

# Corporate Social Responsibility, Sustainability & Social Innovation: a study on Dutch small and medium-sized construction enterprises

*“How can commitment to Corporate Social Responsibility and sustainability influence social innovation in small and medium-sized enterprises in the Dutch construction sector?”*

*“What are the barriers for small and medium-sized enterprises in the Dutch construction sector to commit to Corporate Social Responsibility and sustainability that lead to social innovative activities?”*

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## Abstract

Studies on SMEs in the Dutch construction sector on CSR and innovation practices state that research is lacking, because the focus is on larger firms. Therefore, this study aims to investigate the CSR commitment of SMEs in this sector, how this commitment influences social innovation, and what the barriers are to actually work on both principles. A qualitative study research using semi-structured interviews was performed, where six Dutch SMEs were interviewed to gain in-depth insights into the subject. After the interviews, the most important and useful findings were described and analysed across the different enterprises to find similarities and differences among them, and between the interviews and the literature. The findings indicate that the commitment towards CSR influences social innovation in such a way that the focus, investments, and motivation that are being put into the activities regarding CSR eventually increase the need and drive to work on social innovation activities. There were some contradictive views among the different enterprises that were interviewed, which led to some barriers that mostly small enterprises in the construction sector have to overcome in order to work on CSR and social innovation. Making people aware of potential solutions regarding CSR and social innovations could open the eyes of people or enterprises that only see the barriers, which could be seen as an important tip for future research and practical use. A limitation of the research is that the data can not be generalized because the small sample of six interviews, plus the interviews could lead to biased results because of interpretation of both the interviewee and the interviewer. After all, this study offers insights on how future research could examine how to gain knowledge about the concepts of this study and how to create awareness within a company, which eventually leads to a better and future-proof enterprise.

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## 1. Introduction

In today's economy the subject of social innovation (SI) is an important field for firms. Social innovation is said to induce social change, inventing new alternative for social interactions and practices (Howaldt & Schwarz, 2016). Corporate social responsibility (CSR) is an important concept that is intertwined with the concept of social innovation (Dionisio & de Vargas, 2020). Mirvis and Googins (2017) state that social innovation developed over the past two decades, building on the traditional CSR activities in ways that embed social impact more directly in corporate strategies, activities, and partnerships.

According to the European Commission (2001), most definitions describe CSR as a concept whereby firms voluntarily integrate social and environmental concerns in their business operations and in their interaction with their stakeholders, where stakeholder satisfaction is a vital part of the concept and practice of CSR (Albasu & Nyameh, 2017). Stakeholders are defined here as any group or individual who can affect or is affected by the achievement of a corporation's purpose (Freeman, 2004). The word 'voluntary' is missing in today's definitions of CSR. It is not only a moral imperative anymore for firms but, increasingly, a business imperative which consumers reward socially responsible firms by engaging in a host of pro-firm behaviours like loyalty, purchase and/or advocacy (Baskentli, Sen, Du, & Bhattacharya, 2019).

There is a broad consensus that SMEs are an important economic force, and therefore the outcomes of CSR in SMEs merit investigation (Morsing & Perrini, 2009). These types of firms are seen as a key element in achieving growth and employment targets, with approximately 26 million SMEs operating within the EU providing employment for 109 million people and constitute 2/3 of the European Gross National Product (Erdin & Ozkaya, 2020). The importance of SMEs as an employment generator is also highlighted by OECD, whereas Haltiwanger, Jarmin, and Miranda (2012) and Lawless (2014) show that young and small enterprises are significant creators of employment. Because of these developments, the attention and government actions to promote CSR has focuses less and not solely on large firms and begun to concentrate more on small and medium-sized enterprises (SMEs) (Morsing & Perrini, 2009). Since these pressures increase more and more, the SMEs feel more committed to CSR. This could explain why the promoting of CSR shifts from focusing on large firms only, towards more focus on SMEs.

Nowadays, the construction sector is prominent in environmental issues, looking at the vast amount of energy and natural resources used (Yilmaz & Bakis, 2015). According to Vasilca et al. (2021) the industry is deemed one of the major sources of environmental damage in the world. The construction process is not environmentally friendly by its nature, starting from supply of materials, continuing with the resources that are consumed and ending with the overall effects on the surrounding environment (Vasilca, et al., 2021). Furthermore, buildings affect air quality and water resources in cities by using 45% of world energy and 50% of water (Vyas, Ahmed & Parashar, 2014; Dixon, 2010). Dixon (2010) also identified environmental effects which stated that buildings cause 23% of air pollution, between 50% and 40% of water pollution, and lastly 40% of solid waste in cities. To minimize and reduce these impacts, the industry has been seeking to introduce CSR practices throughout its entire production chain, also focusing on sustainability (Lima et al., 2021; Xia et al, 2018).

Sarkar and Searcy (2016) argue that sustainability and CSR focus both on the responsibility and voluntariness of firms to behave ethically in the activities that they perform. Both subjects emphasise putting pressure on businesses to act towards their business environment and the society, which has led to increased emphasis on SI because it is linked to CSR and sustainability and has become a growing agenda in the construction sector in recent years, mainly for two reasons. On the one hand, the construction sector is intrinsically 'irresponsible' with the excessive use of resources and energy mentioned above (Lu, Ye, Flanagan, & Ye, 2015). Additionally, construction work is usually labour intensive with high exposure to accidents, making it less healthy and safe for employees (Jiang & Wong, 2016). On the other hand, the industry is socially responsible as it materialises the environment through the creation of a wide variety of buildings, plants and other infrastructures which are instrumental to the health, economic, social, and cultural aspects of humanity (Xiong, Skitmore, Chau, & Ye, 2015).

Previous studies on SMEs in the construction sector on CSR and innovation practices state that research is lacking (Spence, 2016; Bahta, Yun, Islam, & Ashfaq, 2020; Bocquet, Le Bas, Mothe, & Poussing, 2019). Currently, the focus is on larger firms. Thus, this study aims to investigate the CSR commitment within SMEs in the Dutch construction sector and how this commitment can influence social innovation. Next to this, the barriers to work on these concepts will be elaborated. Because, as Szegedi, Fülöp, and Bereczk (2016) stated, the business model of firms that focus on CSR and social innovation are characterised by unique strategies that are not aimed on maximizing profits, but rather carrying out goals for the benefit of society. To gain more insights and understanding on this topic, two research questions are being formulated:

Research Question 1: *How can commitment to CSR and sustainability influence social innovation in small and medium-sized Dutch construction firms?*

Research Question 2: *What are the barriers for small and medium-sized enterprises in the Dutch construction sector to commit to Corporate Social Responsibility and sustainability that lead to social innovative activities?*

The overarching goal is to provide insights into whether SMEs in the Dutch construction sector commit to CSR and sustainability and the influence of these principles on social innovation. Furthermore, the barriers for this commitment will be elaborated through a second research question. To answer the research questions, a literature review will be conducted to shed light on the status of construction firms and their activities on CSR, sustainability, social innovation, and the stakeholder theory. After this, a qualitative study on Dutch SMEs in the construction sector will be examined using semi-structured interviews. The results of the interviews add to the existing literature on SMEs regarding the topics of CSR and SI in the Dutch construction industry, plus the practical relevance that contains a better understanding of CSR and SI engagement which eventually could lead to necessary improvements (Morsing & Perrini, 2009).

The structure of this research will be as follows: the literature review focuses on a review and description of CSR, sustainability, social innovation, the stakeholder theory, and the Dutch construction sector. Next, the research objective will be elaborated further, after which the research methodology will be explained. This part expands on why a study on the Dutch construction sector using interviews was chosen. The study findings are being described, after which a discussion could be created upon the interview data. The research will end with the conclusions and answers to the research questions, plus the limitations and recommendations for further research.

## 2. Literature Review

As said, this study focuses on CSR, sustainability, and social innovation in the Dutch construction sector, specified on SMEs. The Dutch construction sector wishes, together with the government, to develop a vision on these different concepts to create a high-quality circular economy (Schut, Crielaard, & Mesman, 2016). The National Institute for Public Health and the Environment (RIVM) and Rijkswaterstaat for the Ministry of Infrastructure and the Environment (IenM), together with different stakeholders in the construction sector showed the wishes. These will be elaborated in the following paragraphs, together with a focus on the different concepts and stakeholders.

### 2.1. The Dutch construction sector

The built environment exists of many interconnected and interdependent systems and is hugely complex, and the Dutch construction sector in specific covers a wide range of actors like investors, clients, contractors, architects, producers, building workers, suppliers, and asset holders (Scheuer, 2019). The sector thus consists of many players and relationships that are characterized by both conservativeness and competitiveness, inherent to established formal and informal institutions that influence decision making and consequently influence the extent to which sustainable or innovative practices are adopted (Scheuer, 2019). The construction industry namely has a high resource intensity, with a primary material consumption of between 1.2 and 1.8 million tons annually in Europe (Yu, Yazan, Bhochhibhoya, & Volker, 2021). In the Netherlands, the construction industry accounted for around 50% of the total material consumption (Rijkswaterstaat, 2016). In the meantime, construction, and demolition waste (CDW) generated in the Dutch construction sector is around 46% of the total amount of waste.

During the last years, many developments in the construction sector are going on about building responsibly and making them future proof. The developments aim to adapt these building constructs into a sustainable way that can respond to the changing user needs that will arise over time (Brilman, 2013). In 2015, the Paris Agreement was signed, and the Dutch government worked on their strategy to meet the goals that were set in this agreement. This led to the development of the Climate Agreement (Klimaatakkoord) that was made definitive in June 2019 (Rijksoverheid, 2019). The national reduction target of greenhouse gas emissions is 49% by 2030, mainly focusing on the reduction of 3,4 Megaton of carbon dioxide emission. To achieve this, different targets have been set by the government for different sectors in the Dutch society. For the construction sector, which is considered to have the greatest potential in the clean energy transition, this implicates that about 1.5 million existing homes need to be renovated already, and about 1 million extra Megaton of carbon dioxide has to be reduced in the non-residential sector (Ministry of Economic Affairs and Climate, 2019).

Furthermore, the government acted on the goals of building responsibly and future proof over the past years by introducing new regulations and legislation, such as minimum energy label C for office buildings, new-built houses have to be off the gas-grid from 2020 on, and all new-built residential and non-residential buildings have to be in line with the Nearly-Zero Energy requirements (D'Agostino, 2015). The Dutch government does stimulate innovations towards these goals with financial packages, but there are no prescriptions for the construction industry on how to become fully circular or at least more energy effective by 2050, only that they must be it by 2050. These financial packages to stimulate the Dutch construction sector towards a more circular economy require the industry to be proactive (Troost, 2020), and even without prescriptions put tremendous pressures on the construction industrial actors.

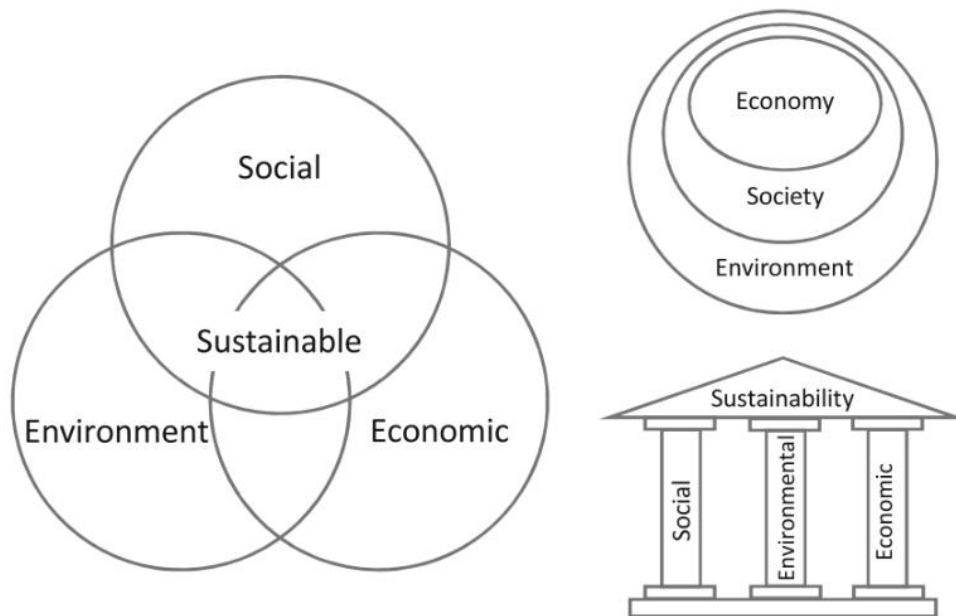
## 2.2. Sustainability & CSR

CSR has been in the focus for several decades, making it a natural object of reflection and review, with a growing literature on the long-term transformations of the concept (Aslaksen, Hildebrandt, & Johnsen, 2021). Diverging opinions create arguments that CSR should shift its focus to a stronger emphasis on sustainability (Carroll, 2021; Rank & Contreras, 2021; Windsor, 2021), with today's firms being conceived as the vehicles for change. In this chapter, the concepts of sustainability, CSR, and how these concepts work within the Dutch construction industry will be elaborated.

### 2.2.1. Definition of sustainability

As the world urbanizes, achieving sustainability in cities is quickly becoming a global issue (Wu, 2014). While cities can be centres of innovation and collaboration, the ecological footprint extends far beyond the urban centres' physical boundaries, and socio-economic disparities exist within and between cities (Keivani, 2010). Because of this, scholars and practitioners seek to gain insight into how the implementation of sustainable practices can lead to less impact from cities on the planet while improving the quality of life for all people today and in the future.

Most studies on sustainability do not include an explicit definition of sustainability (Stirman, et al., 2012). At the level of the dictionary definition, sustainability simply implies that a given activity or action is capable of being sustained. The main idea and academic definition of sustainability within the construction sector is to concentrate on environmental conditions to achieve a designed product with maximum internal attributes of environment so that it can minimize the undesirable aspects of these constructions. Buildings should be able to reply to the environment from design stage and settling when they are to decrease confrontations with nature (Zabihi & Habib, 2012).



*Figure 1: three different interconnections between sustainability, society, environment, and economy (Purvis, Mao, & Robinson, 2019)*

One particularly prevalent description of sustainability employs the three interconnected pillars or circles that can be found in Figure 1. Many studies referred to these pillars in different contexts as 'the three-legged stool', 'the triple bottom line', the 3 E's (economy, ecology, equity), or the 3 P's (prosperity, planet, people), which imply that solving the world's most complex dilemmas entail shifts in familiar concepts rather than (re)building from scratch (Boyer, Peterson, Arora, & Caldwell, 2016).



#### *2.2.1.1. Triple Bottom Line*

Since the responsibility of a business is not just about generating economic profit (profit), but also about caring for society as a whole (people) and the environment (planet), the Triple Bottom Line (TBL) was discovered by J. Elkington (1994). This framework for measuring performance went beyond the traditional measure of profit and return on owner value about environmental and social dimensions (Rajnoha, Lesnikova, & Krajcik, 2017). Only if a firm cares for all three aspects of the TBL it can be called sustainable because all of them are closely related (KsiężaK & Fischbach, 2017).

##### *Profits*

The first aspect, profit, is a mandatory requirement, thanks to which a firm has a possibility to develop. It emphasizes sustainably managing economic capital (Dyllick & Hockerts, 2002). Socially responsible enterprises in the long term can be profitable and save costs. The way of managing finances sustainably is more than just the ability to overcome potential risks, but also the capacity to make decisions that do not compromise future generations. The main aim is to have or make financial information available about the coming years, instead of focusing on current numbers (Bolivar, 2017). Uddin, Hassan and Tarique (2008) process the dimension of profit in three aspects.

The first one is the multiplier effect that considers the impact the business has on its stakeholders, therefore local communities, employees, NGOs, customers and suppliers. The higher the economic performance, the higher the salaries. And at the same time, bigger profits allow to put more money into socially responsible activities. In the end, higher profits of the firm appears to benefit everyone in the community.

The second aspect of the economic dimension is tax. The higher the profits, the more tax is paid to the government which it can spend on its people, helping society with the issues that need it most. Uddin et al. (2008) see the taxes not as costs, but as a part of CSR's contribution to society. This means the avoidance of taxes gives people the idea that the firm does not want to share the success with society.

Thirdly, economic responsibility is evading any activity that abuses trust. Once the reputation of a firm is shattered it is very difficult to reclaim. Managers these days need to move beyond technical and economic efficiency (profit maximization) to better address social responsibility, which requires again not only technical efficiency and profitability, but also environmental responsibility and improvement in the quality of life (McWilliams, Parhankangas, Coupet, Welch, & Barnum, 2016). Firms need to inspire this to gain trust and be dependable to secure good relationships with customers, business partners and other stakeholders. This allows firms to escalate their obligations towards shareholders whose gains are being enhanced as well as the rise of satisfaction of other stakeholders (KsiężaK & Fischbach, 2017).

##### *People*

People are the lifeblood of the firm (KsiężaK & Fischbach, 2017). These involve the employees, the customers and the participants of the supply chain. Firms more and more take the direction towards social progress (Muthu, 2017). No firm can renounce the daily lives of society and still perform, which makes it that economic expansion must go conjointly with social development (Porter & Kramer, 2006). This aspect emphasises the ensurement of a fair society which means that firms should add value to communities in which they operate. This could be done by focusing on human capital (skills, motivation and loyalty) and/or societal capital (quality of public services like education or infrastructure) as mentioned by Dyllick and Hockerts (2002).

##### *Planet*

The last element is the planet, which is the habitat for a firm and the people. Irresponsible usage of natural resources, producing waste or emission of polluting by-products are the negative impacts of firms on the environment. Therefore, the least those firms can do is to minimise or eliminate the detrimental environmental impact (Gupta, 2011). The earth has no infinite amount of supply and can not deliver endlessly. Dyllick and Hockerts (2002) distinguish between two types of natural capital: renewable resources (such as wood) and non-renewable resources (such as oil). Both can not be used infinitely. The consequence for a firm is then to consider this aspect of sustainability.



### 2.2.2. Sustainability in the construction sector

Sustainability is an important topic in the construction sector with an energy consumption that accounts for 40% of the energy usage worldwide (Iqbal, Ma, Ahmad, Hussain, & Usmani, 2021).

The huge amount of waste generated in the Dutch construction sector offers new business opportunities for the industry towards Circular Economy (CE) principles (De Brito & Saikia, 2013). CE provides these opportunities by changing the traditional linear material usage pattern to a more sustainable, efficient, and circular one. This material usage is about reducing, reusing, and recycling, while at the same time benefit the society on both economic and environmental level without the extraction of primary natural resources (Geissdoerfer, Savaget, Bocken, & Hultink, 2017; Ghisellini, Ripa, & Ulgiati, 2018).

However, sustainable developments are not being implemented by all firms in the construction sector (Balasubramanian & Janya, 2020). This is not because of the technology, but mainly because of organizational and procedural difficulties in adopting it, because of the needed changes in working and the (unforeseen) costs that may prevent firms from adopting (Häkkinen & Belloni, 2011; Iqbal, Ma, Ahmad, Hussain, & Usmani, 2021). Pitt, Tucker, Riley, and Longden (2009) mentioned the following barriers for SMEs regarding the commitment towards sustainability: affordability, regulations, lack of client awareness, lack of understanding (Shareef, Arunachalam, Sodique, & Davey, 2014), lack of demand, lack of measurement methods, lack of technologies, and lack of planning policies which implies the misfit in the intended schedules.

On the other hand, Pitt et al. (2009) identified the drivers of commitment towards sustainability which are client awareness, regulations, demand, financial incentives, investment in solutions, labelling, and planning policies regarding future wishes. Iqbal et al. (2021) added some main drivers to this research which are as follows: new possible employment opportunities through economic development, saving raw materials, lower costs, create competitive advantage, and reduce carbon emissions. These drivers are also pointing towards CE principles that focus on the regenerative system that again minimizes the consumption of raw materials, waste, emissions and energy, which is done by slowing down, closing and reducing the material and energy loop (Geissdoerfer et al. 2017).

### 2.2.3. Definition of Corporate Social Responsibility

Due to trends such as greenhouse gasses, water pollution and other environmental issues, the interest in CSR started to grow rapidly (Sarkar & Searcy, 2016). Climate change challenges put pressure on firms, communities, and citizens to redefine their current views on CSR as necessary (Allen & Craig, 2016). This created CSR as having multiple definitions. The World Business Council for Sustainable Development (WBCSD) defined CSR as the continuing commitment by business to behave ethically and contribute to sustainable economic development while improving the quality of life of the workforce and their families as well as of the local community and society on a voluntary basis (Sheehy, 2015). Where the word voluntary was applying years ago, the word is missing in today's definitions. With the focus on the construction industry, this study describes the concept of CSR as that in the conduct of business, there is an implied agreement between businesses and society which represents the expectation of society from businesses to operate in a particular manner that protects the long-term interests of society instead of chasing after immediate profits (Olanipekun, Oshodi, Darko, & Omotayo, 2020).

CSR guides firms to pursue policies and decisions that are likely to bring benefits to society and the environment at least partially beyond the firm's direct economic or technical interests (Sigurdsson & Candi, 2020). It concerns the obligation of business firms, and the activities have been used to address consumer's social concerns, create a favourable corporate image, and develop positive relationships with stakeholders (Yoon, Gürhan-Canli, & Schwarz, 2006). When performed successfully and looked at strategically, CSR can become an important source of social progress and benefit both the firm and society. According to El-Kassar, Messarra and El-Khalil (2017), people are more inclined to work for a firm that acts responsibly towards its community. However, convincing employees that the firm is serious about CSR is not that easy. The crux of this problem can go to the abstractness of the word 'social' and its links to daily production activities, which makes the process of determining CSR activities and creating awareness among employees time-consuming (Crocker, 2013).

#### 2.2.4. CSR in the Dutch construction sector

CSR is growing prominence in the construction sector. As was already mentioned, there are two reasons for this growing attention: the construction sector is on the one hand socially responsible as a material-intensive and labour-intensive industry (Lu, Ye, Flanagan, & Ye, 2015). The activities use resources and energy to materialize the built environment throughout the whole lifecycle. Next to this, the industry is a significant economic contributor being a huge workforce provider and influences various aspects of social well-being such as health and cultural activities. At the same time and on the other hand the industry is irresponsible (Xia, Olanipekun, Chen, Xie, & Liu, 2018) with the excessive use of resources and energy in activities that lead to physical environmental degradations and destruction. Petrovic-Lazarevic (2008) identified that CSR in construction – also called CSR-C – contains the moral obligation of attaining good levels of citizenship, sustainability, reputation, relationships with employees and unions, relationships with suppliers and community representatives, and commitment to CSR reporting.

Despite the availability of CSR standards and guidelines, a pressing problem with CSR fulfilment in SMEs in the construction sector is to make right decisions and to do right things (Jiang & Wong, 2016). Increasing publications of research works over recent years evidenced that CSR in the construction management attracted closer attention (Shen, Tam, Tam, & Ji, 2010; Tam, Shen, Yau, & Tam, 2007; Croker, 2013; Jiang & Wong, 2016). Construction firms have most interest in environment, health and safety, human resources, supply chain management, customers and communities, and governance and ethics (Jiang & Wong, 2016). To stay competitive, these firms not only need to have more competence in reacting to clients' concerns, but also be able to align with social expectations or requirements in maintaining a good socially responsible image. Santos (2011) examined the benefits that drive SMEs towards CSR which are 'better reputation', 'higher employee motivation', 'raising quality' and 'better productivity'. However, it is assumed that SMEs lack the financial resources to successfully address CSR challenges given their size and market failures (Mahmood, et al., 2021).

### 2.3. Social Innovation

Since Schumpeter, the concept of innovation has focused predominantly on economic and technical developments, whereas social sciences were particularly interested in the corresponding social processes and effects (Howaldt, Domanski, & Kaletka, 2016). Meanwhile, the importance of social innovation successfully addressing social, economic, political, and environmental challenges of the 21<sup>st</sup> century has been recognized not only within the Europe 2020 strategy, but also on a global scale. SMEs approach social innovation to create new products and services that address challenging issues like income provision, or empowerment of vulnerable groups by generating rich and diverse employment opportunities. In the following chapter, the concept of social innovation, and again the role of the concept in the Dutch construction industry will be elaborated.

#### 2.3.1. Definition of Social Innovation

The clear definition of social innovation is still poorly defined in the literature (Cajaiba-Santana, 2014; Sigurdsson & Candi, 2020). Though, the concept of social innovation is among the most discussed in the field of innovation in the last years (Canestrino, Bonfanti, & Oliace, 2015), and gained scholarly interest as it could be seen as a potential solution to addressing social needs that may not have been filled by existing players. There are many fields where particularly severe innovation deficits are present. These are gaps between what people need and what they are offered. The answers to overcome the gaps become social innovations which are solutions for the interest of society (Mulgan, Tucker, Ali, & Sanders, 2007). Social innovations are new ideas, institutions, or ways of working that meet social needs more effectively than existing approaches (Harazin & Kósi, 2013). Pol and Ville (2009) collected many of the definitions of social innovation and termed innovation a social innovation if the implied new idea has the potential to improve either the quality or the quantity of life.

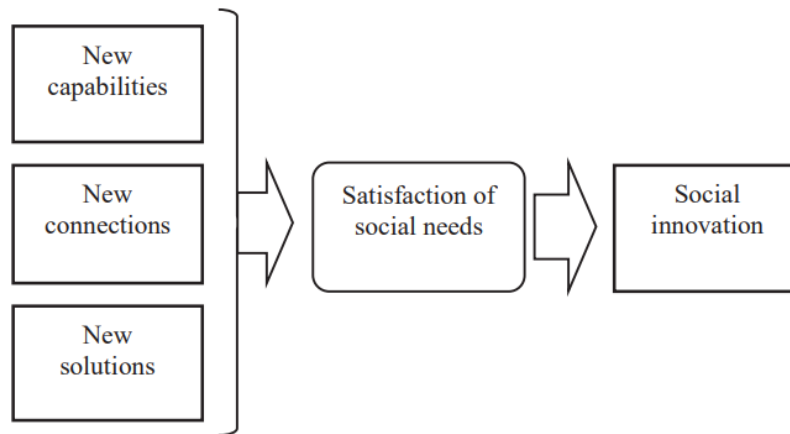


Figure 2: Model of Social Innovation (Szegedi, Fülöp, & Bereczk, 2016).

### 2.3.2. Social Innovation in the Dutch construction sector

The literature on social innovation with the Dutch construction sector is scarce. In 2017, the University of Twente did research on innovation in the construction industry together with the “Economisch Instituut voor de Bouw” (Economic Institute for Construction). In this research first the obstacles for innovation were identified, after which possible solutions were made up. Within the SMEs in the Dutch construction sector, the main barriers for social innovation are the financial infrastructure that limits the systematic investments into knowledge building and knowledge sharing (Arnoldussen, Groot, Halman, & van Zwet, 2017). A possible step in the direction of social innovation in the Dutch construction sector is active innovation management where innovation gets a central place within the business. Optimising the organizational structure to stimulate social innovation, a facilitating staff policy focused on the strength of innovation, and professionalisation of firms positively contribute to innovation management (Arnoldussen, Groot, Halman, & van Zwet, 2017). Historical research points out that construction firms that are not working actively on innovations are condemned to retardation, and the competitiveness depends on its ability to innovate and improve (Porter, Serpell, & Alvarez, 2014).

### 2.4. Corporate Social Responsibility, Social Innovation, and sustainability

Due to the changing values of society and the responsive innovations towards shareholders, innovation and CSR should go hand in hand to guarantee sustainable development of businesses and society (Sánchez-Hernández, Gallardo-Vázquez, Dziwinski, & Barcik, 2019). Garcia-Piqueres and Garcia-Ramos, 2020 identified that CSR can play an important role in contributing to sustainable developments while enhancing firms’ social innovation. Another study on 19 firms by CSR Europe indicated however that there remains a weak correlation between the innovation of products and services and CSR in firms. This study highlighted that CSR departments have more contacts with HR and PR than with the R&D, innovation, sales, and marketing departments. In Figure 3, it is shown that most firms today do not necessarily point to the drive towards the innovation of new products and services.

Studies on how firms compete in today’s rapid changing markets and environments while contributing to sustainable development suggest one important way for firms to enhance CSR and social innovation, namely sustainability-driven innovation practices (Schaltegger, 2011). Drivers could be external such as pressure from outside groups or regulations, or internal such as institutional entrepreneurs or improving operational efficiency (Grewatsch & Kleindienst, 2017). Though both concepts focus on sustainable or social developments, social innovation differs from CSR in several aspects (Mirvis, Googins, & Kiser, 2012). Firstly, traditional CSR programs result from a philanthropic intent, whereas social innovation represents a strategic investment that firms manage like other corporate investments. Next to this, CSR programs involve contributions of money and manpower, where social innovation engages a firm in societally relevant research and development and applies the full range of assets to the challenges that are at stake.

Thirdly, CSR programs often involve nongovernmental firms or community groups to deliver services, while social innovation usually involves collaborations across functions within the firm and with external parties to co-create something new that provides a sustainable solution to social issues. The last difference is that CSR can generate goodwill and better the corporate reputation, where social innovation also aims to produce new sources of revenue and to generate a more socially relevant innovation system and culture that can be a source of competitive advantage (Mirvis, Googins, & Kiser, 2012; Mirvis, Herrera, Googins, & Albareda, 2016).

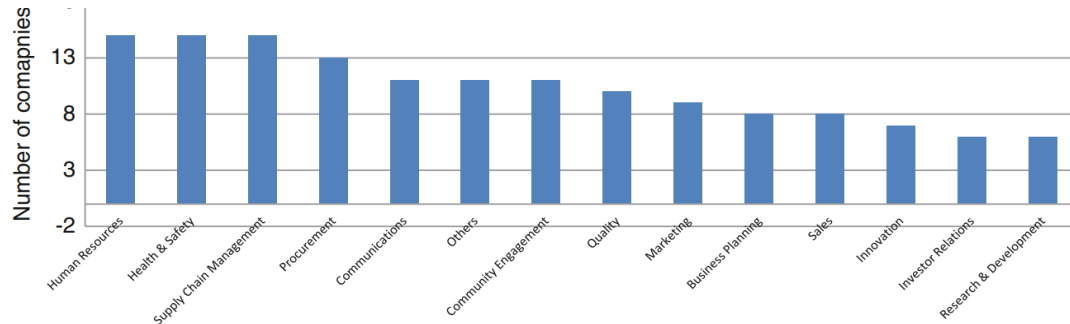


Figure 3: Which internal divisions are involved in the ongoing monitoring of sustainability targets/measurements? (CSR Europe, 2012)

## 2.5. Stakeholder theory

Freeman (2004) defined stakeholders as any group or individual who can affect or is affected by the achievement of a corporation's purpose. The stakeholder theory argues that an enterprise needs to consider all of its stakeholders (Berg, et al., 2018). As defined and explained by Freeman, the theory is a dominant paradigm at the core of CSR, and this thinking challenges firms to develop socially responsible agendas to meet stakeholder expectations (Sigurdsson & Candi, 2020). Thereby, firms often implement socially responsible activities in order to reduce risks that could be associated with their stakeholders. This is in line with the definition of social responsibility which ensures business profitability and benefits society simultaneously (Hopkins, 2012).

Behaviour that applies to a firm's activities regarding CSR, social innovation and sustainability is not only influenced by powerful inside stakeholders, but also by stakeholders outside the firm (Martinez, Fernandez, & Fernandez, 2016). These inside and outside stakeholders could be divided into primary and secondary stakeholders, where the primary ones directly influence the firm and are important for survival (for example employees). Secondary stakeholders can influence the firms indirectly by conveying information (for example media). They can influence public opinion about the firm which can enhance or destroy a firm's reputation (Helmig, Spraul, & Ingenhoff, 2016).

Focusing on the construction sector and mainly on project planning within this sector, it has focussed on the process of planning, and managing the complex array of activities required to deliver a construction project. Managing stakeholders is thus a critical skill in this industry, and successful completion of the projects is dependent on meeting the expectation of stakeholders throughout the project life cycle, including clients, project managers, designers, subcontractors, suppliers, funding bodies, users, owners, employees, and local communities (Atkin & Skitmore, 2008). Furthermore, there has been a strong emphasis on the internal stakeholder relationship such as procurement and site management, while the external relationships to some extents have been considered a task for public officials via the rules and legislation that concern facility development (Atkin & Skitmore, 2008).

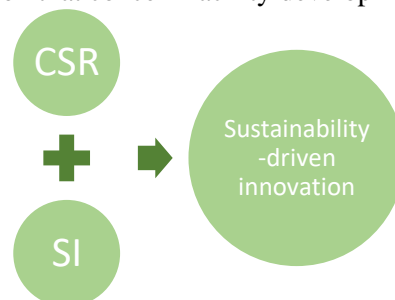


Figure 4: Conceptual framework

### 3. Research Methodology

This methodological chapter elaborates on the research method using different subsections on the objective of the research, the type of research, how the data is collected, how the sample is being created and how the data is being analysed afterwards.

#### 3.1. Research objective

The objective of this thesis is to gain insight into firms' commitment towards CSR and sustainability, and how the commitment influences social innovation within SMEs in the Dutch construction sector. The study will focus on the stakeholder theory. This theory is concerned with the relationship between a firm and its stakeholders (Fernando & Lawrence, 2014). In this study the firms that will be focused on in this research are all within the same industry (construction) and some even are each other's stakeholders. A qualitative study is chosen because this type of research explores and provides in-depth insights into a certain problem or question (Tenny, Brannan, Brannan, & Sharts-Hopko, 2021). Instead of collecting numerical data, qualitative research gathers participants' experiences, perceptions, and/or behaviour. A strength is its ability to explain processes and patterns of human behaviour that can be difficult to quantify (Foley & Timonen, 2015). Moreover, Lozano and Murillo (2006) mentioned that qualitative research is most appropriate for a study on CSR. Figure 5 shows the methodological process for this research.



Figure 5: Methodology Process



### 3.2. Data collection

The research will focus on multiple cases to make the results more reliable and robust (Baxter & Jack, 2008). The more cases that can be researched to establish or develop a theory, the more robust the outcomes are, which leads to the question of how many cases should be included to reach saturation (Rowley, 2002). Regarding data saturation, there is no one size fits all when talking about the minimum number of interviews that should be conducted (Fusch & Ness, 2015). Studies noted that data saturation may be attained by as little as six interviews already (Guest, Bunce, & Johnson, 2006). For this study it was at first chosen to contact 10 firms personally to conduct an interview, and some firms were contacted via email because of distances and time frames which eventually led to six interviews with small or medium sized construction firms located in the Netherlands. Five of the six interviews were conducted online at the different offices of the interviewed companies. Because of distance and time, one interview was conducted online. Before starting the interviews, the ethical considerations and an introduction about the research is being elaborated. The sampling method will elaborate on why 6 interviews were conducted and who were contacted and why.

The interviews have a semi-structured format, which employs a blend of closed- and open-ended questions and often followed-up why or how questions (Adams, 2015). The questions are determined before the interview and formulated using the interview guide. This interview guide covers the main topics of the study and for the discussion but should not be followed strictly. Instead, it provides the participants guidance on what to talk about (Gill, Stewart, Treasure, & Chadwick, 2008). The interviews start with a short introduction about the person that is interviewed and the firm that this person is representing. The interview guide including the transcripts can be found in Appendix A.

### 3.3. Sampling method

The most used qualitative sampling techniques consist of three categories: convenience, purposeful, and theoretical. The last one is a technique in which the criteria for sampling emerge along with the study itself (Higginbottom, 2004). This is why it is chosen to focus on the first two techniques, because the criteria for sampling are clear for this study: Dutch SMEs in the construction sector, for which the recommendations of the European Commission will be used to define SMEs: all businesses with less than 250 employees and an annual turnover of 50 million euros or less are regarded as either small or medium firms (European Commission, 2021).

Convenience sampling could be defined as searching for participants who are readily available and easy to contact (Higginbottom, 2004). After the convenience sampling, purposeful sampling will be performed to reach out to potential interviewees that were less easy to contact. This means that the researcher is looking for participants, or in this study businesses who possess certain traits or qualities (Coyne, 1997). Potential interviewees or firms were selected via the network of the author, and next to these 10 construction firms out of the “KVK Innovatie Top 100 2021” (most innovative SMEs in the Netherlands in 2021) were contacted via e-mail. Unfortunately, the e-mails did only lead to 2 answers and eventually 0 interviews because of lack of time for the firms. Before conducting the interviews, a pilot-interview was done with the contact person of the author to confirm that the interview questions fit the participating firms and to make sure the answers are sufficient to answer the research questions. All interviews lasted between 45 and 90 minutes.

<b>Firm</b>	<b>Product/Firm type</b>	<b>Firm Size</b>	<b>Function</b>	<b>Gender</b>
A	Building material	200	Warrant-manager	Male
B	Building contractor	20	Director	Male
C	Building advisor	24	Director	Male
D	Architect	10	Director	Male
E	Construction management	3	Director	Male
F	Installation technology	100	Manager	Male

*Table 1: Overview of the 6 interviewed firms and persons*

### 3.4. Data analysis

After conducting the interviews and gathering all the data needed to answer the research question, the interviews will be transcribed and sent to the interviewees so they can confirm the information or suggest change to improve the reliability and confidentiality of the data. For a good transcription of the interviews, it is useful to record the interviews. The interviewees are asked permission for recording the interviews and told that this information will remain confidential and will be deleted after the research is finished. The transcripts are then coded successively using the Gioia method (Gioia, Corley, & Hamilton, 2012). This method starts with taking in-vivo codes (quotes) out of the transcripts that are being translated into first-order concepts. These first-order concepts are being grouped into second-order themes, after which a few aggregate dimensions remain. After this, the basis for building a data structure is built which not only allows configuration of data into a sensible visual aid, but also provides a graphic representation of how raw data is being progressed to terms and themes in conducting the analyses – a key component of demonstrating rigor in qualitative research (Tracy, 2010). Qualitative rigor is a way to establish trust or confidence in the findings or results of a research study (Thomas & Magilvy, 2011). Part of the coding results can be found in Appendix B.



## 4. Findings

In this chapter the information received out of the interviews are being summarized. An overview of the interviewed firms can be accessed in Table 1 in chapter 3.3. Table 2 provides a summary of the interviewed firms regarding their viewpoints on CSR and SI. In accordance with the EU definition of SMEs which classify firms with 50 employees or fewer as small, firm A and F are the only firms in this research that can be classified as medium-sized while the other four are classified as small.

Compa	A	C	B	D	E	F
Number of employees	200	24	20	10	3	100
Company size	Medium	Small	Small	Small	Small	Medium
<b>Corporate Social Responsibility (CSR)</b>						
Importance on 1-10 scale	8	6	4	3	10	8
Strategy	X				X	X
Documentation	X					X
Reporting on website	X					
Mentioning on website	X	X	X	X	X	X
Use of sustainable measurement methods	X	X		X	X	X
<b>Reasons to perform CSR activities</b>						
Pressure from outside		X	X		X	
People	X	X			X	X
Planet	X	X			X	X
Profit	X	X	X	X	X	X
Motivation	X				X	X
<b>Barriers to perform CSR activities</b>						
Money			X	X		
Time		X	X	X	X	
Motivation			X			
Knowledge			X	X		
<b>Social Innovation (SI)</b>						
Innovative at all?	X	X		X	X	X
Strategy	X				X	X
Documentation	X					X
Reporting on website	X					X
<b>Reasons to perform SI activities</b>						
Improving people's lives	X	X		X	X	X
Improving environment	X	X			X	X
Pressure from outside					X	
Motivation	X	X			X	X
<b>Barriers to perform SI activities</b>						
Money			X	X		
Time		X	X	X		
Motivation			X			
Knowledge			X	X		

Table 2: Overview of CSR and SI within the 6 interviewed firms.

#### 4.1. Corporate Social Responsibility

Three of the four small firms (C, B and D) were clear on whether they have a CSR **strategy** or not. They identify themselves as being too small to have a formal strategy to follow. The other small firm (E) had their whole business model focusing on CSR and SI which makes them the only small firm having a CSR strategy. Though, this firm mentioned they understand that most small firms can not have a CSR strategy because they **lack time** and do not have the people to focus on these elements.

The first and last interviewed firms (A and F) were the biggest ones respectively with around 200 and 100 employees. These firms had a different department focusing on CSR activities and even sustainability teams.

*“Every year we bring out a CSR report of the previous year in which we describe and show our positive influence on the world, focusing on people, environment and society.” (Warrant-manager Firm A).*

*“Next to making profits we really try to take into account the effects of our activities on the environment and we try to show our interest towards human aspects within and outside the firm” (Manager Firm F)*

Only the medium-sized firm A stated that they report CSR on their **website** including the annual report on CSR. The other five firms did not report on their website, but they did mention their viewpoints on CSR. Four of these five explained that they mentioned it because every firm does it for a certain **reputation** or because of **external pressures**. This did not mean they focused on CSR, which creates a situation of firms mentioning CSR practices which they do not perform or not perform in the way they promise. The reason for not reporting is the possible risk of creating **wrong impressions** and promises that could not be fulfilled, and again the firms do not have **time** to work on this or do not want to create time.

*“Almost every firm mentions something about their CSR practices without even working on it.” (Director Firm C & Director Firm E)*

Firm E has full focus on building future-proof, circularity, sustainability (measurement methods) and energy transitions. Though they only have 3 employees, they identify **motivation** as their main reason of successful CSR practices which differentiates them from competitors within building advise. Firm A stated that they are motivated to work on CSR activities to become the main reference in the field of sustainable developments within the construction industry. The firm even has a certain CSR program for their employees to follow which creates **awareness** throughout the whole firm. The last interviewed firm, firm F, also is aware of creating a certain influence with their CSR activities on the environment and the society they are working in by trying to provide a learning place for students to become qualified employees after all.

The other three firms simply focus more on making profits and put this goal at first place. Firm B is already in business for more than 100 years. They did not see a reason to change, which is conflicting with firm E stating that not developing on CSR will be fatal for your firm.

*“With our focus on and knowledge we try to open people’s eyes about CSR practices and mostly sustainability.” (Director Firm E)*

CSR practices and sustainable solutions require **investments**. Two firms (Firm B & D) mentioned they do not invest in CSR practices unless it is obliged. Profits are at first place again and the investments in CSR do not weigh up against the results. Firm C stated that time and energy is the main reason and money is not the main issue. Both firms A and E explained that most people do not recognize the advantages of investments in CSR, and they initially **scare** them. According to them and firm C and F, the advantages of payback periods and the amounts of payback are inevitable.

*“I think the most important is that people are going to think about why for example to invest in solar panels. What does it give me in return? The payback period is around 6 to 7 years and after this time I have electricity for free” (Director Firm C)*

The last important element of CSR and constructing firms is the use of **sustainable measurement methods** and the corresponding certifications. Measurement methods like BREEAM (Building Research Establishment Environmental Assessment Method), FNC (Forest Stewardship Council) and BENG (Bijna-energieneutraal gebouw) show potential customers, employees, and other stakeholders your level of motivation and dedication to contribute to improving the (working) environment. According to C, D and E some methods are even internationally acknowledged which creates opportunities for firms to receive subsidies on projects which in return lower your investment expenses. Besides. The government is going to set regulations and rules on certain measurements and your CO2 footprint that if you do not co-operate, your firm is doomed. Firm F also did mention about sustainable measurement methods but different than from the other firms. These methods provided the firm with certificates and quality marks on sustainable solutions and products which eventually should improve the firm's **reputation** again.

#### 4.2. Social Innovation

Before asking about the concept of SI, the researcher first wanted to find out whether the firm that was being interviewed worked on innovation. Five of the six firms see themselves as being innovative or help firms to become more innovative or think more about innovative products and concepts. When asking about SI, four of the six (all small) needed a short explanation about the concept of SI first because they never heard about it or did not know enough to provide the researcher with sufficient answers. After an explanation, three firms regarded SI as very important, one saw it as not that important but there is some focus, while two did not see it as important at all because the focus is on other elements and there are some barriers which will be discussed further in this section.

Regarding a **strategy** on SI, only the medium-sized firms had a clear view and clear goals that must be realised per year. Firm E has a clear strategy on SI, but this is not documented. The firm only has three employees that all have the freedom and time to work on innovative and socially responsible processes. Same as with CSR, three small firms see themselves as being too small to invest time and energy in providing a clear strategy on SI concepts. Though, it was stated that the region that all firms are in, Twente, is the leader on SI within the construction sector. Constructing teams are being created and principals, entrepreneurs and other stakeholders meet frequently to work together to eventually get the most efficient, innovative, and socially responsible results.

*“Social Innovation for us is important in such a way that we try to make our customers think where to innovate and how. We even try to do this regionally to support local municipalities.” (Director & Advisor Firm C)*

Reasons to focus on SI are mainly about the improvement of people's **lives** and **welfare**. Giving your employees freedom to think about innovations or helping them thinking about it are the most important reasons to focus on SI according to five of the six firms. This results in the people being more satisfied which thus helps them improving their lives.

By giving employees freedom to operate and thinking in innovative ways, employees are constantly thinking about solutions to future-oriented ways of working and living. Firms A, C, E and F stated that they are working on future-oriented living daily and hereby trying to improve both people's lives but maybe even more important the **environment**.

*“Through the years we tried to develop our business with biggest respect to people and the environment” (Warrant-manager Firm A & Manager Firm F)*

*“We see SI as a daily responsibility as well as a business driving opportunity.” (Warrant-manager Firm A & Director Firm E)*

Firms B and D did not see themselves as being responsible to act in socially innovative ways. As respectively being a building contractor and an architect, they expect other stakeholders in the construction industry to work on innovative projects. Firm B explained that building contractors are not innovative in advance and acting in a very conservative way. But both firms B and D mentioned that the bigger firms within their business (building contractors and architects) do work on social innovative projects because they have the **people**, the **time**, and the **money** to work on this.

*“Building contractors in advance are not innovative.” (Director Firm B & Director Firm C)*

Lastly, firms B and D see **knowledge** and **motivation** to innovate as barriers to work on it. Firm E stated that without having the drive and the motivation to work on innovative projects and solving problems you are no where. A particular interesting statement was that firms that stay working traditionally without looking at the environment and society will not survive. Firms A and F mentioned that they are able and motivated to attract people to specifically work on sustainable and social innovations.

*“I am feeling safe with traditional building, instead of new, risky and probably costly ways of building.” (Director Firm B)*

*“Staying traditional and not work in a sustainable and innovative way will destroy your firm.” (Director Firm E)*

#### 4.3. Corporate Social Responsibility & Social Innovation

The overview in table 2 that summarized the interviewees' answers on CSR and SI provide a somewhat clear picture of the difference in focus and commitment on both concepts. Firms A, E and F show that they all focus on CSR and SI, while the other three firms B, C and D focus less on those concepts.

Looking at the difference of the number of employees between the firms, it becomes clear that firms A and F have a lot more employees than the other four and could thus be regarded as being medium-sized firms. As the firms said themselves, they have different departments and teams to work on CSR and SI. The smaller firms on the other side, except firm E, mentioned their firm is too small and has too few employees and thus time to focus on activities regarding CSR and SI.

Every firm mentioned some advantages and disadvantages of focusing on CSR and SI. The most interesting statement was from the firm that was focusing the least of all firms. Firm B was a family firm with a traditional way of working but they stated that being a market leader on social and sustainable innovations will differentiate you from competitors. Although this sounds logical, it is contradicting with all other statements and answers from firm B.

Firm A stated that firms during these days can not neglect the principles around both concepts anymore and the focus on both complements each other. You are doing a good job if no one complains about the way you earn your money regarding CSR practices. According to the warrant-manager, a big limitation for small firms and for customers is the investments that should be made to become more socially responsible and socially innovative. He guaranteed that there will arise conflicts with many firms on whether to invest or not.

The director from firm C said that innovations out of CSR principles only have advantages, and that there is never a reason to not work on or think of CSR activities. Providing advice on CSR and SI makes people think about futuristic, innovative, and sustainable solutions that may initially scare them. Though, time and the amount of people make it hard for the firm to work extensively on these activities. Money should never be the issue because according to the interviewee the payback periods of investments that improve your CSR and SI are inevitable.

Firm D sees CSR and SI as an obligation that is being pushed by the government. This why the focus regarding CSR is just on some sustainable innovations but nothing extra. According to the interviewee the firm lacks a certain structure to regularly focus on CSR and innovations. The firm is small with only a few employees that simply do not have the time to think of innovative solutions, and next to this the investments that should be made deters the firm to do it.

Firm E was the smallest one that was interviewed, but probably the most socially, and sustainably innovative one. Their main goal is to make people aware of how interesting sustainable solutions are, and with these solutions trying to reduce emissions. This in return creates a safer environment for people and the future of the world is being preserved. The interviewee stated that innovating only has advantages, even more when the innovations are focused on CSR and to make buildings more sustainable. If you see the alarming situation around the climate change and CO2 emissions, you again destroy your firm if you do not co-operate.

*“Ambition became law.” (Director Firm E)*

The last interviewed firm, firm F, made the importance of sustainable and social innovations for their firm, the environment and society very clear. They put a lot of time and effort in attracting and developing experienced advisors to work successfully on activities regarding CSR and social innovation. By focusing on calculations of energy bills, payback periods and the possibilities of subsidies on sustainable solutions the firm tries to convince customers to invest in these solutions that have a longer lifespan and higher returns according to the interviewee.

#### 4.4. Stakeholders

The last questions that were asked focused on the importance of stakeholders. Throughout the six interviews, some main stakeholders could be identified. It became clear that within the construction industry the collaboration with different parties during a construction project is very important. People who know more about subsidies, building advise, sustainable measurement methods, installation work and so on are very important to help working on CSR and SI practices. All different parties like for example the architect, the contractor and/or the supplier should be matching each other's capabilities and knowledge. When someone does not know anything about for example BREEAM, but you want to work with this measurement method, the match is not there. This makes a lot of potential parties unwilling to co-operate on these kinds of projects with these examples of concepts which they are not known with. Firms B and D explained they simply do not have the knowledge to work on certain CSR and SI principles and they do not have the motivation to start learning on it. They even see these kind of concepts as “empty slogans”. The other four firms (A, C, E & F) however emphasized on the CSR and SI principles and the collaboration between all parties. They again state that principals and the government will set certain requirements regarding CO2 emissions. Next to this, the government plays an important role in safety procedures and guidelines regarding certificates for sustainable measurements methods.

Two finally important stakeholders within the construction industry are the customers and the employees. Customers more and more demand socially responsible solutions, while employees expect certain working environments and want to work for firms that act in a socially responsible way. While firm B thought he was not doing that much on CSR, he was investing a lot in a safe and pleasant working environment which increases his employee welfare. Employee welfare is a very important topic that was mentioned a lot throughout the interviews. Firm C stated that absenteeism could be very problematic, so it is something to keep in mind.

## 5. Discussion & Conclusions

The main contribution of this research is to find out the commitment of SMEs in the Dutch construction industry towards CSR and how this commitment can influence social innovation. The following chapter discusses the findings from the previous chapter and these findings will be compared with the literature that was found in the literature review of chapter 2 which will eventually lead to the answers on the research questions. After elaborating on these, the practical implications, limitations, and directions for future research will be expanded.

### 5.1. Theoretical implications

According to the existing literature on CSR within the construction industry (CSR-C) it contains the moral obligation of attaining good levels of citizenship, sustainability, reputation, relationships with employees and unions, relationships with suppliers and community representatives, and commitment to CSR reporting (Petrovic-Lazarevic, 2008). The results on the commitment of SMEs within the Dutch construction sector to CSR indicate varying results that are based on various elements. Evidence pointed out that SMEs that focus on CSR activities have a clear strategy and viewpoint on these activities and are not afraid to invest money. Having the motivation and drive, together with making all the employees aware of the activities and the goals will eventually help the firm being successful on CSR.

Literature stated that commitment towards CSR is not voluntary anymore but could be seen more as an obligation with the pressure from outside and as a business imperative (Baskentli, Sen, Du, & Bhattacharya, 2019). Firms are expected to behave more ethically (Sarkar & Searcy, 2016), and the construction industry is expected to answer to these problems even more because of the industry being labour intensive, higher exposure to accidents (Jiang & Wong, 2016), and lastly being socially responsible because the industry materialises the environment with buildings and other infrastructure (Xiong, Skitmore, Chau, & Ye, 2015). The interviews brought some supportive and some contradicting views on this. Some firms did not see themselves as being responsible for the extensive usage of materials, while other firms (especially A & F) see themselves as being responsible. The smaller firms were working on CSR practices because of the pressure from outside, while the motivation of the bigger firms to work on CSR practices did not start because of pressure, but because of the motivation of making positive impacts and creating a better reputation. Regarding safety issues, all firms saw it as very important to create a safe and healthy working environment which causes less absence and improves employee performance and satisfaction.

Jiang and Wong (2016) identified that the CSR fulfilment in the construction industry is having pressing problems. Pitt et al. (2009) identified barriers that made SMEs reluctant to work on sustainability and CSR practices. These were affordability, regulations, lack of client awareness, lack of understanding, lack of demand, lack of measurement methods, lack of technologies, and lack of planning policies. Looking at the findings of the interviews, some main barriers were identified which mostly correspond to the barriers found in the literature from Jiang & Wong (2016) and Pitt et al. (2009). Money (in the literature mentioned as affordability) is a common barrier for SMEs in the Dutch construction industry to work on CSR and sustainability. Making profits instead of investing is one of the main reasons to not invest, thus not thinking about the Triple Bottom Line at first. Troost (2020) mentioned that financial packages to stimulate CSR activity and other sustainable activities require proactive behaviour of the SMEs that state that they lack financing and thus not show a proactive behaviour. Some firms mentioned that renouncing people's daily lives and the planet makes it impossible for firms to survive, which corresponds to the literature of Porter and Kramer (2006).

Then the barrier called 'time' is one that was mentioned a lot during the interviews mainly within the firms that do not work on CSR and sustainability practices (that much). In the literature it is called planning policies which mean the misfit in scheduling (Pitt et al., 2009; Iqbal et al., 2021). Putting time into thinking of or working on CSR activities does not always fit the scheduling of SME firms in the Dutch construction sector. Mostly because they are too small, have too few employees, and the focus is simply not on these activities.



Knowledge about CSR and sustainability principles and having the motivation to work on these or develop the knowledge is also seen as a barrier, again for the firms that do not focus on the activities. Looking at the literature that mentions this element as lack of understanding (Shareef, Arunachalam, Sodique, & Davey, 2014; Pitt et al., 2009), this barrier corresponds to this existing literature. However, it could be assumed and referred to the interviews A and F that having different departments and more employees makes it easier for these firms to put time into it and focus on CSR activities and be socially innovative. The firms could attract new employees that have the knowledge and motivation to work on these activities, while according to the interviews smaller firms lack time and financial incentives to attract new employees.

The barriers of regulations, lack of client awareness, lack of demand, lack of technologies and lack of measurements methods do not immediately hold for the Dutch construction industry. Regulations are seen as a motivation for the industry to work more socially responsible, including the subsidies and other financial incentives. Clients are aware of many developments and ask for more socially responsible and sustainable solutions. When not being aware, the firms that work on CSR and sustainable chances take the opportunities to show the solutions and the technologies that are being developed like prefab building and the solar panels that became popular in the meantime. During the years, a lot measurement methods were developed like BREEAM and BENG (Pitt et al., 2009), which creates an incentive for firms to work on these and receive certificates which creates a positive reputation on CSR and sustainability practices. Lastly, the barrier of lack of demand does not hold for the Dutch construction industry in today's market because the demand exceeds the supply (van Impe, Scholiers, Vansteenkiste, & de Smet, 2022). Next to the current status of the market which is of course not permanent, the demand for sustainable solutions in the construction industry is high with the use of raw materials, usage of energy and the emissions of greenhouse gasses that all should be reduced or re-used.

According to the firms that put a lot of time in CSR and sustainability activities develop the knowledge to know that investing in these activities is worth it and they also try to convince other firms to follow these developments. Literature supports these statements by saying that having unique strategies on not only maximizing profits but trying to achieve goals for the benefit of society will create a competitive advantage (Szegedi, Fülöp, & Bereczk, 2016). Next to this, this supports the theory of the TBL which focuses not only on making profits, but also takes into account the people and the planet. So, the positive correlation of investing time into the creation of knowledge about the benefits of these practices makes sense and is worth mentioning.

Existing research on SMEs within the Dutch construction sector suggests that the main barriers for social innovation are the financial infrastructure that limits the investments into knowledge building and sharing (Häkkinen & Belloni, 2011; Iqbal et al., 2021; Pitt et al., 2009). Two firms that were interviewed mentioned that they indeed see the investments as an obstacle to work on innovations or to gain knowledge about it. The other four stated that it is worth it, but they understand firms that do not have the knowledge about for example payback periods of social innovations and the positive side effects that these provide.

A step in the right direction of social innovation according to the same research is to have an active approach and management towards social innovation where the concept gets a central place within the business (Porter et al., 2014; Arnoldussen et al., 2017). Looking at the firms from the interviews that have a certain approach or goal towards social innovation and that have the need and willingness to create an impact with their product, it became clear that this stimulates social innovation throughout the whole firm. It starts with being innovative at all. Together with the focus on CSR principles and trying to improve people's lives and the environment both small and medium-sized firms could become successful on social innovation activities.



In conclusion, the results for *RQ1* indicate that the commitment towards CSR influences social innovation in such a way that the focus, investments, and motivation that are being put into the activities regarding CSR eventually increase the need and drive to work on social innovation activities. Though, there are some barriers for smaller firms to overcome to start working on and investing in CSR related activities which after all lead to socially innovative products and services. These barriers lead to the findings of the second research question, which focuses on the barriers to work on the principles mentioned in the first research question.

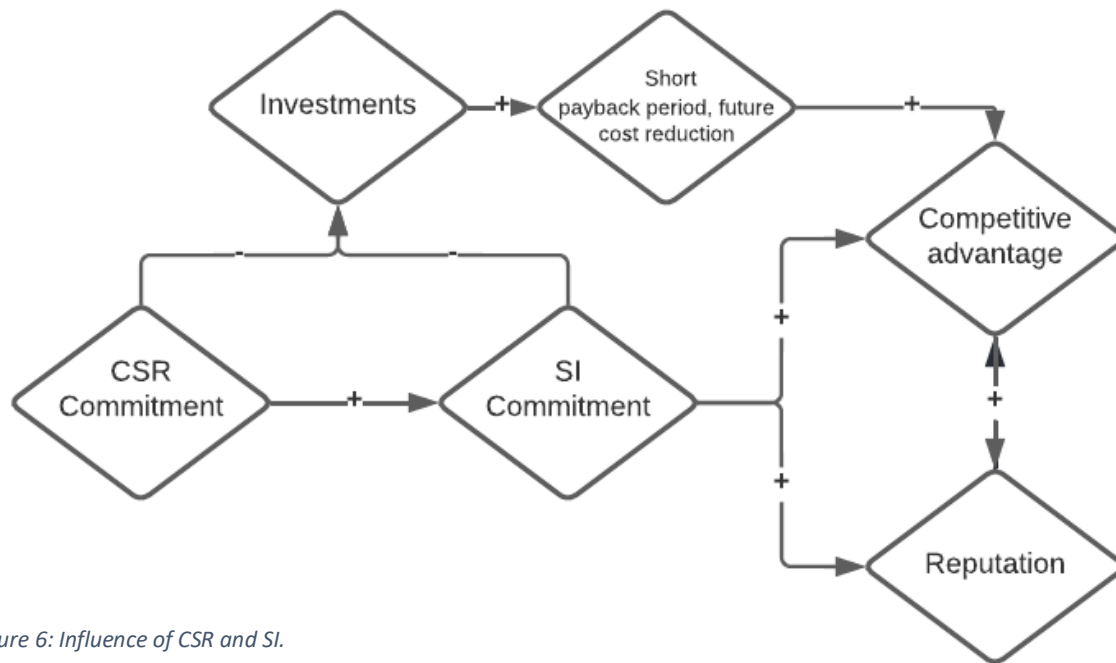


Figure 6: Influence of CSR and SI.

The results for the *RQ2* focus on the barriers that are found in the literature, which could be compared to the barriers found in the interviews. The corresponding or contradicting answers are already discussed in the theoretical discussion. The results of these summarisations and conclusion could be found in the Table 3 below.

	Literature	Interviews
<b>Barriers</b>		
Affordability	X	X
Regulations	X	
Lack of client awareness	X	
Lack of understanding	X	X
Lack of demand	X	
Lack of measurement methods	X	
Lack of technologies	X	
Lack of planning policies	X	X
Lack of motivation		X

Table 3: Barriers out of the literature compared to the interviews.

## 5.2. Practical implications

The interview results pointed out that all interviewees have a favourable opinion on CSR and social innovation and see it as an obligation towards society and the environment, but some do not have the time, knowledge and or money to become active in working on these concepts.

Conversations with the firms that do not work that much on CSR and social innovation made these barriers clear, while discussions with the firms that work a lot on it clarified how to solve or overcome these barriers. Making people aware of potential solutions regarding CSR and social innovations could open their eyes, and they will change their viewpoints on these activities and the potential investments and time that should be put into it. After creating the awareness and gaining knowledge about the concepts, and the advantages that these bring for the firm, these firms will eventually become less reserved when thinking of investing. After this, the advice to firms is to communicate with their employees and other stakeholders about the goals and vision to work on CSR and social innovation in tandem.

According to the interviews measurement methods like BREEAM and BENG are important methods that improve a firm's reputation when being mentioned on websites or other channels. These methods show how well and to what extent a firm focuses on health, circularity, cost-effective, future-proof, and other sustainable or socially responsible solutions. The answers of firms A, E and F (and maybe C) show what the focus on CSR brings a firm and how it makes the firm future-proof. Firms B and D do not intend to work actively on CSR activities, which reduces the amount of work put into socially innovative activities.

## 5.3. Limitations & directions for future research

This research is subject to some limitations that will be addressed, together with the opportunities for future research. Firstly, a qualitative study using interviews was performed. Though the six interviews provided the researcher with a lot of useful, interesting, and original information, the results could lead to biased conclusions. Reaching conclusions and generalization the results could be very difficult for this qualitative type of research, especially with this small number of interviews.

The use of interviews could also lead to some bias because some concepts introduced and asked about were unclear or unknown to the respondents in advance. The researcher tried to mitigate this limitation by explaining every concept before questioning to ensure the interviewee knows what will be discussed. Some questions that were asked could seem sensitive to the interviewee which may restrain the person from providing genuine answers. For example, firms that are not focusing on CSR but do not want to show this by giving socially desirable answers could provide the researcher with answers that lead to biased results. The researcher again tried to mitigate this potential limitation by ensuring that firm and person names remain anonymous to the interviewee.

The firms interviewed are all placed in the region of Twente, a region in the East side of the Netherlands. From a geographical viewpoint, the results of this research could be biased and not apply to other regions or places in the Netherlands because of differences in culture or welfare.

Lastly, a knowledge gap or potential research emerged during this study. The firms that high emphasis on CSR and social innovation activities explained that advising other SMEs in the industry to gain knowledge about the concepts and create the awareness among themselves and the employees. Future research could examine the best ways or how to make SMEs aware and work on these concepts to become more socially responsible and innovative, which eventually leads to a better future for the firm.

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## Appendix

### Appendix A: Semi-structured interview guide

#### Introduction

1. What type of firm is this and what are your daily activities?
2. How many employees does this firm have?
3. What is your function and how did you manage to get into this role?

#### Social Responsibility (First an explanation is being provided if needed)

4. What are the values regarding social responsibility within this firm?
5. Are these documented and/or known at the employees?
6. How does this firm apply these values in their daily activities?
7. How important are the activities regarding social responsibility for this firm?
8. Why are they (not) important?

#### Social Innovation (First an explanation is being provided if needed)

9. To what extend is this firm being innovative?
10. How does this firm try to stay innovative?
11. Does this firm consider the social aspects of innovating like trying to improve people's life through new products?
12. Does this firm consider and/or improve the environment with innovations?

#### Social Responsibility & Social Innovation

13. To what extend do you consider social responsibility while being innovative?
14. How important are your stakeholders during innovative processes? And what stakeholders do you value most?
15. What motivates you to invest in CSR and SI solutions?
16. What are according to you the advantages and disadvantages of social responsibility and social innovation?
17. How is this firm trying to combine meeting business goals and societal needs while staying competitive?

## Appendix B: Part of the coding scheme

			Company Founding year	A 1848	B 1912	C 2017	D 1997	E 2017
Aggregate Dimension	Second-Order Themes	First-Order Concepts	In-Vivo Codes (Fragment number)					
Introduction / background	Background	Role/function	Manager Expert Owner/Director Architect Advisor Supplier of building materials Building contractor Architect Building advisor Installation technology Construction management Private Public Mostly private with sometimes an exception	A.1				E.1 E.1 D.3 C.3 B.1 D.1 E.1 E.1 E.1 A.1 A.1
		Company/product type						
		Focusing on private sector or public sector?						
Corporate Social Responsibility	Meaning CSR	Are you known with the concept of CSR?	The concept of CSR is clear The concept of CSR needs some explanation	A.4	B.4	C.4	D.4	E.4
	Importance of CSR	How important is CSR for your company?	Very important Not that important Not important at all	A.6		C.6	D.6	E.6
	Documentation & Guidelines CSR	Are your CSR guidelines documented?	Yes No	A.4	B.4	C.4	D.4	E.4
		What are the guidelines & viewpoints regarding CSR?	Every year we bring out a CSR report of the previous year We want to show our positive influence on the world, focusing on people, environment & society We have programmes for employees to learn about and work on CSR practices We try to minimise driving distances in order to decrease transportation costs and emissions Our main goal is to think of the best ways to reduce CO2 emissions We try to design buildings as sustainable as possible When money is being earned and something is left, then we could maybe think of investing We try to focus on financial, technical planning, and sustainable pillars I think we are doing too less on CSR We try to work regionally to improve local employment which is also supported by the municipality The investments needed are too big for a company with a size like this Measurement methods like BREEAM or BENG are internationally acknowledged	A.4 A.4 A.5 A.3		C.4	D.4	E.3 E.2
		Why (not) work on CSR practices	No one is forcing me to drive electric cars instead of diesel so we are not investing if not needed My goal is to advise companies to think of CSR A company with this size and this amount of employees does not have the time to work on CSR For us it is important to make people aware of the benefits of CSR and what it delivers to them in return Commercial gains All companies work on CSR somehow, because the government sets certain rules and regulations In today's society you have to make money in a socially responsible way We are a family business that is already in business for 100 years so I think we do not have to change We open people's eyes with our knowledge about CSR and mostly sustainability There is never a reason to not work on or think of CSR activities I think On average investments are high but definitely worth it if explained well CSR and operating results are indissolubly interconnected To be honest I really prefer making profits than working on CSR Creating a nice and safe working environment is important to attract employees as well as customers CSR activities are not important for our company but they probably will become more important Our industry differs a lot from for example the car industry when looking at all our measurement methods		B.4	C.7 C.12 C.4	D.7	E.4 E.3 D.4 D.12
		Do you mention CSR activities on the website?	Yes No We mention it for the sake of a positive reputation but do not focus on it Almost every company mentions something about CSR without even working on it	A.5	B.6 B.3	C.5	D.6	E.6 E.3