year after the initiatives were introduced. This comparison over time allows a link between changes in financial performance and the introduction of sustainability engagement, providing a stronger basis for establishing a causal relationship between sustainability engagement and financial performance. The short-term analysis in this study is based on the financial performance during the year in which the SE initiatives were implemented, encompassing a period of less than one year (<1 year). In contrast, the long-term analysis captures financial performance in the subsequent year, representing a period of more than one year (>1 year). This approach aligns with prior research that distinguishes between immediate and delayed financial impacts of sustainability initiatives, emphasizing the need to account for varying temporal effects when assessing performance outcomes (R. G. Eccless, et al. 2014).

### 3.4 Data collection

In this study, data collection will be conducted through semi-structured interviews. This method is chosen because it allows for flexibility in exploring key themes related to sustainability engagement while ensuring that all relevant topics are covered. Semi-structured interviews offer the opportunity to delve into complex issues such as the integration of sustainability initiatives and their impact on financial outcomes.

The target companies for these interviews will be SMEs within the Dutch automotive, transport, and logistics (ATL) sector. These industries are chosen because they face significant sustainability challenges and opportunities, driven by regulatory and competitive pressures. Additionally, this sector is highly relevant to the research, given its environmental impact. Within each company, interviews will be conducted with individuals who are directly involved in sustainability initiatives. Typically, this will include managers, financial officers, and decision-makers responsible for both strategic and operational sustainability efforts. These participants are selected because they possess critical insights into how sustainability engagement is measured and implemented. By interviewing individuals with these roles, the research ensures that diverse perspectives are captured, ranging from the operational challenges of sustainability to its strategic implications on financial performance. This approach will provide a comprehensive understanding of how sustainability initiatives are shaping financial performance in this sector.

In addition to the interviews, data was collected through desk research. Desk research was conducted to further analyse the findings from the interviews and to determine whether new insights could be obtained. Websites, news articles, and other relevant online resources were analysed, and the topics that emerged were incorporated into this study. This method enabled a broader understanding of the context and contributed to a more comprehensive analysis of the research topic.

### 3.5 Data Analysis

For the data analysis in this study, the semi-structured interviews will be fully transcribed and subsequently coded using Atlas.ti software; the setup can be found in Appendix 1. The coding process will follow a structured approach, beginning with open coding to capture initial themes based on participants' responses. This approach enables the identification of relevant themes and patterns related to sustainability engagement. The qualitative data will be analysed using the Gioia methodology, which ensures rigorous data analysis for valid research outcomes. This method involves the application of codes, second-order themes, and aggregate dimensions (Magnani & Gioia, 2023). The insights from the interviews are compared with the data obtained from desk research to determine whether they complement or conflict with each other. Next, the quantitative data is analysed to understand what it reveals. This analysis is conducted using Excel, which facilitates the identification of patterns and relationships per company that are crucial for testing the hypotheses. By integrating both qualitative and quantitative data, this approach enables a comprehensive examination for testing the hypotheses.

To test Hypothesis 1, the study integrates qualitative and quantitative approaches. Structured interviews are analysed using the Gioia methodology to identify themes linking sustainability engagement to competitive advantage. These insights are cross-referenced with desk research to ensure consistency and validity. Quantitative data, such as financial performance indicators (ROA, ROE, and EBITDA per FTE), is examined using Excel to assess changes before and after sustainability initiatives. Additionally, relationships and patterns are analysed per company to uncover specific dynamics between sustainability practices and financial outcomes. By combining qualitative trends with company-specific financial metrics, the analysis seeks to determine whether sustainability

engagement contributes to competitive advantage and improved financial performance in Dutch SMEs within the automotive, transport, and logistics sectors.

To test Hypothesis 2, the study explores whether sustainability engagement enhances access to capital, potentially influencing financial performance (ROA, ROE, and EBITDA per FTE). Interview data is analysed to uncover perceptions of access to capital before and after sustainability initiatives, with responses cross-referenced against desk research for validity. Financial data is then examined to identify potential correlations between sustainability practices and improved capital access. Relationships and patterns are analysed per company to assess how increased access to capital may contribute to financial performance improvements, integrating qualitative insights with quantitative financial indicators.

To test Hypothesis 3, the study examines whether the initial costs of sustainability investments negatively impact short-term profitability, thus assessing their potential as a financial burden in the short term. Interview data is analysed to capture company perspectives on these upfront costs, with findings triangulated against desk research to validate the insights. Additionally, financial statement data is used to evaluate the actual impact of sustainability-related expenses on profitability metrics. Patterns and relationships per company are analysed to provide a nuanced understanding of how these costs influence short-term financial performance.

To address the research question "*How does SE influence the financial performance of SMEs operating within the Dutch automotive, transport, and logistics sector?*", both qualitative and quantitative data will be analysed. By combining qualitative data with financial metrics, the study aims to ascertain whether SE positively influences financial performance (Hypotheses 1 and 2) and whether the initial costs of sustainability investments negatively impact short-term profitability (Hypothesis 3), thus forming a comprehensive view of the effects of SE on the financial performance of SMEs in this sector.

### 3.6 Data management plan

This research adheres to strict ethical and confidentiality standards during both data collection and analysis. Prior to conducting the interviews, participants will receive a detailed explanation of the purpose of the study and the nature of the interviews. They will be informed about their role in the research and how their data will be utilised. Consent will be obtained from participants before the interviews, ensuring that their data can be used and informing them that all data will be fully anonymized. This study will follow the ethical guidelines established by the University of Twente. The privacy rights of participants will be regarded as paramount throughout the research process.

## 4. Results

Each company interviewed demonstrated an awareness of the concept of sustainability. Notably, four out of the five companies explicitly described sustainability in terms of the three dimensions: people, planet, and profit, aligning with the definition used in this study. This chapter is divided into four sections. In section 4.1, a brief company description of each firm is described to give a proper overview of the cases, in addition, a description of the results from the desk research was provided. In 4.2, environmental sustainability is discussed. In 4.3, social sustainability is discussed. 4.4 looks at financial performance and 4.5 looks at quantitative data. The coding scheme of the interviews can be found in Appendix 1. The Bold words in sections 4.2, 4.3 and 4.4 are based on the 1<sup>st</sup> order codes which can be found in the coding scheme.

### 4.1 Case Overview

**Company A** is a versatile mobility company offering a wide range of services. Its activities include taxi transportation for private individuals, corporate clients, and healthcare institutions. Additionally, Company A plays a crucial role in long-term contracted transportation, such as services for students and individuals with mobility challenges, and it provides tailored solutions for event organizations. With a modern fleet, Company A is a well-established SME within its region. Sustainability is central to its strategy, with investments in electric and hybrid vehicles and the optimization of logistical processes to reduce environmental impact. This forward-looking approach positions Company A as a leader in sustainable mobility innovation. Desk research highlights Company A's active engagement in sustainability efforts, with the ambitious goal of fully electrifying its fleet in the coming year through the installation of batteries and solar panels. This project represents a substantial investment estimated at approximately €5 million. Furthermore, the company has recently obtained ISO-14001 certification, a globally recognized standard for environmental management (A. Cunha, et al 2020). This certification attests to Company A's adherence to environmental legislation and its commitment to reducing environmental impact, reinforcing its role as a leader in sustainable business practices.

**Company B** is a leading transport company in the region, specializing in national and international freight transportation. With a large and modern fleet consisting primarily of trucks, Company B focuses on efficiently and reliably delivering goods across Europe. Its emphasis on advanced logistics solutions enables it to serve a wide range of sectors, including industry, retail, and construction. The company provides customized services for its clients and leverages innovative technologies to optimize routes, control costs, and shorten delivery times. Alongside its reliability, sustainability is a key priority. Company B invests in eco-friendly vehicles such as LNG and electric trucks and actively participates in initiatives aimed at greening the transport sector. Desk research reveals that Company B has received the prestigious Lean & Green award, a recognition granted to transport companies committed to reducing their environmental impact, particularly CO<sub>2</sub> emissions. The company has set an ambitious target to achieve a minimum 20% reduction in CO<sub>2</sub> emissions over five years. To meet this goal, Company B employs strategies such as implementing speed limiters, conducting driving style analyses, and investing in fuel-efficient transportation equipment. Additionally, the company prioritizes employee well-being, which has led to a significant reduction in absenteeism. This achievement is attributed to a robust focus on employee vitality, including a policy of ensuring replacements for all roles, allowing employees to take time off without concerns. Moreover, a dedicated medical team supports employees by addressing absences and facilitating reintegration processes, underscoring Company B's holistic approach to operational excellence and sustainability.

**Company C** specializes in lifting and transport solutions, offering a diverse range of heavy equipment such as cranes and trucks. The company supports complex projects in sectors like construction, infrastructure, and industry, handling tasks from installing heavy machinery to hoisting prefabricated elements on construction sites. In addition to renting cranes and transport vehicles, Company C manages comprehensive logistical operations, including planning and execution. Revenue streams include equipment rentals, project-based services, and maintenance contracts. With a strong focus on safety and efficiency, the company is a trusted partner for businesses requiring specialized expertise. Sustainability is important, with investments in eco-friendlier trucks and cranes equipped with fuel-efficient engines and reduced emissions. The company also optimizes logistical processes to minimize fuel consumption and emissions. Desk research highlights that Company C is actively pursuing sustainability initiatives, including investments in emission-free lifting equipment. A significant portion of the company's energy consumption is self-generated, primarily through solar panels. Moreover, Company C demonstrates its commitment to social sustainability by employing individuals with disabilities, fostering an inclusive workforce, and promoting equitable labour participation. The company acknowledges the multifaceted advantages of sustainable business practices, emphasizing that its sustainability efforts extend beyond environmental and social benefits. Notably, the company's sustainable operations enhance its differentiation in the market, positioning it as a leader in innovation and responsible business practices.

**Company D** is a well-established automotive dealership specializing in the sale, rental, and maintenance of vehicles. Serving both individual consumers and businesses, Company D provides reliable, high-quality vehicles. Beyond its core business of vehicle sales, the company offers comprehensive service and maintenance options, including inspections, repairs, and 24/7 roadside assistance. Company D emphasizes sustainability by helping customers transition to eco-friendly vehicles such as hybrid and electric models. Additionally, its garages employ energy-efficient methods to conserve resources and reduce waste. According to desk research, sustainability plays a crucial role for Company D. Investments have already been made in solar panels and heat pumps, but this is just the beginning. The company has received a certificate (Erkend Duurzaam certificate) for its sustainability efforts. This Dutch certification is awarded when a company makes improvements in sustainability across all aspects of its operations, such as using green energy and reusing products. Additionally, Company D considers employee well-being, achieved through good working conditions and listening to colleagues, as another key aspect of sustainability. By doing so, the company fosters engagement, which is an important factor for the success of the business, as evidenced by long-lasting customer relationships and high customer satisfaction. Company D is convinced that investing in sustainability is profitable due to the efficiency benefits it provides.

**Company E** is a specialized Volvo and Renault truck dealership with a strong focus on sales, maintenance, and rental of trucks. Operating from multiple locations, Company E serves transport companies and logistics providers in need of reliable, efficient vehicles to support their operations. In addition to selling new and used trucks, the company offers extensive maintenance services, including vehicle inspections, repairs, and fleet management solutions. These services help customers extend the lifespan of their vehicles and minimize downtime. Sustainability is a core aspect of Company E's strategy. It promotes the adoption of electric and hybrid trucks and provides advice on fuel efficiency and emission reduction. In its own workshops, the company implements environmentally friendly practices and uses recycled materials whenever possible. Desk research indicates that Company E has set objectives to drastically reduce its CO2 emissions. This is being achieved through the electrification of its vehicle fleet, the 'greening' of office buildings with solar panels and heat pumps, as well as improving operational efficiency. In addition, Company E is actively involved in supporting charitable

causes and collaborates with organizations that assist individuals facing barriers to employment. The quality of the company is largely created by its employees, and employee well-being is also a key driver for the company's overall quality.

4.2 Environmental sustainability

Tables 1 and 2 shows the environmental initiatives per company. Table one shows an overview of the initiatives per company, while table two shows the number of initiatives. For table 1, column one shows the company while the second column shows the sustainability engagement categories that the interviewed companies participate in. In the third column the exact investments are shown. As shown in table 2, four out of the five companies interviewed are either in the process of installing **solar panels** or have already done so. *“We have installed solar panels on the roof, allowing us to utilize solar energy for our own use”* (Financial Controller – Firm B). *“We currently have two locations without solar panels, but after the first quarter of next year, they will also be installed”* (Financial Director – Firm D). **Reducing CO<sub>2</sub> emissions** emerged as a significant theme within the sector. *“We aim to reduce CO<sub>2</sub> emissions as an organization, and we’ve examined how to achieve that, focusing on our vehicle fleet”* (Innovation manager – Firm E). Three out of the five companies are actively working on **electrifying their vehicle fleets**. *“We have now electrified one-third of our fleet”* (Financial Director – Firm A).

Company	SE Category	Environmental Initiatives
A	Resource Use	Solar Panels
	Emission	Elektrification of Vehicles
	Resource Use	Battery/ energy for electricity
B	Resource Use	Solar Panels
	Emission	CO2 Reduction
	Emission	Elektrification of Vehicles
C	Innovation	Vehicles Modernization
D	Resource Use	Solar Panels
	Emission	CO2 Reduction
	Innovation	Product Recycling
E	Resource Use	Solar Panels
	Emission	CO2 Reduction

Table 1: Environmental Initiatives per Company

SE Initiative/ Company	A	B	C	D	E	Overview
Solar Panels	X	X		X	X	4
Elektrification of Vehicles	X	X				1
Battery/ energy for electricity	X					1
CO2 Reduction		X		X	X	3
Vehicles Modernization			X			2
Product Recycling				X		1

Table 2: Overview of the Number of Environmental Initiatives

In addition to the types of environmental sustainability initiatives, several reasons were identified for why companies choose to implement these initiatives. **Client requirements** were frequently cited as a driving factor. *“Clients are focusing on this, so we are being pushed in that direction”* (Innovation manager – Firm E). *“And of course, we’re being pressured by clients who also demand it”* (Financial Director – Firm A). **General awareness of sustainability** was also considered important, given the shared responsibility for the planet. *“It’s an intrinsic motivation as an organization. We all need to take action for this planet, so we must adopt sustainable practices”* (Financial Director – Firm A) **Market changes** were another reason for implementing environmental sustainability initiatives. *“If we don’t act now, the continuity of our organization will be at risk. So, we have no choice”* (Financial Director – Firm A). *“Government regulations are also changing. For example, there will be zones you won’t be allowed to drive into, which also plays a role”* (Innovation manager – Firm E).

Despite the clear engagement of all companies in sustainability efforts, they also identified reasons for not pursuing environmental sustainability initiatives. The **high cost** of investment and customers’ unwillingness to pay for sustainable products were notable barriers. *“A house costs €300,000–€400,000 to build. Then the contractor says, ‘Fine, but it will cost you €60,000 more to make it sustainable because I need to order specific materials.’ Will you agree to that? The answer is 99.9% no”* (CEO – Firm C). Additionally, while many companies aim to electrify their vehicle fleets, **long-haul transport remains a challenge for full electrification at present**. *“I think transport from here to Italy being fully electric is virtually impossible in the coming years”* (Financial Controller – Firm B). *“Those electric cranes don’t operate electrically. It’s just not technically feasible yet, similar to trucks”* (CEO – Firm C).

### 4.3 Social sustainability

Tables 3 and 4 shows the social initiatives per company. Table one shows an overview of the initiatives per company, while table two shows the number of initiatives. For table 1, column one shows the company while the second column shows the sustainability engagement categories that the interviewed companies participate in. In the third column the exact investments are shown. Table 2 shows that all selected companies consider social sustainability an essential aspect of their operations, and each company engages with it in various ways. **Employee well-being** emerged as a crucial social sustainability initiative. *“The social aspect is important for everyone. Ensuring that people feel good and can do their work here is key”* (Financial Controller – Firm B). *“Providing personal attention to customers, suppliers, and employees creates a high level of loyalty”* (Financial Director – Firm D). The evolving nature of society also highlights the importance of **interactions with others and adherence to social norms and values**. *“In the past, in the world of drivers, there was simply a planner saying, ‘You do this, you do that, no complaints—just drive.’ But that doesn’t work anymore. That’s not how society operates”* (Financial Controller – Firm B). *“First and foremost, we believe in treating people with respect. If you make an agreement with an employee, you honor it”* (Financial Director – Firm D). Hiring **individuals with a distance from the labor market** was another prominent social sustainability initiative. *“The most recent example we had here was a blind girl who could only see 1%. She handled administrative tasks, and it went exceptionally well”* (CEO – Firm C). Social initiatives targeting external stakeholders are also crucial, as they not only focus on employees but also have a broader impact on the entire community. Two common initiatives in this area were **customer satisfaction and corporate sponsorships**. *“Yes, we also have social sustainability goals. We have our own foundation, which supports people affected by serious illnesses. In addition, we support many sports associations.”* (Innovation manager – Firm E). *“Personal attention towards customers, personal attention towards employees, and also personal attention towards suppliers. This creates a high level of loyalty.”* (Financial Director – Firm D).



Company	SE Category	Social initiatives
A	Workforce	Employee well-being
	Community	Customer satisfaction
	Community	Corporate sponsorships
B	Human Rights	Social Norms and Values
	Workforce	Employee well-being
	Community	Corporate sponsorships
C	Workforce	Employee well-being
	Workforce	Employment for individuals with a distance to labor market
D	Human Rights	Social Norms and Values
	Workforce	Employee well-being
	Workforce	Employment for individuals with a distance to labor market
	Community	Customer satisfaction
E	Human Rights	Social Norms and Values
	Workforce	Employee well-being
	Workforce	Employment for individuals with a distance to labor market
	Community	Customer satisfaction
	Community	Corporate sponsorships

Table 3: Social Initiatives per Company

SE Initiative/ Company	A	B	C	D	E	Overview
Employee well-being	X	X	X	X	X	5
Customer Satisfaction	X			X	X	3
Corporate sponsorships	X	X			X	2
Social Norms and Values		X	X	X	X	4
Employment for individuals with a distance to labor market			X	X	X	3

Table 4: Overview of the Number of Social Initiatives

Various motivations for adopting social sustainability initiatives were identified. *“It’s simply part of it—to employ people with a distance from the labor market”* (CEO – Firm C). The **positive effects of personal attention** were frequently mentioned. While personal attention requires time and financial investment, companies view it as a worthwhile endeavor. *“Improving employee well-being does involve a financial investment, but in my opinion, it’s worth every penny”* (Financial Controller – Firm B). *“The time and energy we’ve invested in personal attention have more than paid off tenfold”* (Financial Director – Firm D). **The nature of the company** also influences the adoption of social sustainability initiatives. *“Shareholders place a high value on involvement, such as through sponsorships. You are also there for your community”* (Innovation manager – Firm E). *“We employ workers with a distance from the labor market because they have been with us for many years. You don’t simply let them go after they’ve worked for you for 30 or 40 years”* (Financial Director – Firm D). Given the critical **importance of people within a company**, treating them well is seen as essential. *“No, I don’t see any reason not to engage in social sustainability initiatives. People are your greatest asset—you must invest in them”* (Financial Director – Firm A). *“I have no reasons not to focus on social sustainability. If you turn a blind eye to it, you completely miss the mark”* (Financial Controller – Firm B).

The social sustainability initiatives described above **require manpower and expertise**, and this often serves as a barrier to implementation. *“The daily hustle and bustle sometimes prevent you from*

addressing these initiatives” (Innovation manager – Firm E). “You inevitably run up against the limits of what you can handle and accomplish” (Financial Director – Firm D). Additionally, financial considerations play a critical role in the adoption of these initiatives. Companies carefully assess the **costs and benefits** of their investments. “If there’s no money, then sustainability efforts inevitably come to a halt” (Innovation manager – Firm E).

#### 4.4 Perceived benefits of SE

The direct link between sustainability engagement and financial performance is challenging to quantify and even more difficult to measure. “It is hard to determine. We have our own charging station, which is a significant investment. Then there are the vehicles, for which we don’t yet have clear insight into factors like lifespan, maintenance costs, and so on” (Financial Director – Firm A). “I cannot draw a direct connection and say that this specific investment led to significantly better financial performance” (Financial Controller – Firm B). Quantifying the input and output of sustainability initiatives proves to be a complex task. “What does it yield? That’s sometimes hard to determine because, as a company, you are working on continuity, ensuring you retain employees, but where does that value ultimately manifest?” (Financial Controller – Firm B).

Two out of five companies indicated that their **competitive advantage** had improved by one point on a scale from 1 to 10 due to their sustainability efforts. Comparing their competitive position before and after implementing sustainability initiatives, the perceived advantage showed modest improvement. “I think it has slightly improved, but it’s also very difficult to look back because, for example, in 2018 or even earlier, the perception of sustainability and how you approached it was entirely different from today” (Financial Director – Firm D). The remaining three companies noted a more significant improvement, estimating an increase of 2 or even 3 points due to sustainability efforts. “I think we used to be average, around a 5 or 6. Now, I believe we are at the forefront of the market, scoring an 8 or 9” (Financial Controller – Firm B). “As I mentioned earlier, it has improved from a 6 to an 8. Companies that don’t adopt such measures cannot include them in their reports, so they are already at a disadvantage. What we are doing holistically makes the critical difference compared to others” (Financial Director – Firm A). The companies described that the improvement in their competitive position results from demonstrating sustainability engagement (SE), which allows them to win contracts and tenders that competitors cannot secure. “Many companies hesitate to make that investment. However, by being able to invest, we can make a difference, both in attracting new employees and in dealing with clients and the future, particularly in tender work.” (Innovation manager – Firm E). “When tenders ask if you can operate sustainably, you no longer have a choice.” (Financial Director – Firm A).

Looking at **access to capital**, each company initially stated that sustainability engagement does not immediately provide better access to capital, but the required conditions for obtaining access to capital are more favourable. “That has actually never been a problem, in all respects. If you are successful, access to capital is not an issue.” (Financial Director – Firm D). The Conditions are more favourable because if the firm shows Sustainability initiatives they can get lower interest rates. “Yes, the conditions become more favourable. I would say that it’s not like we will now receive a loan that we couldn’t get otherwise. I think the conditions just become better.” (Financial Controller – Firm B). “The only thing is that there are more opportunities to obtain loans for investments if you invest sustainably. And it becomes a bit easier. This is naturally encouraged to stimulate all of us to become more sustainable. So, the rules become a bit more flexible.” (Financial Director – Firm A). “Access to capital was just as easy before sustainability efforts; at most, you get a discount on the interest rate.” (Innovation manager – Firm E).

The interviews provide various insights regarding **the impact of sustainability initiatives on short-term profitability**. Firm B indicates that sustainability has had relatively little effect on short-term profits. *"For us, it's been relatively little. It's not like our profits have become much higher or much lower because of it."* (Financial Controller – Firm B). On the other hand, Firms C and E offered insights suggesting that sustainability initiatives have a negative impact on short-term profitability. *"Because if you decide to hire someone who will add value in two years, it obviously costs money in the short term."* (CEO – Firm C). *"For example, if you choose a diesel truck over an electric one, the latter is simply more expensive. And you need to recoup that cost over the entire lifespan. So, short-term profits are lower. But that is just due to the investment, which is three times as high."* (Innovation manager – Firm E). Two companies mentioned that sustainability investments are primarily for the long term, i.e., for the future. *"Yes, but those kinds of investments can't be recouped quickly. They just have a longer payback period."* (Financial Controller – Firm B). *"I think the important thing is that you don't do it for short-term gains, that's not it. No. But for the future, of course."* (Financial Director – Firm A).

#### 4.5 Financial Performance Indicators ROA, ROE and EBITDA

The qualitative analysis identified key sustainability initiatives and their perceived effects on competitive advantage and access to capital. To further validate and quantify these findings, annual reports were used, examining the relationship between sustainability engagement and financial indicators such as ROA, ROE, and EBITDA.

The following calculations were carried out to complete Table 5:

$$\text{ROA Change (\%)} = \frac{\text{ROA (year after SE)} - \text{ROA (year before SE)}}{\text{ROA (year before SE)}} \times 100$$

$$\text{ROE Change (\%)} = \frac{\text{ROE (year after SE)} - \text{ROE (year before SE)}}{\text{ROE (year before SE)}} \times 100$$

$$\text{EBITDA/FTE Change (\%)} = \frac{\text{EBITDA/FTE (year after SE)} - \text{EBITDA/FTE (year before SE)}}{\text{EBITDA/FTE (year before SE)}} \times 100$$

Figure 2: Calculations used for the Quantitative Analysis of Financial Performance Indicators

ROA Change (%): This is the percentage difference in ROA between the year after and the year before SE, calculated as a percentage of ROA before SE.

ROE Change (%): This is the percentage difference in ROE between the year after and the year before SE, calculated as a percentage of ROE before SE.

EBITDA/FTE Change (%): The percentage difference in EBITDA per FTE between the year after and the year before SE, calculated as a percentage of EBITDA/FTE before SE. EBITDA per FTE has been chosen to include control variable firm size.

The table below (table 5) illustrates the extent of change in financial performance indicators. "Year of SE" refers to the year in which sustainability engagement (SE) initiatives took place, with the financial indicators being measured one year before and one year after the implementation of these initiatives.

Financial Performance Table						
Company	Sector	FTE	Year of SE	ROA Change	ROE Change	EBITDA/FTE Change
A	Transport	±240	2021	-79,7%	-86,7%	-69,9%
B	Transport/Logistics	±60	2022	-6,6%	-22,4%	-26,4%
C	Transport/Logistics	±100	2021	751,2%	604,5%	690,8%
D	Automotive	±220	2018	73,2%	46,1%	20,7%
E	Automotive	±200	2021	43,1%	112,8%	19,3%

Table 5: Financial Performance Indicators and Their Changes Measured One Year Before and After SE Initiatives

Hypotheses per Case			
Company	H1	H2	H3
A	Rejected	Rejected	Rejected
B	Rejected	Rejected	Rejected
C	Supported	Supported	Supported
D	Supported	Supported	Supported
E	Supported	Supported	Supported

Table 6: The hypotheses per case related to the results

## 5. Discussion

The aim of this research was to contribute to existing knowledge and address the theoretical gap in the literature by investigating the relationship between Sustainability Engagement (SE) and the financial performance (FP) of SMEs in the Dutch Automotive, Logistics, and Transport (ALT) sector. To address this gap, three hypotheses were formulated which created theoretical and practical implications and these are discussed in detail in 5.1. In section 5.1.1, the findings for each case were analysed and described, and each case contains a brief conclusion. By reflecting on both the qualitative (interviews and desk research) and quantitative findings (annual reports), this chapter establishes a connection between the three hypotheses and the existing theory which provides an integrated interpretation of the study's outcomes. Section 5.1.2 shows the comparison between SE in SMEs and Larger Corporates. In section 5.1.3 there is an overview of the contributions of this study.

### 5.1 Theoretical and Practical Implications

#### 5.1.1 Implications per Case

##### **Company A**

The findings of Company A highlight how sustainability measures in the transport sector require an integrated approach, balancing operational, financial, and strategic considerations (Stoilova, 2021). Company A offers a practical case study of these dynamics. The company's primary motivation for sustainability engagement comes from its recognition of the environmental damage that could result from inaction. This aligns with growing societal and regulatory expectations for businesses to adopt greener practices. Company A has made substantial investments to address challenges associated with the adoption of electric vehicles, specifically the lack of charging infrastructure. This aligns with Goldschmidt et al. (2019), who highlight charging infrastructure as a critical barrier to the widespread adoption of electric vehicles. By constructing its own charging station and solar panels, the company has differentiated itself from competitors and enhanced operational efficiency. Additionally, Company A anticipates lower operational costs for electric vehicles compared to fuel-powered vehicles, enabled by the use of its proprietary charging station. While specific cost comparisons are not yet available, this infrastructure positions the company to capitalise on long-term savings and reduced reliance on external charging networks.

Company A leverages its sustainability initiatives to meet growing customer needs and create a competitive edge. This approach has already led to tangible benefits, such as winning a tender. Horan (2022) supports this observation, noting that client awareness of sustainability is reshaping competitive dynamics. By aligning its strategies with client demands, Company A demonstrates how sustainability can drive business growth and market differentiation. However, Company A's sustainability engagement involves significant financial costs, with investments in the complete electrification of its vehicle fleet and supporting infrastructure totalling an estimated €5 million. Part of these investments has already been made and was financed through both equity and debt, which has contributed to a negative trend in the company's financial performance. This aligns with the findings of Khan et al. (2023), who note that sustainability initiatives, while difficult to replicate and valuable for competitive advantage, often strain short-term financial results. Company A explicitly states that these investments are intended as long-term commitments rather than short-term profit drivers.

Company A has not observed a direct link between sustainability engagement (SE) and access to external capital. However, it reports improved borrowing conditions, such as lower interest rates, as a secondary benefit of its SE initiatives. Desk research confirms that Company A secured reduced interest rates following its sustainability investments, aligning with Lau (2019), who highlights this as a growing

trend in financial markets. Furthermore, the company recognizes the importance of subsidies in supporting sustainability initiatives and intends to utilize them wherever eligible, though it acknowledges the challenges posed by strict guidelines and the administrative effort required to secure such funding.

Company A emphasizes the importance of aligning sustainability efforts with a long-term vision and has set a goal to recover these investments within five years. Although its profits declined in the year of implementing SE, the company views these investments as crucial for ensuring future resilience and competitiveness. This approach aligns with the findings of Bowen et al. (2001) and Esfahbodi et al. (2016), who argue that sustainability investments often require upfront costs but yield significant long-term benefits.

Company A focuses more on regulatory and policy changes and expects to have to provide reports in the future. On sustainability, Company A and B consider customer expectations more important compared to Company C. Company A demonstrates how targeted investments in electrification and infrastructure can lead to operational efficiency and market advantages. The motivation for these investments comes from the recognition of the environmental damage that could result from inaction, as well as growing societal and regulatory expectations. The emphasis is on balancing short-term financial burdens with long-term strategic benefits. Company A's case highlights the importance of an integrated approach that encompasses operational efficiency and market responsiveness while exercising financial caution to achieve a sustainable impact. Although Company A has not observed a direct link between sustainability and access to external capital, it has experienced improved borrowing conditions, such as lower interest rates.

### ***Company B***

The findings highlight how sustainability measures in the transport sector require an integrated approach, balancing technical, operational, and strategic decisions. Company B's approach provides a practical illustration of these dynamics. The company aligns its strategies with evolving client-driven sustainability demands and anticipated regulatory changes, such as city centres allowing only electric vehicles by 2025, which is expected by the Kamer van Koophandel (KVK, 2024). This forward-thinking approach positions the company to adapt proactively, as Kaleka and Morgan (2017) argue, enhancing competitive advantage by responding effectively to market changes. However, Company B also acknowledges that full electrification of trucks is not yet feasible for long-haul transportation, its core business, emphasizing the need for alternative measures.

In response, Company B has invested in solar panels to optimize energy use, an initiative that reflects P. Miklautsch and M. Woschank's (2022) argument that technical solutions alone are insufficient. As highlighted in the literature, companies must consider broader factors, such as market shifts and employee engagement, to drive impactful sustainability outcomes. Company B exemplifies this dual focus, combining technological investments with a commitment to employee well-being. Employee satisfaction is central to Company B's strategy. By fostering a positive work environment and actively listening to staff, the company has achieved notable improvements in vitality and absenteeism, aligning with Smolarek et al. (2024), who emphasize the link between employee well-being and competitive advantage. This approach not only supports sustainability but also strengthens operational efficiency, demonstrating how internal approaches for humans, can complement external sustainability initiatives.

Despite these strengths, Company B faces financial challenges due to its significant investments in solar panels and vehicle electrification. While short-term profits have remained stable, as noted in their

reporting, these investments have contributed to a negative trend in financial performance. This underscores the need for careful financial planning when implementing sustainability measures, as R.G. Eccles et al. (2014) suggest, to balance immediate returns with long-term gains. Additionally, while Company B has not observed a direct impact of sustainability efforts on access to external capital, it notes improved borrowing conditions, such as lower interest rates, as a potential benefit of sustainable practices. The availability of subsidies represents both an opportunity and a challenge for Company B. While subsidies can support financial stability, the company acknowledges the strict guidelines and administrative hurdles involved in securing these funds. This aligns with Bonoli (2010), who highlights similar challenges in accessing labour market-related subsidies.

Company B, like Company A, also focuses on regulations. However, Company B considers customer expectations more important and tries to implement technological developments wherever possible at the moment, as does Company C. Company B emphasizes the importance of a holistic approach to sustainability that combines technological innovation with employee engagement and financial caution. The motivation for sustainability comes from client-driven demands and anticipated regulatory changes, such as the expectation that city centres will only allow electric vehicles by 2025. Company B's case demonstrates that internal strategies focused on employee well-being can enhance external sustainability initiatives. By combining short-term cost management with long-term sustainability goals, Company B shows how transport companies can effectively navigate the complex demands of sustainable transformation. Despite the financial burdens of their investments, Company B has not observed a direct impact of sustainability on access to external capital but has experienced improved borrowing conditions.

### ***Company C***

The findings highlight how sustainability initiatives in the heavy lifting and transport sector require a strategic balance of regulatory compliance, operational investments, and financial planning. Company C's approach provides a practical example of these challenges and opportunities. Company C identifies government-imposed sustainability requirements as a key driver of its initiatives, contrasting with Companies B and A, where client demands play a more significant role. The company anticipates stricter regulatory demands, including mandatory sustainability reporting, aligning with projections from the Kamer van Koophandel (KVK, 2024) that SMEs will likely be required to submit CSRD reports by 2025. In preparation, Company C has invested in electric machinery to replace benzine-based systems. While these machines offer superior performance, lower emissions, and reduced maintenance costs, their high purchase price poses significant financial challenges. This is consistent with Fikus and Liszka (2024), who identify economic barriers as a major obstacle to adopting eco-friendly technologies in this specific sector. Company C has installed solar panels to complement its equipment upgrades, enabling it to generate a portion of its energy requirements independently. This investment has contributed to a positive trend in financial performance, as suggested by Do and Nguyen (2020), who emphasize that sustainability-driven differentiation can lead to financial improvements. The ability to combine technological innovation with renewable energy sources reflects the company's commitment to operational efficiency and environmental responsibility.

Company C views its sustainability investments as a key factor in achieving differentiation, and enhancing its competitive position in the market. This perspective aligns with Jaya et al. (2021), who argue that differentiation through sustainability can drive competitive advantage. Despite these benefits, Company C acknowledges that SE does not directly influence access to capital. For instance, the company's interest rates remain unchanged despite its sustainability efforts. However, it has benefited from subsidies linked to employing individuals facing barriers to employment. While these

subsidies provide financial support, the company highlights the administrative challenges involved in meeting the strict reporting requirements, consistent with the findings of Bonoli (2010). Company C has managed to achieve short-term profitability despite the high upfront costs of sustainability investments. This is evident in its annual reports, which show an upward trend in profits. However, during interviews, the company acknowledges that both social and environmental initiatives often involve costs that outweigh immediate returns, which is supported by Lane and Rosewall (2015), who emphasise the longer payback periods associated with SE investments. Company C's ability to balance these costs while sustaining profitability highlights its strategic financial management.

Company C places less priority on customer satisfaction, unlike Company A and B, which consider it more important. However, they do consider legislation and regulation very important and find that technological developments in the company also make them fit within the rules. Company C illustrates how sustainability in the heavy transport sector requires a strategic balance between regulatory compliance, technological innovation, and financial planning. The motivation for sustainability comes from the anticipation of stricter regulations and the need to comply with government requirements. Despite economic barriers and strict subsidy requirements, investments in renewable energy and differentiated solutions provide a pathway to competitive advantage. Company C's case highlights the importance of aligning sustainability efforts with both short- and long-term business goals while maintaining profitability. Although Company C has not seen changes in interest rates despite their sustainability efforts, it has benefited from subsidies that provide financial support.

#### ***Company D***

The findings highlight how sustainability efforts in the automotive industry require a balance of strategic, operational, and cultural elements to drive long-term success. Company D provides a case study of integrating sustainability into its operations while maintaining a strong cultural and financial foundation. Company D reports that both client expectations and regulatory requirements significantly influence its sustainability strategy. Similar to Company B, it anticipates adapting to shifts in market demands, such as the increased adoption of electric vehicles in urban centres by 2025. To meet these challenges, the company has invested in solar panels, which contribute to its operational efficiency and environmental goals. This aligns with the findings of Jaya et al. (2021), who argue that sustainability-driven differentiation supports competitive advantage.

Company D's sustainability approach is deeply rooted in its cultural values, established by its founders. The company emphasizes the importance of ethical business practices, such as honouring commitments and fostering goodwill. This cultural emphasis is a legacy of the founder's strong moral principles, which continue to shape daily operations. As Kushwaha and Sharma (2015) suggest, such values enhance a company's reputation and goodwill, creating competitive advantages. Furthermore, Company D prioritizes employee well-being, describing its workforce as the foundation of its success. This focus aligns with Smolarek et al. (2024), who emphasize the link between employee satisfaction and enhanced competitive positioning. Additionally, Do and Nguyen (2020) link competitive differentiation to financial success, a connection evident in Company D's positive financial results.

Unlike many companies that face short-term financial strain from sustainability investments, Company D reports no decline in profits during the year of its SE initiatives. The company attributes this success to cost savings in areas like electricity consumption and waste management, demonstrating how operational efficiencies can mitigate the financial burden of sustainability investments. This aligns with R.G. Eccles et al. (2014), who highlight the importance of balancing short-term costs with long-term goals for SMEs. Company D explains that access to capital depends primarily on its financial performance rather than its degree of sustainability engagement (SE). However, it notes an indirect



benefit of SE: improved borrowing conditions, such as lower interest rates. This supports Rahman's (2017) argument that financial stability, rather than sustainability efforts alone, is critical for securing financing. Additionally, unlike other companies, Company D places less emphasis on subsidies, focusing instead on maintaining robust financial metrics to ensure external capital access.

Company D places less emphasis on legislation and regulations compared to Company E. However, they consider customer satisfaction more important than Company E and are actively engaged in technological developments. Company D demonstrates how sustainability can be seamlessly integrated into business practices, aligning with client and regulatory expectations while reflecting the company's core cultural values. By prioritizing employee well-being and operational efficiencies, Company D mitigates the financial challenges often associated with sustainability investments. Its ability to maintain profitability and secure favourable borrowing conditions underscores the importance of balancing ethical, operational, and financial priorities. This case exemplifies how sustainability efforts when aligned with a company's broader mission and goals, can drive competitive advantage and long-term success.

### ***Company E***

The findings illustrate how sustainability in the truck dealership and maintenance sector requires balancing operational efficiency, employee well-being, and financial viability. Company E serves as a case study of these dynamics, showcasing both the opportunities and challenges of integrating sustainability into core business practices. Company E emphasizes the importance of employee well-being, viewing its workforce as a cornerstone of success. Like Company D, the company links employee satisfaction to customer engagement and competitive advantage. This connection is supported by desk research, which reveals that fostering a positive work environment enhances employee productivity and strengthens customer relationships. Such initiatives align with Smolarek et al. (2024), who argue that employee well-being is integral to achieving competitive differentiation.

To enhance its sustainability profile, Company E has invested in solar panels, which have delivered measurable efficiency benefits. These investments not only reduce operating costs but also improve the company's market position. However, like many SMEs, Company E faces financial constraints and operational demands that complicate the implementation of sustainability initiatives. This aligns with Abdul-Azeez et al. (2024), who highlight the resource limitations and daily pressures SMEs encounter when prioritizing sustainability.

Company E notes that access to capital primarily depends on solvency, with sustainability engagement (SE) playing a secondary role. Although the company has not disclosed specific interest rate changes, it reports that SE can improve borrowing conditions. Subsidies represent an additional opportunity for financial support, but Company E acknowledges the challenges SMEs face in securing them. Larger corporations, with dedicated sustainability teams, are often better positioned to navigate the stringent requirements for subsidy eligibility (Heras-Saizarbitoria et al., 2021).

Company E's annual reports indicate a positive trend in profitability, even as the company invests in sustainability. This reflects its ability to manage the short-term costs of social and environmental initiatives while positioning itself for long-term success. Similar to Company C, the company acknowledges that SE often involves delayed returns, consistent with Lane and Rosewall (2015), who emphasize the longer payback periods associated with sustainability investments. Despite these challenges, Company E views sustainability as a strategic imperative, enabling it to align with evolving market demands and regulatory expectations.

In addition to selling trucks, Company E offers maintenance services, including fleet management and vehicle inspections, which help customers extend the lifespan of their vehicles. By integrating sustainability into these services, such as promoting fuel efficiency and emission reduction, the company positions itself as a trusted partner in its customers' sustainability journeys (De Wilde 2023). This dual focus on sales and maintenance aligns with the company's broader sustainability goals while creating value for its clients.

Company E, on the other hand, values legislation and regulations and expects changes in this area in the coming years. Although customer satisfaction is also important to them, Company D puts more emphasis on this. Company E is more active in technological developments and therefore scores better here. Company E demonstrates how truck dealerships and maintenance providers can integrate sustainability into their operations, balancing immediate financial challenges with long-term strategic benefits. By prioritizing employee well-being, operational efficiency, and customer-centric sustainability, the company enhances its market position and prepares for future regulatory and market shifts. However, its experience also highlights the resource constraints faced by SMEs, emphasizing the need for targeted support to enable smaller businesses to meet their sustainability goals effectively.

### 5.1.2 Comparison between SE in SMEs and larger corporates

In contrast to the SMEs studied, larger corporations have more resources and dedicated sustainability departments (Abdul-Azeez et al., 2024). While this provides them with advantages in implementing sustainability initiatives, SMEs benefit from greater flexibility. Galli-Debicella (2021) notes that SMEs can often adapt more quickly to market changes, a factor that contributes to competitive advantage. This adaptability is particularly relevant as regulatory and client pressures increase, with upcoming requirements like CSRD reporting expected to impact SMEs starting in 2025 (KVK).

Company C describes that obtaining grants is more challenging for SMEs compared to larger corporations. Although the rules are not different, larger corporations benefit from having dedicated sustainability departments and mandatory reporting obligations, which make it easier for them to meet subsidy requirements (Heras-Saizarbitoria et al., 2021). This puts SMEs at a disadvantage despite the potential financial benefits of SE.

Larger corporations benefit from economies of scale, allowing them to purchase in bulk and reduce costs (Grant, 2016). They often have more resources and capabilities, which enable them to develop a better balance between short- and long-term goals. In contrast, while SMEs theoretically focus more heavily on short-term objectives, as noted by Garengo et al. (2005), in practice, this is not always the case. SE initiatives often have a long-term perspective, even for SMEs. Achieving an optimal balance between these goals is crucial for both larger corporates and SMEs to maximize the benefits of SE investments.

### 5.1.3 Contributions to Theory

**Integrated Sustainability Framework:** In all cases, the findings show that sustainability requires a multi-focused approach. It is not just about environmentally friendly measures, but an interplay of operational (e.g., energy reduction methods, circular business models), financial (e.g., long-term cost savings through green technologies, access to capital via sustainable investments), and strategic (e.g., developing a sustainable brand identity, aligning with market demands for eco-friendly products) aspects. This builds on existing theories on integrating sustainability into business operations and competitive strategies (R.G. Eccles et al., 2014; Kaleka and Morgan, 2017). Additionally, these findings align with Porter and Kramer's (2007) Shared Value Theory and TBL-theory of Elkington (1994), which suggests that integrating sustainability into core business strategies can drive both financial success and social impact whenever there is proper balance among the three pillars of TBL.

**Employee Well-Being as a Core Sustainability Element:** The focus on employee well-being, especially at Companies B, D and E, contributes to the theoretical understanding of the social dimension of sustainability. This is in line with Smolarek et al (2024), who establish a link between employee well-being and competitive advantage. It also shows that sustainability is not only about technological or market-oriented innovations but also about internal cultural changes within organisations.

**Economic Barriers and Long-Term Planning:** The cases provide evidence of the financial challenges SMEs face when adopting sustainability initiatives, supporting theoretical arguments from Fikus and Liszka (2024) and Lane and Rosewall (2015). The findings emphasize that these financial challenges could be hard to manage, but a better understanding of these financial challenges enables SMEs to make more informed decisions about sustainable initiatives and to plan the impact of these investments on their operations more effectively.

**Differentiation Through Sustainability:** The findings from Companies A, C, D and E reinforce the theoretical proposition that sustainability-driven differentiation is a key competitive strategy (Jaya et al., 2021). By adopting unique sustainability practices, such as building a more sustainable

infrastructure (Company A & C) or leveraging cultural values (Company D & E), they create distinctive resources that align with the principles of the Resource-Based View (RBV). This view emphasizes that firms gain a sustainable competitive advantage through unique and hard-to-imitate resources (Barney, 2004). By integrating sustainability into their core business processes, these firms enhance resource efficiency and differentiation, ultimately improving financial performance and long-term strategic positioning (Freeman & Dmytriyev, 2021). This illustrates how sustainability can be a pivotal element in differentiation strategies, further supporting the RBV's argument that valuable resources contribute to a firm's competitive advantage.

#### 5.1.4 Contributions to Practice

**Practical Models for Sustainability Implementation:** The detailed approaches of Companies A, B, C, D, and E provide actionable insights into how businesses can implement sustainability initiatives in the ATL sector. From electric vehicle infrastructure (Company A and B) to solar panel investments (Companies A, B, C, D and E) and employee well-being initiatives (Companies A, B, C, D and E), these cases serve as models for other businesses.

**Balancing Short- and Long-Term Goals:** The findings emphasize the need for businesses to manage the tension between short-term financial impacts and long-term sustainability benefits. For example, while Companies A and B experienced initial profit declines due to high investment costs, their strategies demonstrate how to achieve long-term resilience and profitability, offering a roadmap for SMEs navigating similar challenges.

**Navigating Access to Capital:** The challenges faced by Companies B and E in accessing subsidies and capital highlight the need for targeted policy interventions to support SMEs. By illustrating these barriers, the study provides practical insights for policymakers and industry stakeholders to develop more accessible funding mechanisms and reduce administrative burdens.

**Customer-Centric Sustainability:** Company E's integration of sustainability into its truck maintenance services and Company A's client-driven approach to electric vehicle infrastructure highlight the importance of aligning sustainability efforts with customer needs. These practices demonstrate how businesses can enhance customer loyalty while advancing sustainability goals.

**Employee Engagement as a Competitive Lever:** The focus on employee well-being across multiple companies shows how internal practices can translate into external benefits, such as improved customer engagement (Company D) and operational efficiency (Company B). This insight underscores the value of prioritizing human capital as part of sustainability efforts.

## 5.2 Limitations and Future Research

Several limitations emerged during this research, starting with the direction of the relationship between SE and FP. It became evident during the study that SE investments are often large-scale investments, which may pose a challenge for some organizations in fulfilling these financial commitments. This raises an interesting question for future research: does SE lead to better FP, or does strong FP facilitate better SE? This research only utilised three financial performance indicators (ROA, ROE, EBITDA), which may not fully capture the broader financial impact of SE initiatives. Future research could incorporate additional financial indicators, such as liquidity ratios or market share, which could provide a more nuanced understanding of how SE affects financial performance. Another limitation of this study is the geographical scope, as this research focused exclusively on SMEs within a single province of the Netherlands. This presents a limitation, as a broader, nationwide sample might yield different insights. Future research could expand the scope to include SMEs from various regions, thus developing a more comprehensive understanding and enhancing the generalizability of the findings. Additionally, the timeframe of this research is a limitation, as the study analysed financial performance one year before and one year after the implementation of SE initiatives. A longer-term analysis could provide a deeper understanding of the sustained impact of SE on financial performance and could also account for market growth dynamics over time. Furthermore, external factors, such as weather conditions (e.g., reduced solar power) and macroeconomic disruptions (e.g., the COVID-19 pandemic), were not accounted for in this study, which could potentially influence the results. Future research could incorporate these factors to provide a more robust analysis. During the interviews, two companies mentioned that they anticipate regulatory changes, specifically the introduction of emission zones expected in the Netherlands by 2025. Future research could explore the potential impacts of this regulatory shift on the ATL sector and examine how it might influence the adoption and effectiveness of SE initiatives.

By addressing these limitations, future studies could further enrich the understanding of the relationship between SE and financial performance, providing practical insights for SMEs operating in evolving regulatory and competitive environments.

## 6. Conclusion

The aim of this research was to contribute to existing knowledge and answer the following research question: *"How does SE influence the financial performance of SMEs operating within the Dutch automotive, transport, and logistics sector?"* To address this research question two sub-questions were formulated, with the first one: *"To what extent does sustainability engagement influence competitive advantage?"* The findings of this multiple case study indicate that sustainability engagement (SE) can provide significant benefits for the competitive position of Dutch SMEs in the automotive, transport, and logistics sectors, although the impact on financial performance varies. SE can help companies differentiate themselves in a competitive market, especially when clients or regulations impose sustainability requirements. Some companies experienced positive effects on their competitive position, while others faced negative financial trends due to large initial investments, such as in electric vehicles. This suggests that while SE can contribute to a competitive advantage, financial outcomes depend on the nature and scale of the investments. The second sub-question explored: *"How does sustainability engagement impact SMEs' access to capital?"* The study reveals that SE does not directly lead to improved financing opportunities for SMEs, although some companies reported more favourable conditions, such as lower interest rates, due to SE. However, this was not the case for all companies and appears to be more related to the financial health of the firm than the level of sustainability engagement. Subsidies for sustainable investments do offer opportunities, but the strict conditions make obtaining these subsidies challenging for SMEs. Concerning the short-term effects of SE investments, the findings confirm that while the initial costs for sustainability investments are often substantial, they do not have a major impact on profitability, primarily because the long-term benefits often outweigh these initial costs. Moreover, some companies, despite the short-term costs, experienced a rise in profitability, suggesting that SE investments do not necessarily undermine short-term financial performance, as long as efficiency gains are achieved. Overall, this study underscores that the relationship between SE and financial performance is complex, with the benefits of SE often manifesting only in the long term, depending on the nature of the investment and market conditions. SE is a complex concept that many SMEs find difficult to fully comprehend or systematically implement. Most SMEs do not have dedicated departments or resources for sustainability efforts, often treating such activities as supplementary rather than integral.

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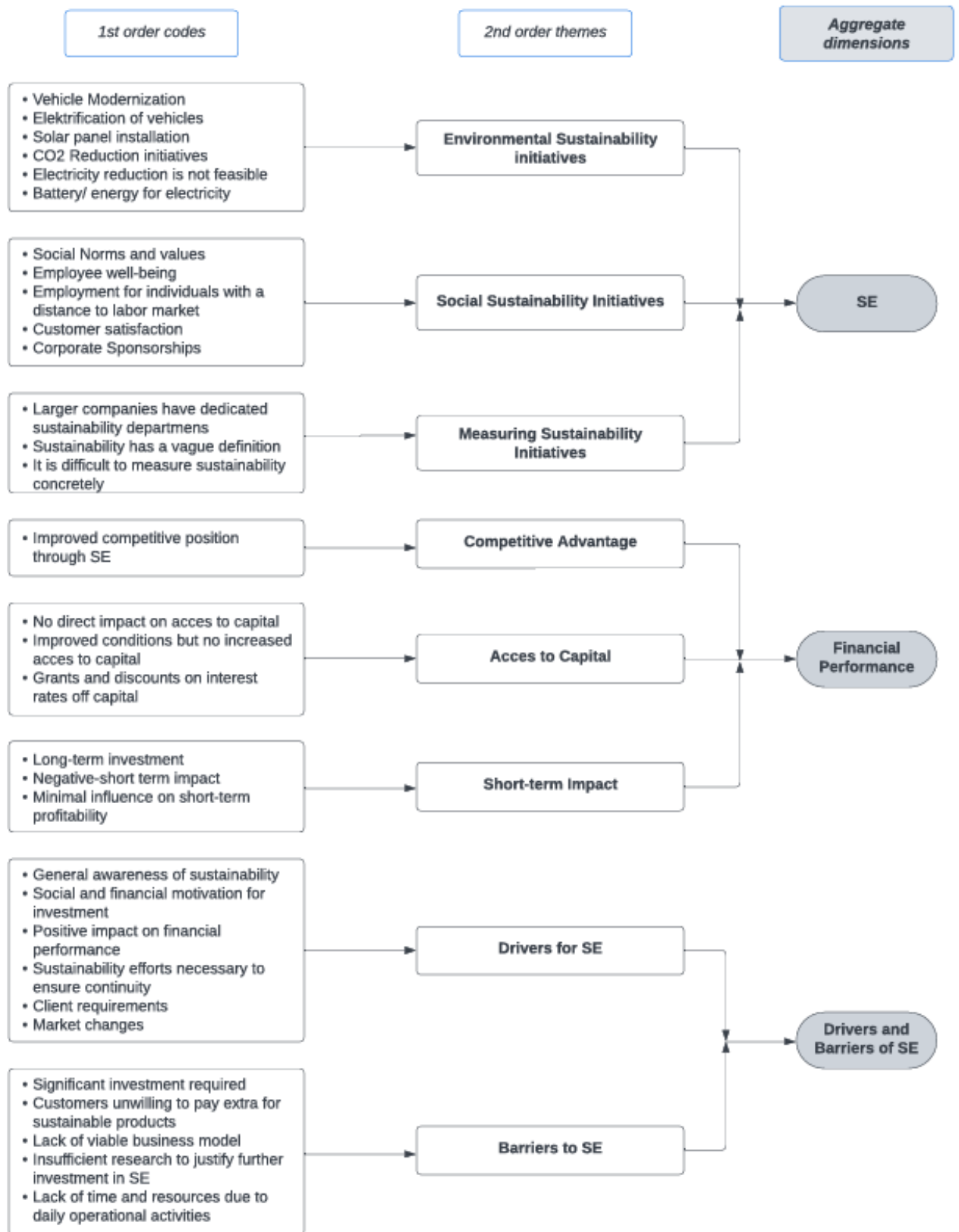
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## 8. Appendices

### Appendix 1:





## Appendix 2:

### *Semi-structured interview guide*

#### **Introduction yourself:**

1. Who am I?
2. What is this research?
3. What is it going to be used for?

#### **Introduction interviewee:**

1. Can you briefly describe this company and its primary activities?
2. How many employees does this firm have?
3. How long has your company been operating in this sector?
4. What is your current role and how did you manage to get into this role?

#### **Environmental Sustainability Engagement: (Explanation is provided if needed)**

1. Has your company implemented sustainability initiatives related to the environment?
  - a. If so, could you describe them?
  - b. Why did you consider the investment necessary?
2. When did your company start implementing environmental sustainability initiatives?
3. How do you measure environmental sustainability within your company (e.g., energy savings, emissions reduction, efficient resource use)?
  - a. What changes have these initiatives brought about?
4. What are the reasons for not engaging in environmental sustainability practices or initiatives?

#### **Social Sustainability Engagement: (Explanation is provided if needed)**

1. Has your company implemented sustainability initiatives focused on social aspects?
  - a. If so, could you describe them?
  - b. Why did you consider the investment necessary?
2. When did your company start implementing social sustainability initiatives?
3. How do you measure social sustainability within your company (e.g., good working conditions, education programs, strong team dynamics)?
  - a. What changes have these initiatives brought about?
4. What are the reasons for not engaging in social sustainability practices or initiatives?

#### **Additional insights:**

1. Sustainability encompasses three dimensions: economic, environmental, and social. Could you rank these in order of importance for your company, with the most important first?
  - a. Why did you choose this order?
2. Reflecting on your experience, how would you summarize the overall impact of sustainability on financial performance?
3. Do you think sustainability efforts have created more opportunities or challenges for your company?
  - a. How would you rate your company's competitive advantage in the market compared to key competitors before implementing sustainability initiatives? (Scale of 1 to 10, where 1 is very weak and 10 is very strong).

- b. Has your company's competitive advantage improved since adopting sustainability initiatives? If yes, how would you now rate your competitive position compared to key competitors? (Scale of 1 to 10, where 1 is very weak and 10 is very strong).
  - c. How easily did your company access external financing (loans, investments, etc.) before investing in sustainability?
  - d. Has your company's access to external financing improved after investing in sustainability? If so, can you explain how?
- 4. What has been the short-term impact of sustainability investments on your profitability?
  - 5. What sustainability initiatives would you still like to pursue?
    - a. Why haven't these been implemented yet?
  - 6. Have there been any significant non-sustainability-related investments that have impacted your company's financial performance?
  - 7. Are there any additional insights or experiences you would like to share about sustainability and its impact on your company?