The importance of sustainability practices for B2B customers: The case of the real estate rental market

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Abstract:

Concerns about climate change and natural resources have increased scholars', policy makers', companies' and consumers' interests in sustainability. Marketing plays a significant role in communicating companies' sustainability initiatives and promoting them. Companies have integrated sustainability into their strategies and operations while customers experience challenges identifying genuinely sustainable companies. Risk-sensitive Business to Business (B2B) customers are prepared to pay a premium to mitigate greenwashing risks, which also applies to the real estate leasing market. The real estate industry has a substantial environmental impact with an increasing demand for sustainability practices due to taxonomy guidance on sustainable investments.

This thesis uses previous research to form a theory on how sustainability and customer environmental awareness influence brand image formation. Previous studies suggest that firms committing to sustainability practices in their operations experience a positive impact on business performance through an improved brand image. Environmentally concerned customers are responsive to companies' sustainability practices and attach importance to sustainability, which enhances the company's brand image. Through identifying different customer segments, this thesis explores the importance B2B customers attach to different sustainability practices. The study also addresses the B2B customers' willingness to pay a premium to reduce environmental impact, the satisfaction towards sustainability practices of a service provider and the perceived brand image within different customer segments. The study focuses on Nordic B2B customers in the real estate office leasing market.

The empirical findings identify five distinct B2B customer segments based on the degree of importance customers attach to different sustainability practices. These segments are the Uninterested, the Next-generation motorists, the Tangibles-oriented, the Passive supporters and the Enthusiasts. These segments provide insight into B2B customer preferences and sustainability practices that can be used to guide marketing practices. There was no apparent distinction between the customer segments regarding the willingness to pay and the satisfaction towards the service provider's sustainability practices. Those B2B customers who are satisfied with the service provider's responsibility and sustainability practices also positively perceive the service provider's image. Generally, the study finds as the company's size increases, the importance customers attach to sustainability also seems to grow.

Keywords: brand image, sustainability practices, sustainability associations, willingness to pay for sustainability, B2B customers, real estate leasing market, customer segmentation

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This thesis is the last part of my master's studies in Marketing at the Hanken School of Economics. The research exploits data from business customers of a Nordic company. Continuing studies in marketing have been a valuable learning experience, and I am eager to put my knowledge into practice in the real estate field.

Firstly, my gratitude goes to my supervisor Professor Jaakko Aspara for exceptional guidance during the research process and encouragement to pursue the topic. Secondly, I would like to thank the case organisation for arranging the possibility of using the customer data.

My interest towards business studies was aroused in 2016 after finishing my bachelor's degree at Aalto University School of Engineering. Finance studies were the most popular to combine with real estate studies but ended up with the most unusual combination with engineering studies: marketing. As it is said, the third time is a charm, and I got the privilege to start my marketing studies at Hanken. Lastly, I want to thank all the lovely people I have got to know during the past years, what a journey it has been. I'm very grateful to Master's Committee members, you have made the time at Hanken memorable and reminded me of the importance of teamwork. Not forgetting the fantastic AK crew of Antti, Janiela, Tom and Daniel for being ready whenever for a glass of wine.

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1 INTRODUCTION

1.1 Background

Corporate responsibility and sustainability matters are gaining more attention than ever before across industries. A megatrend of climate change has emerged in the market, steering businesses in a new direction. Demanding and more aware customers want to see proof of actions from corporate businesses. As increasingly noted by business media, such as Forbes, corporations are also updating their business strategies to be responsible market actors (Newman, 2020). They follow new regulations, such as the EU taxonomy for investments in sustainable activities (EU TSA), that define sustainable business operations and promote sustainable practices (EU Taxonomy Info, 2022). Companies and their brand managers have widely integrated sustainability into their practices, and to some extent emphasise them through marketing communications. Customers are having difficulties identifying businesses that are making a difference by reducing environmental impact through their actions. Both corporations and customers suffer from a lack of comparability between different corporations' sustainable brand images.

In academic research, sustainability associations of corporate brands have been studied mainly in the business-to-customer (B2C) context (see, e.g., Bashir, Khwaja, Rashid, Turi and Waheed, 2020; Chen, 2010; Lin, Lobo and Leckie, 2017), while there is less research on business-to-business (B2B) brands' sustainability image. The market research agencies such as Kantar Brandz (2022) have suggested that B2B customers can influence market practices by demanding sustainability from their partners and want confidence that these sustainability activities are also applied. To be more competitive, companies need to focus on taking into use the most demanded sustainability practices and building a credible brand image to maximise market performance. Therefore, understanding B2B customers' interest in and willingness to pay for different sustainability practices is essential.

The same general challenge also occurs in the real estate industry, where consumers interact daily. Hence, the sustainable practices of this industry, even if B2B, touch everybody's daily life. In the present thesis, the focus is on B2B real estate industry. What makes the real estate industry a particularly interesting context to study is the fact that unlike in many other B2B industries so far, B2B customers in the real estate industry seem to be even willing to pay higher prices (or rents) for more sustainable suppliers or service providers, including landlord (World Economic Forum, 2021). In 2019, Forbes

published an article emphasising that sustainability matters and sustainability-related initiatives have considerably increased during the past decade in the real estate sector (Miller, 2019). The real estate sector and built environment have an important role in actions against climate change, delivering sustainable economy in energy and resource efficiency (Falkenbach, Lindholm and Schleich, 2010). Nowadays, sustainability initiatives drive real estate investment opportunities while customers demand more actions against climate change (JLL, s.a.). Tenants are attracted to property-related sustainability initiatives that align with their business targets (Pitta-Browning, 2021). According to research by global real estate advisory and consultancy provider CBRE (2022), some sustainability practices can influence corporate tenants' willingness to pay higher rents. Corporate tenants' willingness to pay higher rent for sustainable real estate can be explained by, for example, potential brand image benefits, increased productivity and lower running costs (Falkenbach, Lindholm and Schleich, 2010, p.209). Furthermore, the Finnish newspaper Kauppalehti published a column anticipating that sustainability-related services such as electric car charging or certification may become a prerequisite for tenants when considering business premises (Järvinen, 2021). Therefore, sustainable practices by the landlord are perceived positively by the sight of corporate tenants and enhance the landlord's corporate brand image.

In general, previous studies in the B2B sector have suggested that a company's brand image and performance can be improved by integrating sustainability and branding (Kumar and Christodoulopoulou, 2014, p.9). Companies can integrate sustainability into their brand image by creating sustainability associations through sustainability initiatives, such as social and environmental practices in companies' operations and communicating these to customers (Vesal, Siahtiri and O'Cass, 2021). In addition to being valuable and important in their own right (for the planet and society), implementing sustainable practices in operations can yield direct economic value through savings to supplier companies, such as efficient use of materials, recycling or decreased energy and water consumption costs.

Vesal, Siahtiri and O'Cass (2021) and Kumar and Christodoulopoulou (2014) reached a conclusion suggesting that firms committing to sustainability practices in their operations establish a credible brand image which positively affects business performance. Furthermore, B2B firms with sustainable commitments tend to prefer responsible business partners, and strong customer relationships enhance positive brand image and business performance. Among B2B customers, intrinsic motives, e.g.,

the aim of doing good for society without thinking of benefits for the company, has been found to result in a more positive customer perception of the brand than extrinsic motives, whose goal is to increase the profitability of the company (Pai, Lai, Chiu and Yang, 2015, p.690).

As mentioned before, comparing companies with sustainable practices can be difficult and sometimes greenwashing occurs when saying and doing do not correspond. Companies can advocate being environmentally sustainable, but not implementing sustainability in their daily operations can be considered greenwashing (Vesal, Siahtiri and O'Cass, 2021, p.324). A recent study reveals that more greenwashing takes place in companies that operate in close proximity to consumers or are in a high-visibility industry (Ruiz-Blanco, Romero and Fernandez-Feijoo, 2022, p. 4039). In other words, B2C businesses tend to practice greenwashing more than B2B. To avoid confusion and misleading customers, businesses must comprehensively follow and communicate their sustainability practices (Kapitan, Kennedy and Berth, 2019, p.84). Kapitan, Kennedy and Berth (2019) suggest that superior sustainability positioning for a B2B company can be positioned under five sustainability themes "(1) sustainability credibility, (2) concern for environmental impact, (3) a careful consideration of stakeholders, (4) resource efficiency, and (5) a holistic philosophy".

The previous studies of Kumar and Christodoulopoulou (2014) and Vesal, Siahtiri and O'Cass (2021) have focused on how sustainable initiatives create a brand image through customers' sustainable associations and what role customers' general attitudes towards sustainability play in this process. Moreover, Kapitan, Kennedy and Berth (2019) addressed sustainability practices also from a company perspective and how to position a company under the five themes. All those studies note that sustainable business practices are essential for developing sustainability associations in the brand image. However, none of them has explored which specific sustainability practices might be especially important for B2B customers in the given industry, with respect to their willingness to pay for the B2B services and their attitudes towards the B2B service provider brand. This research aims to fill these gaps by identifying the sustainable practices common in the real estate industry and measuring the importance B2B customers attach to them.

1.2 The aim of the study

The aim of this study is to explore which specific sustainability practices are especially important for B2B customers in the real estate rental market and which customer segments exist in terms of value assigned to specific sets of sustainability practices. In addition, the segments are explored with respect to the willingness to pay more for a service to reduce their environmental impact and the attitude towards the B2B service provider brand. By looking at different sustainability practices, the paper also attempts to identify the most impactful ones for enhancing the corporate brand image. The service provider in question is a Nordic company that leases business premises for business customers.

In order to establish the importance of specific sustainability practices in a B2B setting, the following research questions are to be answered:

> RQ1: What customer segments exist in the B2B real estate market in terms of the importance customers attach to different sustainability practices?
>
> RQ2: Which B2B customer segments have the highest vs. lowest willingness to pay for sustainability?
>
> RQ3: Which B2B customer segments have (a) the highest vs. lowest satisfaction with a given service-provider brand's sustainability overall and (b) the highest vs. lowest brand attitude and satisfaction?
>
> RQ4: Which background characteristics characterize the customers in the different segments?

1.3 Delimitations

The survey context is focused on business customers' experiences and satisfaction with leased commercial space and lessor, i.e., the real estate industry. Other sub-sectors of the B2B real estate industry (e.g., real estate agencies, real estate maintenance companies) are not studied, nor B2B companies outside the real estate rental market. The survey utilised in this master's thesis research was designed, and the survey data was collected before writing this thesis and research report. Thus, not all the survey questions were optimally designed to answer the present research questions, although the literature and previous research were used in the design process to some extent. The sample of this study comprises B2B customers of a particular service provider, e.g., landlord, in Nordics. Since the study focuses only on one landlord’s B2B customers, there is an

existing relationship between service provider and client that may have a distorting effect on results. But as the survey was conducted by third party the influence is considered to be minor. Moreover, B2B customers are companies operating in Nordics, which creates cultural limitations and may affect to results of empirical research.

1.4 Research structure

This paper is divided into five chapters, depicted in Figure 1. The first chapter introduces the research background and the topic, including three research questions that this research aims to answer. Then, the research scope, method and limitations are presented briefly.

The second chapter provides a deeper understanding of the topic and provides theoretical background. Furthermore, the chapter reviews literature covering the main concepts of sustainable brand image, environmental attitude, and greenwashing, introduces general sustainability practices applied in the real estate industry and previous research on customer segmentation in sustainability. Finally, the chapter presents the framework to address the research questions.

Chapter three describes the research design, the chosen sample, and the data collection and analysis method. Lastly, the chapter addresses the quality of data and ethical concerns.

The fourth chapter reports the empirical study results and reflects the findings between the data and the theory from the literature. First, the results of the descriptive analysis are presented, and then the research questions with different statistical analyses of data (e.g., principal component analysis, cluster analysis and ANOVA) are addressed.

The last chapter summarises the research and presents the main findings in light of the research questions. The theoretical and managerial implications are discussed, and topics for further research are suggested.

1.5 Definitions of the main concepts

Brand image – A customer's perceived brand image is a set of associations and perceptions of the brand (Nandan, 2005, p.267).

Brand attitude – A customer's overall evaluation of a brand represent the degree of positivity versus negativity towards the brand (Park, MacInnis, Priester, Eisingerich and Iacobucci, 2010, p. 1).

Business customers' environmental attitude – The degree to which companies' key decision-makers evaluate environmental sustainability to be favourable or unfavourable. (Vesal, Siahtiri and O'Cass, 2021)

Perceived importance of sustainable practices – Perceived importance or value that a customer attaches to a company's sustainability practices.

Sustainable brand image of corporation – A set of corporate perceptions in the customers' minds associated with sustainability practices (Bashir et al., 2020, p.4).

2 LITERATURE REVIEW

This chapter reviews existing literature and presents the earlier research the paper is built on. The section provides a more in-depth overview of brand image in sustainability, from business-to-customer (B2C) and business-to-business (B2B) points of view, to identify differences and help the reader to understand the main context of this research: the B2B. Then, the literature review addresses sustainability's credibility while explaining greenwashing and providing a framework for credible brand positioning in sustainability. Different ways to create market segmentation are also introduced. Lastly, the chapter proposes a theoretical framework to answer the research questions.

2.1 Brand image and sustainability associations

2.1.1 Brand image in general and the role of sustainability

Research around the concept of brand image has expanded over the past decades while researchers have explored and conceptualised it. The study by Dobni and Zikhan (1990, p.112) aggregated classifications of the brand image from different authors that linked the concept to brand associations, functional utility, symbolism, personification and cognitive or psychological elements (i.e., feelings and attitudes). Based on Dobni and Zikhan's (1990) research, Lee, James and Kim (2014, p.8) continued the study and suggested that brand image results from customer perceptions derived from the interaction of the cognitive, emotional, and evaluative processes in a customer's mind. Thus, brand associations form a brand image. The associations can also be related to the seller's offerings or the company, such as the company's heritage and values reflecting responsibility towards the environment, stakeholders, and society (Aaker, 2004). Therefore, sustainability association or perceptions can be regarded to be under the subsets of associations that are linked to company brand (Aaker, 2004).

Previous studies have found evidence that a positive brand image favourably affects brand performance in the market. A brand image can provide a competitive advantage as a differentiator in a market with otherwise similar competitors against competitors with similar tangible features (Chen, 2010, p.308). During the past years, the general demand for sustainability in every area of life has increased. Furthermore, to an increasing extent, this recent trend of sustainability and sustainability initiatives has been integrated into marketing practices and has been recognised to positively influence brand image (Kumar and Christodoulopoulou, 2014; Vesal, Siahtiri and O'Cass, 2021). Bashir et. al., (2020) and Chen (2010) used the term green brand image, defining it as a

set of perceptions associated with environmental concerns and commitments generated in customers' minds. While green brands focus mainly on environmental attributes, sustainable brands also integrate economic and social aspects into operations.

2.1.2 Sustainability and brand image in B2C markets

When thinking about marketing, people usually tend to first think about B2C marketing. This paper focuses on B2B marketing, and it is important to distinguish between the two. Several studies have explored how environmental initiatives can build a green brand image and green brand equity in the consumer market (Bashir et al., 2020; Chen, 2010; Olsen, Slotegraaf and Chandukala, 2014). Green brand image is derived from brand perceptions in customers' minds associated with environmental concerns and commitments. Then again, a corporate's sustainable brand image is "a set of corporate perceptions in the consumer's minds that are associated with sustainability work practices". (Bashir et al., 2020, p.4)

In B2C, brand image sustainability highlights both emotional attributes and functional benefits. Regarding the emotional attributes, both environmental and self-expressive benefits (e.g., symbolism) are essential to forming a green brand image. (Lin, Lobo and Leckie, 2017, p.426; Hartmann, Ibánez and Sainz, 2005, p.18) Consumers with environmental concerns are also found to have green brand preferences (Bashir et al., 2020, p.3). Consumers tend to look after green satisfaction related to a pleasurable consumption that satisfies customers' green desires, needs and sustainable expectations (Chen, 2010, p.309-312). Hartmann, Ibánez and Sainz (2005, p.18) suggest that through emotional connection, consumers are pursuing satisfaction in their contribution to the "common good". In order to satisfy the customers' beliefs and expectations, customers need to first perceive the brand as credible and trust the brand's ability to deliver environmental performance, which is also called green trust. (Chen, 2010, p.309-312) Moreover, green satisfaction influences customers' green brand preferences and allows companies to differentiate themselves (Bashir et al., 2020, p.2).

Jeong, Jang, Day and Ha (2014) found that green brand image influences consumers' attitudes toward the brand through the perception of implemented green practices (e.g., recycling and energy efficiency). In other words, consumers have more favourable attitudes towards brands that are perceived to have implemented certain green practices. Ultimately, a green brand image can result in green brand loyalty, where customers continuously purchase green brands (Bashir et al., 2020, p.4; Lin, Lobo and Leckie, 2017,

p. 428). However, the practices' perceptions also depend on the customer's environmentally conscious and motivation toward environmental aspects that form green values (Jeong et al., 2014, p.11). Some consumers may desire a brand to make them feel superior, symbolise their social status, and form their perceptions and brand attitude according to these self-expressive aspects (Lin, Lobo and Leckie, 2017, p.428, p.434). Moreover, through a green brand, consumers can show socially acceptable consumption and gain an environmentally conscious image (Hartman, Ibanez and Sainz, 2005, p. 18). Recent studies show that among B2C companies, corporate social responsibility activities positively affect corporate brand image and customer behaviour about the brand, which might foster longer customer relationships (Kim, Yin and Lee, 2020, p. 6).

Functional brand benefits are usually attributes that fulfils consumers' functional needs, and they greatly influence consumers' overall attitude towards a brand (Lin, Lobo and Leckie, 2017, p. 428). Lin, Lobo and Leckie (2017) study revealed that consumers' perception of functional benefits regarding green brands has a more substantial effect on building a green brand image than attributes related to emotional benefits. Contrary to research by Lin, Lobo and Leckie (2017), Bashir et al. (2020) conducted research in the hospitality industry, and they revealed emotional benefits to be more powerful due to different branding contexts and respondents' national culture. Therefore, to establish effective marketing strategies to enhance a sustainable brand image, the customer segments on behaviour and green values behind their attitudes need to be examined (Jeong et al., 2014, p.11).

To conclude, although mixed results exist (e.g., some studies highlighting the functional benefits as well) studies on sustainable brand image in B2C mostly emphasise to customer self-expressive benefits and emotional attributes, such as green trust, preference, symbolism, loyalty, and satisfaction. Studies show that in the B2C context, customers' environmental consciousness influences the perceptions of sustainable practices and the creation of a sustainable brand image.

2.1.3 Sustainability and brand image in B2B markets

Cooperation with other business organisations enables businesses to grow faster and provides synergy advantages. But in B2B, the customer preferences differ from consumers in B2C. Business customers are more sensitive to risks and concerned about reputational damages, and therefore they are selective with whom they do business (Kumar and Christodoulopoulou, 2014, p.8). Therefore, working closely together is

common in B2B, and business relationships have high importance (Vesal, Siahtiri and O'Cass, 2021, p.325). Research by Backhaus, Steiner and Lügger (2011) showed that industrial business customers are prepared to pay a price premium to reduce the purchase risk and information costs. According to the recent study, B2B suppliers positive brand image may reduce the risk B2B customers associate with purchasing and information costs by influencing a company's attractiveness. Consequently, a positive brand image supports a company in maintaining a strong reputation and a prominent position in the market. (Vesal, Siahtiri and O'Cass, 2021, p.324-325)

Sustainability as a megatrend is here to stay. Companies need to integrate sustainability into their strategies and collect the benefits it provides for superior performance as well as for reputation. Sustainability in B2B marketing can be defined as the environmental initiatives that influence a company and its supply chains by reducing its operations' environmental impact while exploiting the initiatives to create a competitive strategic advantage (Mariadoss, Tansuhaj and Mouri, 2011, p.1307). As in the B2C context, also in B2B context, the brand image is formed by brand-related associations and perceptions in customers' minds (Nandan, 2005, p.267). Then again, customers' perception of a corporate sustainable brand image is formed by sustainable associations derived from the company's sustainability practices (Bashir et al., 2020, p.4).

Kumar and Christodoulopoulou's (2014) study address the sustainability practices implemented in business operations that should be taken advantage of by promoting them through marketing and branding. Sustainable practices cover dimensions of environmental, social, and economic aspects. The study by Kumar and Christodoulopoulou (2014) proposes steps for sustainability integration into companies' strategies, operations, marketing, and branding. After creating a sustainability strategy based on the sustainability aspects the firm decided to address, the implementation plan for sustainability initiatives that align with the firm's activities is carried out. In B2B, sustainability can be implemented through several practices in operations and other activities such as product design, recycling, lifecycle and risk management through customer engagement and environmental performance reporting. After applying these initiatives, the sustainability outcomes relevant to customers and stakeholders need to be measured and communicated through marketing to create brand associations in sustainability. These associations, for example, related to responsibility, morality, social and environmental values, can enhance the brand image and build brand value. Communication is an essential part of marketing required to raise the interest of

potential customers, and it connects the company's sustainability strategy to superior performance. Communication about sustainability initiatives and outcomes creates stronger associations among business customers that are sustainability-oriented. (Kumar and Christodoulopoulou, 2014, p. 9-13)

As presented above, a positive brand image has a positive effect on a company's performance and, then again, generally on the company valuation in the stock market, which is supported by the study by Jacobs, Singhal and Subramanian (2010). They revealed evidence that reactions from the stock market followed the corporates' sustainability initiative announcements and third-party Awards and certifications, which indicated that a company's environmental performance is connected to company value. Kumar and Christodoulopoulou (2014) showed that sustainability initiatives could provide direct benefits through optimising operations and reducing costs. Indirectly sustainability practices can enhance brand image and the company's performance (Kumar and Christodoulopoulou, 2014, p. 13). The implementation process of integration for sustainability is depicted in Figure 1.

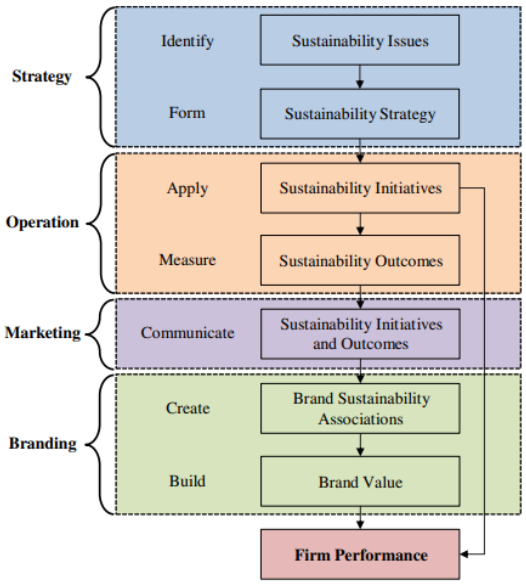


Figure 1 Integration of Sustainability - Implementation by Kumar and Christodoulopoulou (2014)

Because the research is focused on B2B customers and addresses the development of brand image, it is essential to understand the formation process. The literature shows that a company's sustainability practices are connected through sustainability associations to brand image.

2.2 The effect of customers environmental awareness on sustainability perceptions

Customers' perception of sustainability is subjective and influenced by the environmental awareness and attitude of the customer. Moreover, the perception of sustainability on brand image is also affected by the degree of credibility of sustainability practices.

2.2.1 Customer's environmental attitudes

The general communication of companies' sustainability practices has created awareness of sustainability among customers and simultaneously indirectly generated a demand for sustainability (Kapitan, Kennedy and Berth, 2019, p.86). The demand for sustainability derives from environmental concerns and customer attitudes towards green products (Jaiswal and Kant, 2018, p. 60). Although the communication on company's sustainability practices would be effective, the customers might not be receptive due to a lack of interest or unconsciousness towards environmental matters. In other words, the customers do not care whether the seller is acting responsibly or not.

Business customers form brand images about a company's brand through sustainable associations related to the brand that can also influence their behaviour (Bashir, 2020, p.4; Lin, Lobo and Leckie, 2017, p. 428). As an example, Jaiswal and Kant (2018) noted that customers with environmental attitudes tend to purchase green purchases more often, e.g., environmentally friendly, sustainable, or recyclable products. Additionally, the brand image is influenced by business customers' attitudes towards sustainability (Vesal, Siahtiri and O'Cass, 2021, p.325), which is then again stimulated by environmental concern (Jaiswal and Kant, 2018, p. 60). Vesal, Siahtiri and O'Cass (2021) define business customers' environmental attitude as the extent to how valuable and important companies' key decision-makers perceive environmental sustainability to be in general, and how favorable attitudes they have towards companies that perceived to be environmentally sustainable. Hence, the more importance the customer attaches to company's sustainability practices, the stronger positive effect it has on the perception of the company's brand.

Firms tend to find business partners and customers with a similar mindset, and with effective customer relationship management (CRM), firms establish strong relationships. With strong customer relationships, firms can more easily find customers that are interested in sustainability practices. Customers with an environmental attitude

perceive the sustainable practices implemented in the business operations to strengthen the practices' effectiveness that enhance the firm's sustainable brand image. (Vesal, Siahtiri and O'Cass, 2021, p. 325) However, according to a study by Kumar and Christodoulopoulou (2014, p.9-13), in the B2B setting, many supplier companies embrace sustainability activities, but these are not always perceived to have an influence on business customers' sustainability efforts or the bottom line. Therefore, B2B companies need to push their business customers more to promote sustainable, socially responsible buying in the market to make sustainability a common practice.

The study conducted by Vesal, Siahtiri and O'Cass (2021) supported the notion that business customers' environmental attitudes have a strengthening impact on the relation between brand image and market performance. The findings are presented in Figure 2.

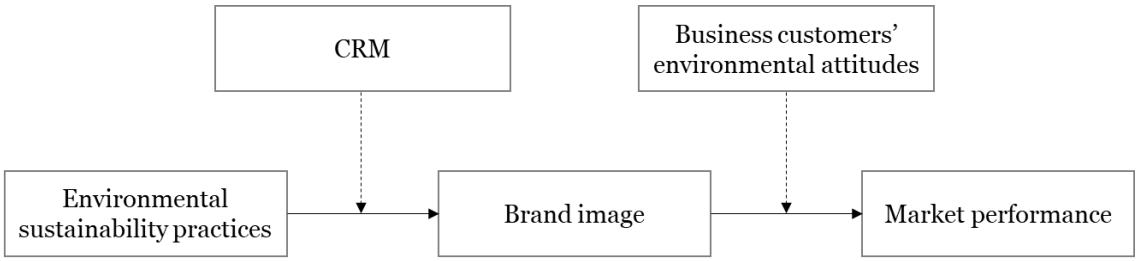


Figure 2 Strengthening B2B Brands by Vesal, Siahtiri and O'Cass (2021)

Olsen, Slotegraaf and Chandukala (2014, p.132) found that introducing a new environmentally sustainable product can change customers' brand attitudes. On the one hand, if the company has legitimacy and a strong brand image in sustainability, the environmental practices or green products are no longer effective for enhancing brand evaluation. On the other hand, customers' environmental attitude guides how they perceive the brand's sustainable associations and how strongly they affect the brand image (Vesal, Siahtiri and O'Cass, 2021). In both cases, negative reputation, e.g., environmentally harmful practices, negatively influence customers' perception of company's brand.

Business customers' awareness and attitudes towards sustainability influence the brand image and the way they perceive the brand. With strong customer relationship management, businesses can screen favourable customers interested in sustainability and adjust the congruency between businesses' sustainability practices and customers' expectations. By meeting customer expectations better than competitors in terms of sustainability, the company is most likely to have more sales and can set prices higher.

2.2.2 Mitigating effects of greenwashing on sustainability perceptions

A discussion has risen around greenwashing as, to an increasing extent, companies have expanded their environmental initiatives and communication on them to customers. Greenwashing is defined as a company's activities that engage in making unsubstantial or misleading claims regarding their products or services' sustainability (Lin, Lobo and Leckie, 2017, p.426). Communicating and implementing sustainability practices are fundamentally different matters. It is not always easy to evaluate a company's sustainable brand image and identify greenwashing. Although the identification has become challenging, environmentally aware customers can be surprisingly good at telling apart between companies who predominantly pay lip service to their advocacy on environmental sustainability from those who actually practice them in daily operations. (de Freitas Netto, Sobral, Ribeiro and Soares, 2020, p. 10; Vesal, Siahtiri and O'Cass, 2021, p.324). Environmentally unconscious customers are easier to win over with excessive and misleading marketing, which is not ethically acceptable.

To mitigate the risk company to be perceived as a greenwasher, Vesal, Siahtiri and O'Cass (2021) and Kumar and Christodoulopoulou (2014) highlight the importance of effective and credible communication about initiatives and outcomes of the company's sustainability practices that strengthen the brand image by improving its reputation among customers and stakeholders. Strong customer relationship management contributes to communication efficiency by delivering information more consistently and clearly (Vesal, Siahtiri and O'Cass, 2021, p.324).

Some companies practice greenwashing, which can result in an increase of sceptical attitudes among customers towards companies' products and services that are marketed to be green and increase the customers' risk perceptions (Lin, Lobo and Leckie, 2017, p.426). Therefore, greenwashing can affect the entire green market through customers' risk perceptions and resulting in a negative image of communicated sustainability messages. Lin, Lobo and Leckie (2017, p.427) argue that green perceived risk is associated with greenwash behaviour, and by affecting the creation of a green brand image, the risk reduces customers' perceived green benefits of the brand. In other words, the perception that a company might be guilty of greenwashing reduces the effectiveness of the green benefits that customers are seeking after.

Although the authorities regulate and monitor companies' environmental practices and performance, greenwashing still occurs. De Freitas Netto et al. (2020, p. 7-9) classified

greenwashing into a claim and executional greenwashing. The first classification covers claims that are vague and lack a clear definition, inaccurate or fabrication (no proof or third-party certification) or provide only a piece of information or a narrow set of attributes (usually the positive ones) that prevent evaluation of its validity or environmental impact. Moreover, the claim of greenwashing can be a combination of any abovementioned claims. (De Freitas Netto et al., 2020, p. 9; Tateishi, 2018) Some companies have used vegan or CFC-free labels to highlight environmental aspects in products that already meet the requirements, such as vegan make-up, and the use of CFC in products is prohibited by law. Kapitan, Kennedy and Berth (2019, p. 94) suggest that a greenwasher is an organisation that has low actual sustainable credibility and environmental impact but is perceived as high. The organisation seems to have a resource and energy-efficient operations, highly considering stakeholders and the community, while the reality is the opposite. Lastly, their environmental marketing strategy is based on sales in cost of environment and social matters.

The second classification is executional greenwashing, which refers to the execution of communication or advertising messages. Executional greenwashing doesn't use any claims apart from, e.g., using images with specific environment-associated colours and pictures of nature/landscapes (e.g., mountain, river), sounds of animals, renewable energy resources. (Parguel, Benoit-Moreau and Russell, 2015, p.108) Parguel, Benoit-Moreau and Russell (2015) research revealed that these nature-evoking elements had a misleading effect on customers. The study also revealed that in contrast to expert customers, the elements had created stronger perceptions regarding brand greenness among customers who were not conscious or expert on environmental aspects.

In the B2B market, there are a limited number of players operating on the market, and as such, a company's reputation spreads quickly in both good and bad ways (Blenkhorn and MacKenzie, 2017; Homburg, Stierl and Bornemann, 2013). Therefore, companies need to be more specific about sustainability matters in terms of what they say and do in order to remain credible and competitive in the market. Sincerely sustainable B2B suppliers can, for example, provide accurate and detailed information transparently regarding sustainability activities and show that sustainability is part of corporate strategy to mitigate the risk of being seen as greenwashers by the B2B customers.

2.2.3 Enhancing the sustainability associations

In both B2C and B2B settings, customers find it challenging to judge the credibility of sustainability claims and are afraid of being victims of greenwashing. As presented earlier, B2B customers are more risk-sensitive, especially when it comes to reputation, and therefore they do not have to afford any confusion regarding their sustainability practices. To lower the risks, B2B customers may be willing to pay higher prices (Backhaus, Steiner and Lügger, 2011). Although effective marketing communication about a company's sustainability practices is essential for the formation of brand image, it needs to be credible to win over customers' trust (Vesal, Siahtiri and O'Cass, 2021, p. 324).

To meet the buyers' and clients' expectations, B2B organisations need to understand what creates high or low sustainability value for them. Kapitan, Kennedy and Berth (2019) propose that superior sustainability positioning can be addressed under five themes: 1) sustainability credibility, 2) environmental impact, 3) consideration of stakeholders, 4) resource and energy efficiency, and 5) philosophy. Figure 3 presents the five factors and their constructs. Although Kapitan, Kennedy and Berth (2019) did not use the term “practices” explicitly to describe the constructs, they are regarded as initiatives or practices companies can implement to enhance their sustainable brand image. Sustainable practices vary between industries, and since the study will address sustainability practices in the real estate industry, a brief introduction with industry-related examples is provided. Falkenbach, Lindholm and Schleich (2010) suggest three drivers for environmental sustainability in the real estate sector from an investor perspective: external drivers (such as government incentives, legislation, energy certificates etc.), corporate level drivers (such as image benefits when considering environment and community, ESG & carbon disclosure) and property level drivers (such as green certificates, energy efficiency and indoor air quality). More detailed explanations of the five themes and their sustainability practices within the real estate industry examples are provided below.

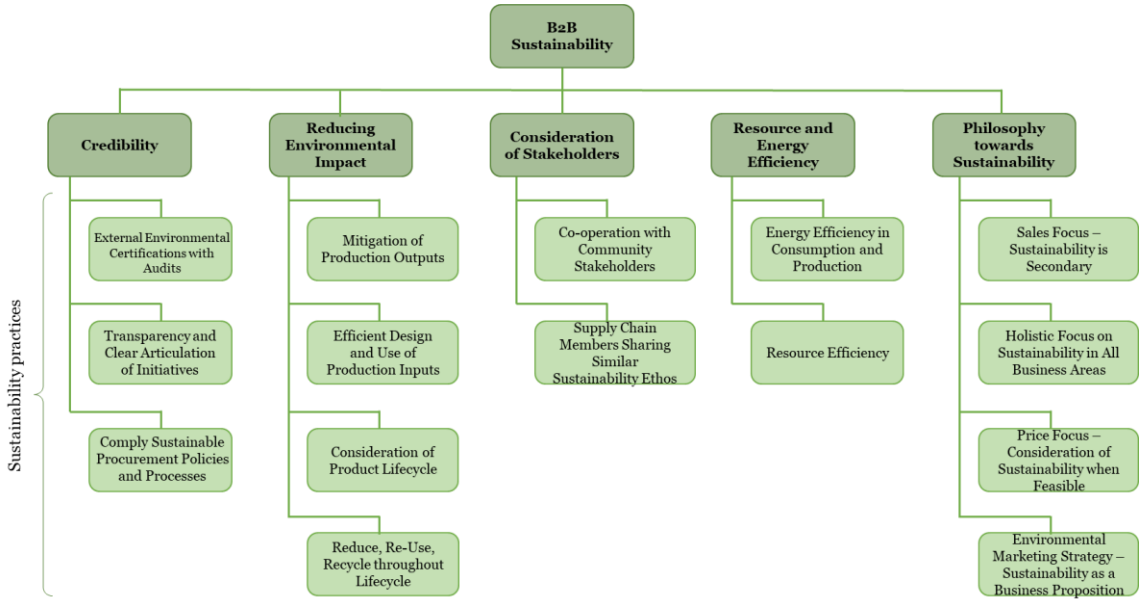


Figure 3 Framework of sustainability themes adapted from Kapitan, Kennedy and Berth (2019)

Credibility

According to Kapitan, Kennedy and Berth (2019, p.94), sustainability credibility refers to the fact that a firm's sustainability claims correspond to the performance outcomes of sustainable actions, i.e., transparency over greenwashing. A similar conclusion ended up by Chen (2010, p.312) revealing green brand image is positively associated with green trust, which is measured by the reliability of the brand's environmental commitments, the general trustworthiness of the brand's environmental argument and keeping promises for environmental protection. To increase the credibility of communication on sustainability practices, Blenkhorn and MacKenzie (2017, p. 1177) suggest giving results along with goals and implementation plans and providing an external assessment of initiatives or certifications (Kapitan, Kennedy and Berth, 2019). Additionally, companies can increase credibility by including a clear presence and articulation of a green procurement process and policy.

In the real estate industry, sustainable credibility can be achieved through external validation energy labelling and green building certifications such as BREEAM (Building Research Establishment Environmental Assessment Method) or LEED (Leadership in Energy and Environmental Design) (Green Building Council Finland, s.a; Falkenbach, Lindholm and Schleich, 2010, p.207). Moreover, as sustainability practices, companies can apply green procurement policies and periodically publicly report the company's environmental performance, such as carbon disclosure (Falkenbach, Lindholm and

Schleich, 2010, p.207). Furthermore, real estate funds can report their ESG performance through the GRESB assessment (Global ESG Benchmark for Real Estates). (Bauer, Eichholtz, Kok and Quigley, 2011, p. 35)

Reducing environmental impact

B2B companies must consider the operational environmental impacts caused by the company and its products. These are, for example, emissions, noise and air pollution, and carbon footprint as production outputs, which can be reduced with sustainable practices. The environmental impact can be affected through production inputs by designing products more efficiently or choosing recycled materials as well as thinking about the disposal of the product by the end of the lifecycle. (Kapitan, Kennedy and Berth, 2019, p.88)

The built environment has a significant environmental impact and requires resources and energy. The environmental impact can be decreased with thoughtful planning, building design, efficient use of materials, and active management. At the end of the building lifecycle, the renovation and reuse of materials should be considered instead of demolition to reduce waste. (World Economic Forum, 2016, p.12)

Consideration of stakeholders

B2B companies' activities are rarely limited to the company's internal stakeholders but also external ones. Therefore, the local and wider community affected by the company's activities should be considered (Kapitan, Kennedy and Berth, 2019, p.89). Empirical research by Kapitan, Kennedy and Berth (2019) also emphasised the importance of forming alliances with other businesses and suppliers that share the same ethos of being genuinely sustainable.

Consideration of stakeholders and community is also essential while planning and designing a built environment which is part of peoples' everyday lives. Different urban functions must operate together and promote a viable and safe environment. Moreover, acting together with community enhances the image of the operator (Falkenbach, Lindholm and Schleich, 2010, p.208).

Resource and energy efficiency

One significant sustainability factor is considered to be resource and energy efficiency, which aims to preserve the environment while generating cost benefits (Kapitan, Kennedy and Berth, 2019, p. 89). Energy is often produced through a process that

burdens the environment, but due to climate change to an increasing extent, energy production has been focused on more renewable energy solutions (Heard, Brook, Wigley and Bradshaw, 2017, p. 1122). Energy consumption can be decreased by improving operations in terms of energy efficiency, and resources can be used more efficiently by designing or favouring local materials (Kapitan, Kennedy and Berth, 2019, p. 89).

Buildings consume a notable amount of energy for heating and daily operations, hence energy efficiency and how the purchased energy is produced has a significant impact on the environment and emissions (Falkenbach, Lindholm and Schleich, 2010, p.203-204). Sustainability practices for energy production include building solar power panels on the roof of the building or changing heating to geothermal energy. World Economic Forum (2016) stated that surveys conducted by global consultancy companies in the real estate industry discovered that tenants are willing to pay higher rents for energy-efficient properties.

Philosophy towards Sustainability

Philosophy outlines the B2B company's attitude towards sustainability, influencing the perceived sustainability factors' effectiveness. Although revenues are a key focus of many businesses, they should not be aimed at the expense of the environment but rather in a way that reflects environmental considerations. The same philosophy can be applied when focusing on the price; companies should also include environmental and social aspects in purchases. The organisation's philosophy should holistically approach sustainability (i.e., environment, social and economic) in every business area. (Kapitan, Kennedy and Berth, 2019, p.90) Moreover, Kapitan, Kennedy and Berth (2019, p.90) denote that companies' propositions that include a proposition for sustainability are necessary to position the company as sustainability conscious in the marketplace. However, the proposition is not always followed as they may give such propositions, but the implementation of sustainability practices is not existent (Kapitan, Kennedy and Berth, 2019, p.90). In other words, sustainability must be part of strategy and company values.

The philosophy of sustainability has become a more prominent part of every area of organisations' operations in the real estate industry, which can be seen in companies' ESG strategies and marketing practices (World Economic Forum, 2016, p.13). Companies obtain branding and marketing benefits from occupying or investing in sustainable buildings (Falkenbach, Lindholm and Schleich, 2010, p.207-208), or developing their sustainability performance.

To conclude, the study by Kapitan, Kennedy and Berth (2019, p. 94) suggests a sustainability-wise superior organisation is perceived as highly credible and sustainable, and the company and the product have a low environmental impact. Moreover, the organisation highly considers stakeholders and efficiently uses resources and energy. Lastly, the most effective practice of the organisation's philosophy towards sustainability is integrating sustainability into every business area and its processes.

2.3 Market segmentation for sustainability

Companies must develop policies and effectively communicate their sustainable practices to pursue a credible and impactful sustainable brand image. Because customers form perceptions of a company's sustainability brand image based on their environmental awareness and attitudes, perceptions vary between preferred sustainable practices and are subjective. One tool that can be used to understand customer perceptions and identify effective sustainability practices for communication strategies is to determine customer segments. The customer segments are formed based on the observed or gathered data.

Several market segmentations have focused on a specific environmental issue and customer behaviour as determining domain. The most well-known climate change-related segmentation is *Global Warming's Six Americas* model, based on an extensive set of attitude-related factors. Six segments were positioned as a continuum to what degree a customer is concerned and engaged with climate change: Dismissive, Doubtful, Disengaged, Caution, Concerned and Alarmed. (Leiserowitz, Maibach, Roser-Renouf and Hmielowski, 2012) Regarding sustainable consumer behaviour and the degree of acceptance of climate change, Lippincott's (2007) study proposed six profiles for eco-conscious consumers: campaigners (willing to contribute but to be pessimistic regarding change), optimistics, followers, confused, unwilling and rejecters. Sütterlin, Brunner and Siegrist (2011) developed a model to profile consumers according to their energy consumption behaviour depending on their willingness and perceived ability to conserve energy. Also, Anable (2005) studied consumers' behaviour regarding travelling and transportation. As can be identified from the studies, environmental conscious influence environmental attitude. The consciousness and genuine interest towards sustainability issues can depend on culture and vary geographically, as Golob and Kronegger (2019) show.

Customer segmentation helps to determine the most effective marketing practices. Previous studies try to explain customers' behaviour and environmental attitude through segmentation to understand customers comprehensively. Although they have segmented customers based on their general attitude toward sustainability, segmentation models that address the importance customers attach to specific sustainability practices have not been much modelled.

2.4 Framework of business customers' preferences on sustainability practices

A company's sustainable brand image is formed through sustainability practices communicated to customers who create sustainability associations that are evolved in their minds. The formation of associations is influenced by the company's ability to communicate and the customer's environmental consciousness and attitudes. The purpose of this study's framework is to provide an understanding of the importance attached to different sustainability practices, willingness to pay and perception of the service provider's brand among different customer segments.

2.4.1 Summary of the literature on brand image in sustainability

Previous studies in B2B have explored how sustainable practices influence corporate brand image and performance and what role business customers' attitude plays in this relationship (Kumar and Christodoulopoulou, 2014; Vesal, Siahtiri and O'Cass, 2021). In other words, research has been focused on the process of brand image creation, how communication creates a corporate brand image and sustainability associations in sight of business customers. Less attention has been given to what degree the sustainability practices affect the corporation's sustainable brand image. Identification of the most critical sustainable practices regarding sustainable brand image guide companies to allocate their resources to marketing communication more effectively.

Figure 4 presents an overview of the literature on brand image formation and how different attributes influence the brand image. The figure illustrates the research scope and what previous studies by Kumar and Christodoulopoulou (2014), Vesal, Siahtiri and O'Cass (2021), Kapitan, Kennedy and Berth (2019) and Jaiswal and Kant (2018) have addressed around the topic. The focus areas are bolded in Figure 4. The arrows reflect the connection between attributes and their influence on the brand image.

The research scope of this study is the business customer perspective (the B2B) regarding sustainability demand in creating a brand image and how customer attitudes influence

the demand for sustainability (willingness to pay for sustainability). General market demand for sustainability, such as new regulations, emission targets, the EU TSA and the preferences of business customers direct corporate's sustainability practices and influences a corporation's brand image. Some companies that value sustainability highly are prepared to pay a premium for sustainability (Backhaus, Steiner and Lügger, 2011). Generally, the willingness to pay for a premium indicates the perceived *importance of sustainable practices*.

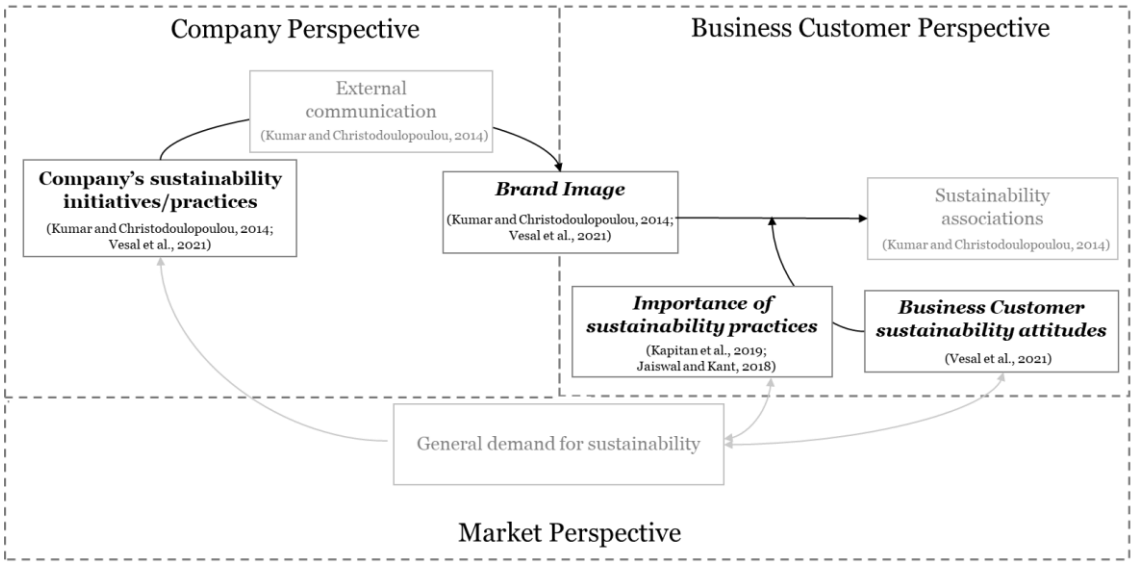


Figure 4 Summary of existing literature and scope of this research

2.4.2 Framework for sustainability practices

The literature review presented the creation process of corporate brand image influenced by customers' attitudes and awareness of sustainability. This research investigates business customer demand for different sustainability practices based on their environmental attitudes and perceptions of the company's brand image in sustainability. The framework for the research approach to address the presented research questions is depicted in Figure 5.

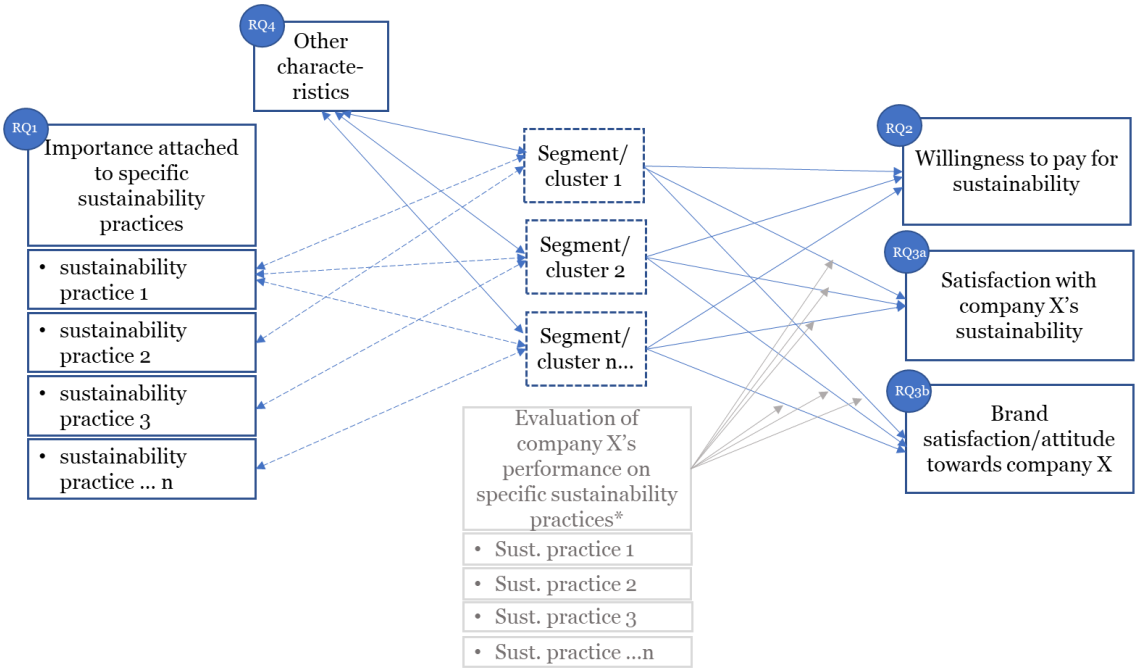
The first research question (*What customer segments exist in the B2B real estate market, in terms of importance customers attach to different sustainability practices?)* is explored through five themes of sustainability introduced by Kapitan, Kennedy and Berth (2019). However, regarding the first theme of "sustainability credibility", the category is changed to external validation to be more suitable in terms of study sample from the real estate industry. Therefore, the categories are 1) external validation (originally sustainability credibility), 2) environmental impact, 3) consideration of

stakeholders, 4) resource and energy efficiency, and 5) philosophy. Different sustainability practices are categorised under these themes and ranked according to the importance customers attach to each one.

Customer segments are formed based on the importance they attach to different sustainability practices to answer the second research question *(Which B2B customer segments have the highest vs. lowest willingness to pay for sustainability?)*. Based on the segmentation, customers' willingness to pay for sustainability is explored. The survey results are compared between different segments and how different sustainability practices influence the willingness to pay inside the segment.

The third research question is twofold (*Which B2B customer segments have (a) highest vs. lowest satisfaction with a given service-provider brand's sustainability overall, and (b) highest vs. lowest brand attitude and satisfaction?)*. As emphasised, the customers' environmental consciousness influences the perception of the brand's overall sustainability and brand evaluation. The preferred sustainability practices resonate with the overall satisfaction of the company's brand image and sustainability. The customer's brand attitude is affected by the importance and performance associations related to sustainability practices. Furthermore, the evaluation reflects the satisfaction towards the company in terms of sustainability. Customer segments were explored based on satisfaction with the company's sustainability, attitude towards the company, and the importance of specific sustainability practices. In fact, customers also create an evaluation of company's performance on specific sustainability practices that reflects on satisfaction with company's sustainability and brand attitude. This is based on classical attitude theory, the stronger belief customer has company's performance on sustainability practices, the greater is the expected contribution to be on overall attitude (Ajzen & Fishbein, 2000, p.6). These constructs highlighted in grey colour are presented in Figure 5. However, this is not measured in this research because it would have made the survey longer and require more effort from participants.

The customer companies that participate in the research also have other characteristics that should be taken into consideration while determining customer segments. Identification of other characteristics of customer segments, the fourth research question (*Which background characteristics characterize the customers in the different segments?)* is aimed to answer.



** Present empirical study does not focus on constructs highlighted with grey colour.*

Figure 5 Research Framework

The aim is to research what sustainable practices business customers find valuable that enhance a company's sustainable brand image and to what extent customers' sustainability attitudes influence this.

3 METHODOLOGY

This chapter presents the methodology and justification for procedures undertaken to conduct the empirical research. First, the introduction of the research design is provided, followed by the description of the sampling strategy and data collection, including the questionnaire design. Further on, data analysis and the quality of data are discussed. Lastly, the chapter covers ethical concerns related to this study.

3.1 Research design

The empirical part aims to understand business customers' preferences for a company's sustainability practices and their willingness to pay for sustainability. Previous research on the topic has collected empirical data using qualitative and quantitative methods. Kapitan, Kennedy, and Berth (2019) have used extensive research on sustainability through interviews of supplier companies' marketing managers and numeric surveys using Likert scaling for industrial company managers and buyers. Vesal, Siahtiri and O'Cass (2021) focused on a quantitative survey of production and sales managers of manufacturing companies and their business customers.

This research explores companies' preferences of sustainability practices, willingness to pay and their brand evaluation, and based on the importance attached to sustainability practices, aims to identify customer segments. The study has both deductive and inductive characteristics. Previous research and theory show that relationship might exist between the research constructs and in which different customer segments may exist. In that sense, this research is deductive. However, the data is explored without prior hypotheses, to discover the nature of relationship and customer segments to develop the theory, which results from the research having inductive characteristics. Quantitative research is considered as an appropriate method because it explores the extent and degree of (correlational) relationships between concepts, constructs or variables (Saunders, Lewis and Thornhill, 2016, p. 166). The purpose of research is also to explain these relationships and identify characteristics among different customer segments. Additionally, a quantitative survey is one of the common quantitative methods for descriptive-explanatory research that examines attitudes, opinions and their relationships (Saunders, Lewis and Thornhill, 2016, p. 181-182). In this study cross-sectional up-to-date data about contemporary opinions and attitudes are pursued, which is also often used as a survey strategy (Saunders, Lewis and Thornhill, 2016, p. 200).

In data analysis, a quantitative survey provides the possibility to explore the importance of different sustainability practices through closed-end questions, with numeric response options (on a bipolar scale). A survey enables the collection of a larger sample size than, for example, interviewing, in a shorter period of time. Moreover, the survey responses can be analysed by using quantitative methods to identify the most and least important practices and the correlations between the constructs. For further studies, qualitative research can be used to obtain in-depth meanings behind preferences.

3.2 Sample

The purpose of sampling strategy is to reduce the amount of data needed to collect and to focus on only data from a subgroup. The selected sample must be chosen so that the research questions can be answered. (Saunders, Lewis and Thornhill, 2016, p.274)

Since this research focuses on exploring the topic in a B2B setting, the target population consists of business customers in the business premise leasing market. The sampling frame consists of Nordic business customers who have leased a business or office facility from a company that is a professional real estate owner. Therefore, the units of analysis are business customers' representatives who know premise-related matters and possess a B2B perspective. Probability or representative sampling is usually associated with a survey research strategy (Saunders, Lewis and Thornhill, 2016, p.276). However, since this research sample consists of business' customer representatives that are customers of a Nordic company and can be accessed conveniently, the research holds a convenience sample. The sampling frame was 203 company representatives responsible for leasing premises or premise negotiations. The survey response rate was 45 %, and the total number of responses was 91. The majority of the sample consisted of businesses with office facilities, of which minority have rented a small retail space, such as a hairdresser or dentist.

The sample consists mainly of micro, small and medium-sized companies, and a few large companies. The companies can be categorised according to their size into micro companies with 1 to 9 employees, small companies with 10-49 employees, mid-size companies with 50 to 249 employees, and large companies with over 250 employees (Eurostat, s.a.). The majority of premise locations in the sample are from Finland, with smaller sample from Denmark and Sweden, and the least from Norway.

3.3 Data collection

The empirical data was collected through a quantitative online survey. While most of the survey questions were closed-end questions with numeric response scales, there was also one qualitative, open-ended question in which respondents could explain their perspective in their own words if they wanted to. Due to limited time and resources, the quantitative method is appropriate when there is a large amount of data or respondents. In this research, the dominant role was appointed to quantitative questions that used the Likert scale or bipolar scales or were multiple choice questions. A third-party service provider conducted the survey through an online platform named "questback". The responses are exported from the platform into the Microsoft Excel format and later imported to SPSS.

The survey was sent to 203 business customers who have leased business premises in Nordic countries. These survey questions were part of a more extensive tenant satisfaction survey. The respondents were notified of sufficient data privacy and usage matters. To ensure respondents understand the survey questions and minimise respondent errors, they could choose the survey language between Finnish, Swedish, Norwegian, Danish, and English.

The survey included three background questions and six questions relevant to this study, which are presented in Table 1. In addition, the survey included 37 questions not relevant to the present study (focusing on questions not related to sustainability, such as the functionality of the premise, tenancy relationship, and facility services). The importance of “sustainability practices” addressed in RQ1 was measured by asking respondents “How important the following sustainability practices at the property are to your company?” for 12 sustainability practices, respectively. Responses were measured on a five-point scale: 1= “Not important” … 5= “Very important”. The response alternatives were defined based on the literature. RQ2 focused on the willingness to pay and was addressed by the question, “Would your company pay a premium for your premises/office space to reduce its negative environmental impacts?”. The answer was measured by four alternatives: 1) Yes, 2) Yes, but only if we see benefits in our service charges/energy bills, 3) No, and 4) Do not know. RQ3a covered the satisfaction with the landlord’s responsibility and sustainability practices and was measured by the question, “What is your satisfaction regarding the landlord's current responsibility and sustainability practices?”. The landlord brand image addressed by RQ3b was measured by asking respondents, “Rate your satisfaction with the company's image as a landlord”.

Responses to both questions were recorded on a five-point scale: 1 = ”Very dissatisfied” … 5 = “Very satisfied”. Besides the main questions, the survey included a background question to identify the business customer's country and city. Moreover, the company size data was collected from the Orbis database and the type of leased space from the landlord company’s database. RQ4 addresses the other characteristics of companies. The open-ended question was *What kind of expectations do you have regarding the landlord's current responsibility*.

Table 1 Survey questions

Background questions (RQ4)	Name of the company you represent. In which country your premises/office space is located? Select your premises/offices address from the list.	Open text Drop down list Drop down list
RQ3b	Rate your satisfaction with the company's image as a landlord.	Bipolar scale (1-5): 5 - Very satisfied /1 - Very dissatisfied
	How important are sustainability issues (environmental, social, good governance) when making decisions regarding facilities?	Bipolar scale (1-5): 5 - Very important /1 - Not important
RQ3a	What is your satisfaction regarding the landlord's current responsibility and sustainability practices?	Bipolar scale (1-5): 5 - Very satisfied /1 - Very dissatisfied
RQ1	How important the following sustainability practices at the property are to your company? A. On-site generated renewable energy (e.g., solar) B. Energy efficiency and related renovations C. Electric car charging D. Good recycling opportunities E. Indoor air quality (e.g., efficient ventilation, thermal comfort) F. Providing facilities for light transportation (bike racks, showers) G. Promoting biodiversity in outdoor spaces H. Monitoring energy and water consumption and sharing the data with tenants I. Green building certification of the property (e.g., BREEAM, DGNB, Nordic Swan) J. Landlord's objective is to be carbon neutral K. Guidelines for sustainable procurement and favour sustainable alternatives L. Guidelines/newsletters for tenants on how to use the premises responsibly (e.g., saving energy, recycling) M. Other, what?	Bipolar scale (1-5): 5 - Very important /1- Not important
RQ2	Would your company pay a premium for your premises/ office space to reduce its negative environmental impacts? A. Yes, my business would B. Yes, but only if we see benefits in our service charges/energy bills C. No, my business would not D. Does not know	Choice of one option

The sustainability practices included in the question '*How important are the following sustainability practices at the property to your company?*' (altogether 12) were identified on the basis of the five themes listed by Kapitan, Kennedy and Berth (2019), presented in Figure 6.

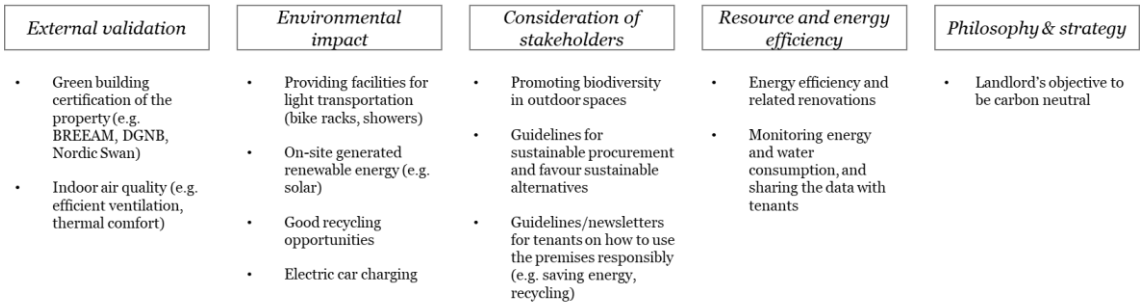


Figure 6 Categorised sustainability practices

The personal or sensitive data of respondents were not collected, except for the address where their business premises are located. Disclosing the company name was optional. Based on these known background data, the size of the company was determined from the Orbis database.

The survey was sent to a chosen sample of company representatives via email in the second week of September 2022. After two reminders, the online form was closed at the end of September. The survey response rate was 45%, equal to 91 answers.

3.4 Data analysis

When collecting a large amount of data through a survey, it is relatively common for respondents to leave questions blank, resulting in missing values. This can result from an error on the survey platform or participant error. Due to the fact that there was no option to delete the missing values of sustainability practices without having an impact on the analysis and the degree of missing values was relatively low, the replacement values were defined from the known data to estimate missing data. According to Hair et al. (2018, p.68), a widely used and simple method is mean substitution, but it requires a low degree of missing data but provides unbiased data. The missing data of the sample is around 10% on variables, but as an exception on green building certifications, it is close to 20%. Due to easiness and time restrictions, the mean substitution was chosen as the imputation method. A total of 120 values were replaced with mean substitutes on sustainable practices that consist of 12 variables. Because the variable green building

certifications had more missing values than other variables, the results of principal component and cluster analysis should be considered with caution.

The questions related to B2B customers' willingness to pay for sustainability did not have any missing values, while satisfaction with landlord sustainability practices and the brand image appeared to have around 50% of missing values or responses marked as "Do not know". Due to the relatively high degree of missing values or responses without opinion, mean replacement was considered to bias the results excessively. Hence, only the cases which had a missing value in these variables were considered when the RQ2 and RQ3 were explored (pair-wise deletion).

After consolidating the data set without missing variables, the data was analysed using SPSS software. To get a basic understanding of the data and the relationships between variables, a descriptive analysis was conducted. The results of the descriptive analysis are presented in section 4.1. Since the survey questions were closed-end questions with numeric scales, no outliers exist. To explore internal consistency (e.g., reliability), Cronbach Alpha is applied to components resulting from Principal Component Analysis.

To address the research questions, the data analysis was conducted using Principal Component Analysis to reduce the number of variables, Cluster analysis to identify different customer segments, and cross-tabulation (and related chi-square tests) to explore the relationships between variables and segments. The idea of principal component analysis is somewhat similar to factor analysis. Generally, factor analysis assumes that latent factors exist, and the purpose is to reduce the number of variables or cases to establish summarised data sets with similarities (Hair et al., 2018, p. 124), while principal component analysis identifies composites from observed variables. Because the research does not state any hypotheses needed for confirmatory analysis, the applied principal component analysis is exploratory. In other words, the purpose of the component analysis is to define a small set of components representing the original set of variables. As stated before, the sample size is sufficiently large for factor analysis, Hair et al. (2018, p.133) suggested a minimum of 5 cases per variable, but a more preferable ratio would be a 10:1 ratio. When conducting a principal component analysis for sustainable practices, altogether 12 variables, the sample size of 91 is halfway between a minimum of 60 and a preferable level of 120. After determining the principal components, cluster analysis is applied. The purpose of cluster analysis is to uncover hidden relationships between variables and classify data into meaningful groups (Hair et al., 2018, p.193).

3.5 Quality of the research

The purpose of quality assessment is to indicate the trustworthiness and repeatability of the study, to what extent results would be similar and what variables affect empirical data (Wallendorf and Belk, 1989). The study's trustworthiness can be addressed through credibility, reliability and validity (Saunders, Lewis and Thornhill, 2016; Wallendorf and Belk, 1989).

Reliability

Internal reliability or dependability indicates replication and the ability of another researcher to conduct the same research and end up with similar results. Dependability can be examined by conducting research with multiple researchers. (Saunders, Lewis and Thornhill, 2016, p.203; Wallendorf and Belk, 1989) Although only one researcher conducted this research, the method and analysis descriptions as well as questions (in Table 1), are presented in detail, and data is objectively collected and logically analysed. Therefore, there is a good structure for conducting the research again and getting similar results. The participant errors are aimed to be reduced by allowing participants to choose the response time during the given research time frame (Saunders, Lewis and Thornhill, 2016, p.203). Moreover, allowing participants to answer anonymously steers them to respond truthfully.

External reliability or transferability refers to transferring the principles of research into a new setting while the findings are still applicable in another context. The research process and interpretation of results have been conducted in logical sequence, providing a transparent way for others to evaluate the results. (Saunders, Lewis and Thornhill, 2016, p.203) Since the questionnaire consists of closed-end questions with numeric response scales, the interpretation of answers is relatively straightforward, and researcher errors are minimised. To increase interpretation, the respondent can provide reasoning behind the given score in the free text field. Although the survey achieved a high response rate of 45% (usually around 10% in customer surveys), the sample size might be an issue that the results would be replicable.

Validity

Validity can be in the form of internal or external validity. It refers to the appropriateness of used measures, the accuracy of result analysis, and the findings' generalisability. Internal validity or credibility can be established by proving that a set of questions are

statistically associated with an analytical factor or outcome. Some threats may influence the internal validity, such as participants may think that the answer may lead to future consequences for them, or the clarity of cause and effect of response is vague. (Saunders, Lewis and Thornhill, 2016, p.202-204) There is a threat that needs to be acknowledged relating to the question of willingness to pay. The participants may knowingly reply dishonestly to the question as; if they respond, they are willing to pay a premium for sustainability, which might give the landlord a reason to increase rents. The previous literature was carefully analysed to identify the key relationships between different variables, and the questionnaire is designed to comply with the theory. This enhances the content validity of the research.

External validity refers to the generalisability of the findings and whether they are relevant in other contexts and groups (Saunders, Lewis and Thornhill, 2016, p.204). The sample is selected from the target population consisting of individuals who are company representatives responsible for business facility-related matters. In the given context, the population represented wide range of different B2B customers, and the company sizes also correspond the distribution of businesses in the market. Although the companies' sizes vary, selection bias must be acknowledged. The sample of companies to whom the survey is sent consists of mainly mid-size companies and the least number of large companies, which may affect the size variation of companies responding to the survey. However, this represents the population quite well, and reduces the risk of sampling bias. Moreover, companies' sizes may reflect a divergence related to knowledge and interest towards sustainability matters, so information bias may occur.

The study findings represent B2B customers' general interest in sustainability in the real estate leasing market. The findings can also be extended to the construction industry to attract specific B2B customers or investors. The results might be transferable to other real estate markets outside the Nordics but can be culturally affected if the preferences and awareness regarding sustainability are different. Because the sustainable practices are real estate industry-specific and the sample is B2B customers of a specific company, it is not self-evident that the results are applicable to another company's customers or another industry. Moreover, as the results represent B2B customers' general interest towards sustainability, the customer segmentation definitions can be reflected in other industries to screen potential customers with caution.

To improve the reliability and generalisation of the findings beyond the real estate context, the study should be conducted with a larger sample set and in different sample

populations, for example, middle-Europe, to validate the findings. Moreover, there could be used triangulation to confirm the validity and credibility of research data (Saunders, Lewis and Thornhill, 2016, p.207)

3.6 Ethical concerns

The responsibility of researchers is to address problems and contribute to open science practises by doing public good and helping the community (Humphreys, Lewis, Sender and Won, 2021, p.860-861). Regarding the research objective, it is necessary to determine that only the relevant information for the study is collected. Participation in this study is voluntary, and participants have been informed that response data will be analysed. Their privacy is respected (also providing an option to answer anonymously), which is a few ethical principles when conducting research (Saunders, Lewis and Thornhill, 2016, p. 243-245). Another essential principle is that research design should not subject those participating in the research to embarrassment, pain or harm (Saunders, Lewis and Thornhill, 2016, p. 201) which was also followed.

The data collection method and analysis are described in as detail as possible to prove the integrity and objectivity of the researcher. Description of data and report of findings are presented in a way that individual responses or company names are not revealed. (Saunders, Lewis and Thornhill, 2016, p. 243-244) Because the research studies perceptions and opinions of companies' representatives, other identifier information than the responder's company name, address and contact information is not collected. The contact information was kept separate from the rest of the data. Therefore, the questions do not cover sensitive data.

4 EMPIRICAL FINDINGS

First, the data description and the basic assumptions of multivariate data techniques are presented. Then the principal component analysis and cluster analysis results are performed, and RQ1 is addressed. RQ2, RQ3 and RQ4 are explored through cross-tabulation. Lastly, a descriptive summary of customer segments is provided.

4.1 Results of descriptive statistics

Before starting multivariate data analysis, a basic understanding of the data needs to be achieved by conducting a descriptive analysis. The normal distribution of data variables is explored through skewness and kurtosis. Skewness is a measure of data distribution symmetry distribution, and kurtosis measures whether the data is heavily or lightly tailed (Hair et al., 2018, p. 94).

A total of 91 business customers participated in the survey. Most of the answers were received from Finland, and most business customers' companies are micro or small-sized enterprises. The distribution of data is presented in Table 2. The data regarding the size of a company is positively skewed (1,041 skewness) with positive kurtosis (0,652 kurtosis), indicating that the distribution is skewed to the right and has a peak. In other words, the distribution is uneven, and more small companies exist in the sample than large companies.

Table 2 Profiles of survey participants

Country	Frequency	Percent	Company size	Frequency	Percent
Finland	52	57,1 %	1-9 employees	38	41,8 %
Denmark	19	20,9%	10-49 employees	39	42,9 %
Sweden	19	20,9 %	50-249 employees	8	8,8 %
Norway	1	1,1 %	over 250 employees	6	6,6 %

The business customers were also divided into the type of their business premises because some were clearly in office use while others could be considered to also have retail characteristics. Altogether there were 21 with a mix of office and retail use, for example, dentist offices, hairdresser salons and other small businesses that provided services. Notable is that these were almost all micro businesses.

The participants were asked what importance they attach to certain sustainability practices on a scale of 1 to 5. Table 3 presents the mean, median, mode, skewness, kurtosis and standard deviation at a 5% significance level.

Table 3 Importance attached to different sustainability practices

Sustainability practice	Mean	Median	Mode	SD	Skewness	Kurtosis
Indoor air quality	4,535	5,000	5,0	0,8259	-2,292	6,106
Good recycling opportunities	4,265	5,000	5,0	1,0337	-1,687	2,587
Energy efficiency and renovations	4,048	4,000	5,0	0,9417	-1,001	1,022
Facilities for light transport	4,023	4,000	5,0	1,0850	-1,009	0,361
Guidelines for sustainable procurement	3,852	4,000	4,0	1,0232	-1,271	1,845
ESG guidelines for premise use	3,767	4,000	4,0	1,0400	-0,656	0,041
Monitoring and sharing energy and water consumption data	3,687	4,000	5,0	1,2104	-0,779	-0,085
On-site generated renewable energy	3,646	3,646	4,0	1,0224	-0,600	0,287
Promoting biodiversity in outdoor spaces	3,610	3,610	3,0 / 4,0	1,0766	-0,597	0,090
Landlord's objective to be carbon neutral	3,544	3,544	4,0	1,1333	-0,722	0,151
Green building certifications	3,408	3,408	3,0	1,1311	-0,635	0,191
Electric car charging	3,115	3,115	4,0	1,3742	-0,245	-1,094

All the variables are skewed to the left, and logarithmic transformation offers no solution for the problem. The variables *Indoor air quality* and *Good recycling opportunities* had the highest median and mode with a score of 5. The data distribution of both variables is highly peaked and skewed to the left, with the median and mode responses towards score 5. The *Indoor air quality* had the highest mean of all variables, while the variable *Good recycling opportunities* had the second highest mean. The majority of responses (e.g., 82,4%) regarding good recycling opportunities scored over four as important. The third highest mean was *Energy efficiency and renovations,* which reflects the current world situation of increased prices in energy. When looking at the data distribution, the scores are divided relatively equally between 4 and 5.

The following variable, *Facilities for light transportation*, has a mean of around 4, and the data is slightly above the normal distribution peak. Variable *Guidelines for sustainable procurement* have a mean of 3,85, with a relatively large number of scores given for 4 (39,6%) and 5 (25,3%). Next, Guidelines *for sustainable and responsible use of premises* have a similar mean, 3,77. The answers are quite equally distributed between scores 3 to 5, while scores 1 and 2 comprised 11 % of the answers.

In the middle, the sustainable practice table places *Monitoring and sharing energy and water consumption data*. Although the mode is 5 (30,8%), the mean is 3,69, implying that data distribution is flat and contains variation. *On-site generated renewable energy* has a mean of 3,65, and only 11% of answers cover scores 1 and 2. The next variable, *Promoting biodiversity in outdoor spaces*, has one-fifth of the answers with scores of 3 and 4, resulting in a mean of 3,61. Variable *Landlord's objective to be carbon neutral* is similar and has a mean of 3,54. The scores are relatively equally divided between scores 3, 4 and 5, and scores 1 and 2 comprise 14,3% of total scores.

The second last variable among sustainable practices is *Green building certifications*. The mode for this variable is 3,0 while the mean is 3,41, indicating variation among data. The responses are quite evenly distributed between the scores, but the data skewness leans slightly to more on the left, creating a light peak on the higher score side. The last variable *Electric car charging,* had the most variation and answers with scores 1 (19,8 %) and 2 (11%). Moreover, there was an almost even number of responses between scores 4 (23,1%) and 5 (18,7%). The variable's distribution slightly leans towards the higher scores and is flat-shaped.

Next, the descriptive analysis is done for the remaining questions concerning customers' willingness to pay for sustainability, the importance customers attach to sustainability issues when making facility relating decisions, image as a landlord, and satisfaction with the landlord's sustainability practices. Regarding *the willingness to pay for sustainability*, only 3 answered *Yes* (3,3%), and 24 (26,4%) would be willing to pay if they also benefit in cost. Thirty-two participants answered *No* (35,2%), while the remaining 32 (altogether 35%) did not know what to answer. The pie chart in Figure 7 shows the results. The responses between Yes, No and Does not know are relatively equally diversified.

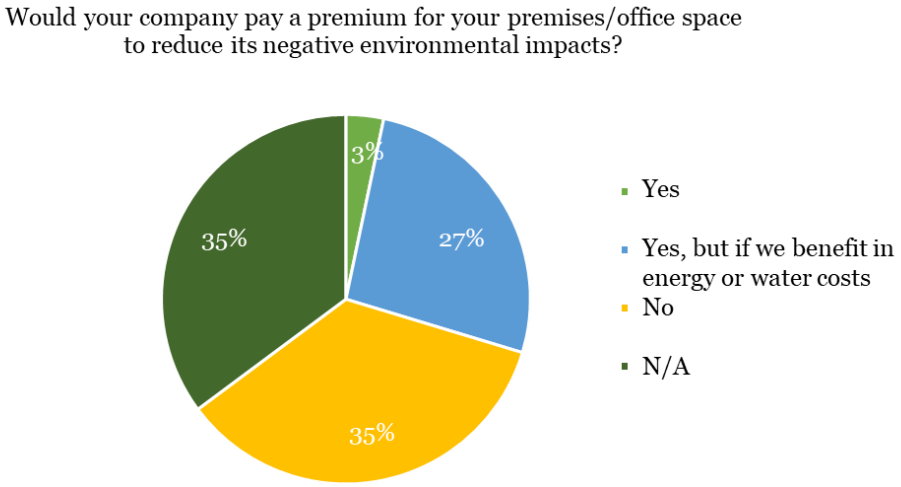


Figure 7 Results of willingness to pay for sustainability

The same applies to the variable *Image as a landlord* with negative skewness (-0,556) with negative kurtosis (-0,619), indicating that the majority of the responses are satisfied or very satisfied. The pie chart in Figure 8 shows how satisfied business customers are with the landlord's image. The scores 4 and 5 cover 55,1% of total results quite equally. Scores 1 and 2 comprise both 10,2%. Any imputation method to cover the missing values (42 in total) is not used to retain the quality of data. These missing values are excluded from the picture.

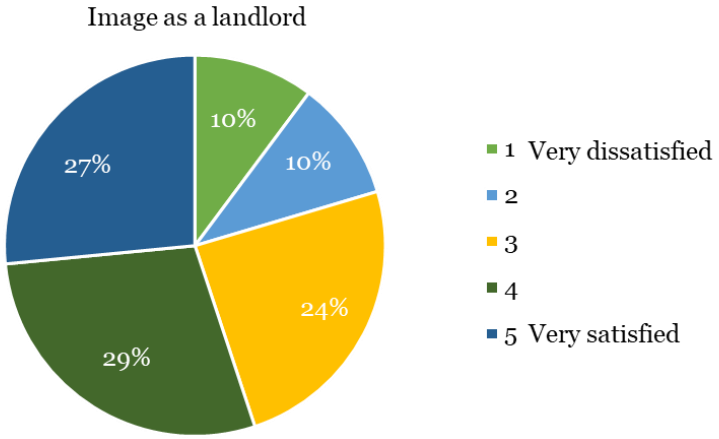


Figure 8 Results of the image as a landlord

Next, satisfaction regarding the landlord's current responsibility and sustainability practices was analysed descriptively. The pie chart in Figure 9 presents the distribution of answers. The missing values (50) are excluded from this data presentation. The data distribution has negative skewness (-1,075) with positive kurtosis (1,599), indicating that responses were concentrated on the larger values, on the right-hand side of the scale and

have a peak. The least number of answers were given for scores 1 and 5, while scores 3 and 4 comprised 31,6 % and 47,4% of results.

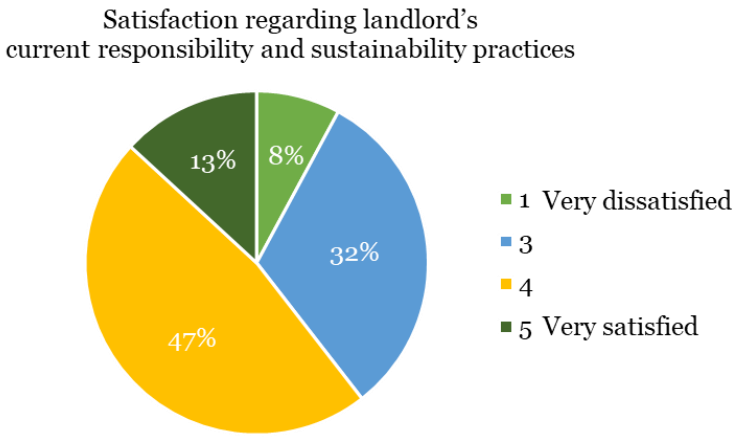


Figure 9 Satisfaction regarding landlord's current responsibility and sustainability practices

The last question measured the business customers' attitudes towards sustainability and their importance to sustainability practices when making decisions regarding facilities. The variable is negatively skewed (-1,008) with positive kurtosis (1,223), concentrated on the larger values of the scale and sustainability is perceived as important in facility-related decision-making. Score 5 received 28,6% of total scores, while score 4 was the most frequent at 47,6%. Only 9,2% perceived sustainability as not important or having low importance. From this can be concluded that the majority of participants perceive sustainability matters as important.

The survey contained one open-ended question where participants could explain what responsibility-related actions are expected from the service provider. The answers mainly covered the improvements in recycling and the importance of energy efficiency and sustainable resource use. These are aligned with the question regarding sustainability practices.

As can be seen from the statistics, the data distribution does not strictly meet the requirement for normal distribution, as the majority of variables are skewed to the left (with responses concentrated on the larger values). However, almost all except the variable *Indoor air quality* (although barely in the limit) are between -2 and 0, and hence, the distributions are normal enough for statistical tests (George and Mallery, 2010). After the initial high-level analysis regarding normality, a deeper analysis is carried out with the Kolmogorov-Smirnov test. Expectedly, Kolmogorov–Smirnov

statistics suggest a violation of normality for each variable of sustainability practices at <0,001 significance level except the I*mage as a landlord* resulted in a little bit higher at a p-value of 0,003. Principal component analysis (PCA) estimates characteristics of the components defined by the entire population derived from a data sample and assumes that inference should be made on data that is at least approximately multivariate normal (Demšar, Harris, Brunsdon, Fotheringham and McLoone, 2013, p.109). Demšar et al. (2013) emphasise that although there is a given limitation for PCA, it is not often followed because, in reality true multivariate normality is rarely encountered. PCA is rather a descriptive methodology than an inferential one, as it produces information regardless of whether the variables are normally distributed (Demšar et al., 2013, p.109; Jolliffe, 2022, p.339). Therefore, PCA was also utilized in this study, despite the skewness and non-normality of the data. Moreover, according to Pallant (2010), this kind of skewness is normal in social sciences. It does not imply a fault in measurements and analysis but represents the nature of the measured construct (Pallant, 2010).

In this study, the skewness was expected due to respondents consistently answering towards on extreme of the scale. This is because the topic of sustainability is generally perceived positively, and companies' strategies may include some sustainability targets. Hence, no mitigating actions for skewness were taken as the result was not considered faulty, but they were instead an indication of the natural behaviour of business customers under study. Lastly, normal probability plots were analysed, showing that the values of variables were relatively linear, and they did not differ radically from the expected normal line. Moreover, detrended normal probability plots did not show clustering signs. To conclude, there was no reason to remove any cases and analyses conducted with the initial data set, which distribution is at an acceptable level for PCA.

4.2 Customer segments formed by the importance of sustainability practises

4.2.1 Correlation analysis

Pearson correlation was conducted to understand better the relationships between variables. The results are shown in Table 4, Correlation Matrix below. In general, there are significant correlations between variables. Also, some variables have high variation in the types of answers given. very divided. Variables Carbon neutral objective (10), Guidelines for ESG procurement (11. GL: ESG Procurement) and Guidelines for sustainable premise use (12. GL: Sust. Premise Use) seem to have relatively high correlations with each other. Electric car charging (3) seems to have a relatively low

correlation with the other variables. All variables fall under the theme of sustainability, and therefore, correlations were expected to occur.

Table 4 Variable Correlation Matrix

Variable name	#	1	2	3	4	5	6	7	8	9	10	11
Renewable energy	1	1										
Energy efficiency	2	0,600**	1									
Electric car charging	3	0,375**	0,206	1								
Good recycling opp.	4	0,580**	0,701**	0,372**	1							
Indoor air quality	5	0,463**	0,647**	0,333**	0,785**	1						
Light transp. Facilities	6	0,480**	0,477**	0,1376	0,394**	0,470**	1					
Biodiversity outdoor	7	0,502**	0,561**	0,260*	0,526**	0,445**	0,562**	1				
Monitor & share data	8	0,488**	0,640**	0,320**	0,567**	0,445**	0,456**	0,565**	1			
Green certifications	9	0,499**	0,534**	0,348**	0,480**	0,455**	0,492**	0,615**	0,587**	1		
Carbon neutral obj.	10	0,539**	0,606**	0,333**	0,623**	0,502**	0,431**	0,551**	0,568**	0,679**	1	
Gl: esg procurement	11	0,650**	0,671**	0,353**	0,607**	0,525**	0,544**	0,567**	0,655**	0,649**	0,771**	1
Gl: sust. Premise use	12	0,440**	0,544**	0,260*	0,582**	0,551**	0,369**	0,482**	0,603**	0,606**	0,669**	0,724**

***. Correlation is significant at the 0.01 level (2-tailed).*

**. Correlation is significant at the 0.05 level (2-tailed).*

4.2.2 Principal Component Analysis

Principal component analysis (PCA) and factor analysis have similarities since they both are used to identify inter-relations of variables between groups and reduce the number of variables (Hair et al., 2018, p.129). The exploratory PCA is suitable for this research because variables are highly correlated, and the method aims to regroup the variables into fewer components. The PCA is conducted with Varimax rotation, which makes interpreting the emerging components easier and assumes that components are not correlated by maximizing the high and low loadings of components. This simplifies the relationship between components for analysis.

The analysis returns Kaiser-Meyer-Olkin Measure 0,89 indicating that the sample is suitable and adequate for the analysis (e.g., over 0,6). The Bartlett Test's p-value of <0,001 is significant and hence indicates that there is a degree of redundancy within the set of variables. Therefore, there exists the potential for the variables to be condensed into a smaller set of meaningful components. From the scree plot, Figure 10, it can be seen that after the fifth component, eigenvalue 0,551, the line remains flat, and from there on, the number of components do not have much explanatory power. To determine the appropriate number of components, the PCA was conducted with two, three, four and five components. Based on the component matrix of the different analyses, three and five components were chosen for further study on the basis of most effectively grouping similar responses across variables. When looking at the communalities of these two

analyses, the analysis with five components had higher communality scores and only one variable slightly lower than 0,7, while the three-component analysis had five variables with communalities lower than 0,7. The communality represent the degree to which the variable is explained by a component. So as suggested, communalities' extractions of five component analysis are all high with score of 0,7 or above except one (*Monitoring and sharing data*, 0.633, although in acceptable level), and at least three variables have high loadings on each factor (Beavers, Lounsbury, Richards, Huck, Skolits and Esquivel, 2013, p .10; Guadagnoli & Velicer, 1988). Therefore, the five-component analysis is chosen as the PCA solution, to be reported in detail below.

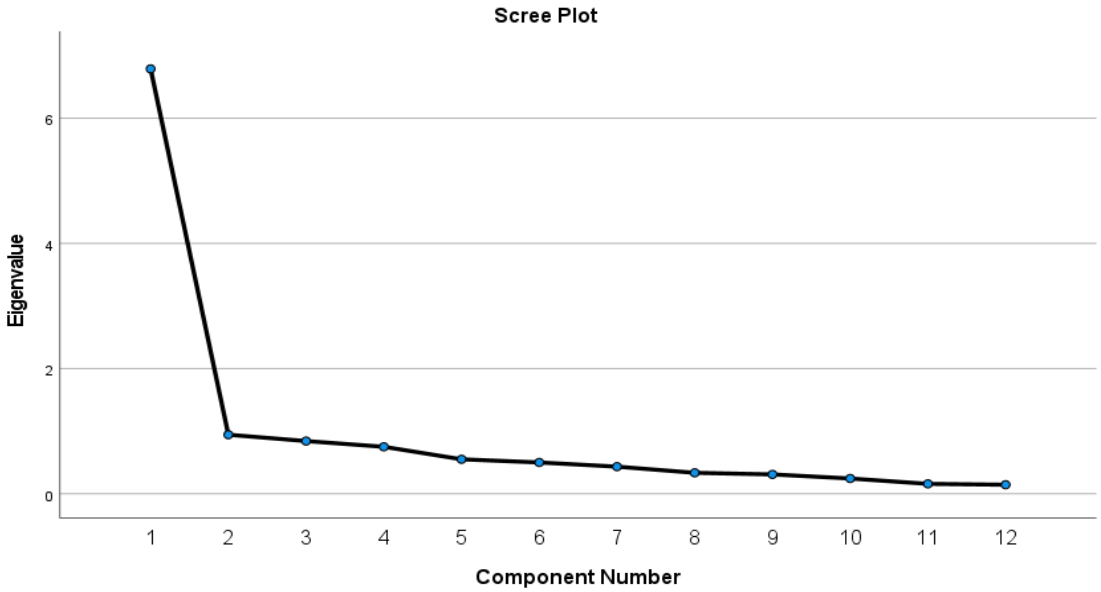


Figure 10 Scree Plot of Components

Table 5 presents the eigenvalues extracted by five fixed components. The column *Rotation Sums of Squared Loadings* in Table 5 shows the distribution of variance after Varimax rotation that maximises the variation of each component, in this case, the five components. As can also be seen from the table, the initial eigenvalue drops after the first factor. Moreover, the screen plot in Figure 10 reveals a visually noticeable elbow, and the line of total variance seems to be relatively flat, starting from the fifth factor. In other words, the variance difference becomes smaller, and five factors seem to be the maximum number of factors to include in terms of reasonability based on the pattern visible in the scree plot.

Table 5 Total Variance

Com-ponent	Initial eigenvalues			Extraction sums of squared loadings			Rotation sums of squared loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6,790	56,582	56,582	6,790	56,582	56,582	3,331	27,761	27,761
2	0,943	7,862	64,444	0,943	7,862	64,444	2,196	18,302	46,063
3	0,842	7,018	71,461	0,842	7,018	71,461	1,851	15,425	61,489
4	0,750	6,254	77,715	0,750	6,254	77,715	1,373	11,443	72,931
5	0,551	4,588	82,304	0,551	4,588	82,304	1,125	9,372	82,304
6	0,500	4,168	86,472						
7	0,433	3,610	90,082						
8	0,335	2,790	92,872						
9	0,309	2,576	95,448						
10	0,244	2,031	97,479						
11	0,158	1,320	98,798						
12	0,144	1,202	100,000						

Table 6 presents the correlations between variables and each component. The correlations (or loadings) between the five variables and the first component are strong. The first component includes variables related to sustainability guidelines, third-party certifications, consumption data and objectives. The first three variables of monitoring & sharing consumption data, the green building certifications and the landlord's objective to be carbon neutral can be regarded as sustainability initiatives that are reported. The latter two variables are guidelines that represent policies, and therefore, the first component was named as *Policies, Initiatives, and Monitoring*.

The second component comprises three strongly correlated variables of energy efficiency, good recycling opportunities and indoor air quality. Hence, the second component is called *Premise Quality*. Two variables the light transportation facilities and the biodiversity of outdoor areas represent the third component. Light transportation facilities are showers and dressing rooms that support commute cycling, which is a more environmentally friendly way than a motor vehicle that produces emissions. Additionally, pleasant outdoor areas promote cycling and walking to work. Therefore, the third component is called *Amenities for Light Transportation*. The fourth and fifth components are formed by one variable, renewable energy production, respectively, and electric car charger; hence, the components are named after the variables as *Renewable energy* and *Electric car charger*. To maximise the correlation of component scores to the estimated factor (validity), the component scores for each case were generated by using regression scores.

Table 6 Rotated Component Matrix

Component	*1*	*2*	*3*	*4*	*5*	
Monitor & Share Consumption Data	0,634	0,252	0,317	0,233	0,112	*Policies, Initiatives, and Monitoring*
Green Building Certifications	0,698	0,106	0,465	0,076	0,238	
Carbon Neutral Objective	0,761	0,253	0,187	0,272	0,136	
GL: ESG Procurement	0,711	0,242	0,260	0,440	0,110	
GL: Sustainable Premise Use	0,821	0,358	0,092	0,052	0,041	
Energy Efficiency	0,434	0,571	0,267	0,448	-0,079	*Premise Quality*
Good Recycling Opportunities	0,368	0,781	0,148	0,272	0,178	
Indoor Air Quality	0,237	0,874	0,255	0,076	0,155	
Light Transport. Facilities	0,166	0,218	0,841	0,235	-0,032	*Amenities for Light Transportation*
Biodiversity of Outdoor Areas	0,419	0,214	0,696	0,128	0,133	
Renewable Energy Production	0,269	0,231	0,268	0,820	0,214	*Renewable Energy*
Electric Car Charging	0,167	0,157	0,049	0,137	0,947	*Electric Car Charger*

Internal consistency, i.e., reliability, is measured by conducting Cronbach's Alpha analysis for components that include more than one variable and presented in Table 7. The Cronbach's Alpha coefficients of each component are high, above 0,7, indicating an acceptable level of internal consistency (Hair et al., 2010, p.161). Deletion of any variable in components 1 or 2 does not have an increasing effect on the Cronbach Alpha. Hence, the results show a good level of reliability for components.

Table 7 Cronbach's Alpha

Component	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Variables
1	0,901	0,903	5
2	0,877	0,881	3
3	0,720	0,720	2

4.2.3 Cluster analysis

The purpose of clustering is to define groups that have cases with similar characteristics. These average characteristics can be used to characterise the population, i.e., determining customer segments. For each case, a membership score is determined to indicate which cluster they belong to, i.e., the customer segment.

First, hierarchical clustering was conducted to define the number of clusters, and then the *k*-means procedure was used to form the clusters. Hierarchical clustering was performed using Ward's method and determining a minimum number of clusters to be

2 and a maximum of 5. Ward's method aims to produce clusters with similar sizes by using squared distances and aggregate clusters with the minimum increase of square sum. The dendrogram in Figure 11 shows that an appropriate number of clusters could be from two to five. If the number of clusters increases, then the number of cases in each cluster decreases, making interpretation and generalisation more challenging.

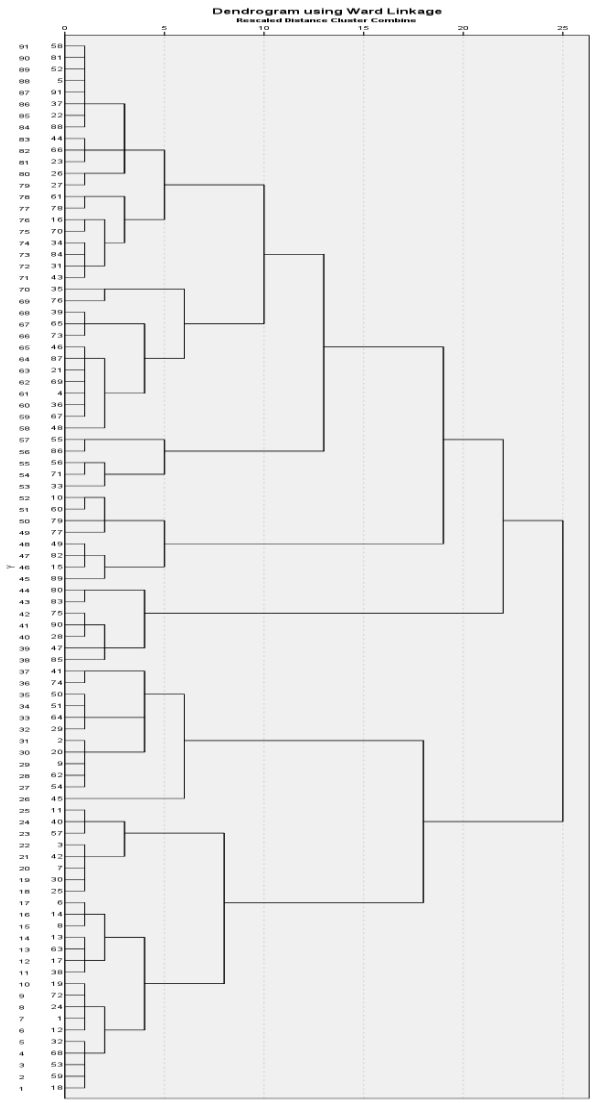


Figure 11 Dendrogram

K-means cluster analysis results in an ANOVA table from where it can be concluded which variables contribute significantly to the formation of clusters. Next, an appropriate number of clusters for this research must be determined. For that reason, a k-means cluster is produced with two, three, four and five clusters. Although the iteration history reached the number zero with two clusters, the k-means cluster analysis resulted in components 1 ($F(1,89)=1,976$, $p = 0,163$) and 4 ($F(1,89)=0,912$, $p = 0,342$) to be not statistically significant. In contrast, the rest components were found to be statistically

significant. In other words, these two components do not significantly impact which cluster the case belongs. Then, with three cluster components, component 1 (F(2,88)=3,097, p = 0,05) was on the limit of being not significant but at an acceptable level. Also, the iteration reached zero in the 10th iteration. Component 5 (F(3,87)=1,147, p = 0,335) with four clusters was not statistically significant, while other components were significant. However, the iteration did not reach zero, indicating that the cluster model is unstable. Lastly, the k-means clustering with five clusters produced all components to be statistically significant, p<0,001, and iteration turned out to be stable in the 9th iteration. After comparing the bar charts of k-means clustering with three and five clusters, the most appropriate number of clusters is five because it clearly includes the two extremities (all components, either with positive or negative values). The bar chart for five clusters is presented in Figure 12, and the bar chart for three clusters can be found in Appendix 1. Although with five clusters, there are similar variances with specific components in different clusters, strong values can be identified that differentiate the clusters from each other. The cluster scores are presented in Table 8.

Figure 12 K-Means Clustering with Five Clusters

Cluster 1 consists of 17 cases (18,7%) that found relatively important component 2, Premise quality, and component 1, Policies, initiatives, and monitoring, while component 3, Amenities for light transportation, and especially component 5, Electric car charger (with highest negative value) were found not to be important. The cluster covers the initiatives and premise-related sustainability actions. These B2B customers

do not find sustainable transportation important while not preferring electric cars or light transportation. Hence, the first cluster is named Passive supporters.

- **Passive supporters** are customers that find premise-related sustainability the most important and generally perceive sustainability positively, but who similarly do not value electric car chargers or light transport and may thus have a traditional car with a combustion engine.

Cluster 2 comprises 9 cases (10%) that attach minor importance to sustainability on average. The least important components were 2, Premise quality, and 4, Renewable energy production, while component 3, Amenities for light transportation, got the highest score though also negative. Cluster 2 is called Uninterested.

- **Uninterested** customers do not perceive sustainability aspects as important and they least value premise-related sustainability aspects. This may indicate a general lack of sustainability awareness or low interest in sustainability.

Cluster 3, with 8 cases (8,8%), was most doubtful towards component 1, the landlord's Policies, initiatives and monitoring, and component 4, Renewable energy produced on-site. However, these customers attached importance to component 3, Amenities for light transportation, and component 2, Premise quality. Although the number of cases is relatively low, it does not mean that this cluster is irrelevant. These B2B customers found important tangible and noticeable variables related to health and nature. Hence, cluster 3 is called Tangibles-oriented.

- **Tangibles-oriented** customers are only interested in factors noticeable in one's surroundings. They are advocates for health and nature-related aspects such as walking and cycling, resource efficiency (recycling, energy), and the premise's air quality. They perceive ESG policies and initiatives as relatively unimportant.

Cluster 4 consists of 41 cases (45%), where all components are found to be relatively equally important, but with component 3 being slightly more important. The least important is component 2, the Premise quality, which includes Recycling, Indoor air quality and Energy efficiency. Since these customers are advocates for sustainability, the cluster is named Enthusiasts.

- **Enthusiasts** are customers who find all sustainability practices relatively important and advocate them.

Lastly, cluster 5 covers 16 cases (17,6%) and has the strongest importance attached to component 5, the Electric car charger and the least for component 3, Amenities for light transportation. Other components retain moderately neutral values. This indicates that most B2B customers in this segment prefer cars over light transit, and since they have a relatively passive attitude toward other sustainable practices, it is also a possibility that they are not aware of or interested in sustainability. Hence, cluster 5 is named Next-generation motorists.

- **Next-generation motorists** are mainly interested in electric car chargers but are not concerned about light transportation, the biodiversity of surrounding areas or renewable energy production. However, they generally perceive sustainability as moderately important, but it is not their highest priority.

Table 8 Cluster scores

		Clusters (e.g., customer segments)				
Component	Variable	1. Passive supporters	2. Un-interested	3. Tangibles-oriented	4. Enthu-siasts	5. Next-generation motorists
1. Policies, Initiatives, and Monitoring	Monitor & Share Data Green Certifications Carbon Neutral Obj. GL: ESG Proc. GL: Sust. Premise Use	0,239	-0,392	-1,767	0,313	0,047
2. Premise Quality	Energy Efficiency Good Recycling Opp. Indoor Air Quality	0,412	-2,224	0,439	0,144	0,224
3.Amenities for Light Transportation	Light Transp. Facilities Biodiversity Outdoor	-0,221	-0,122	0,815	0,511	-1,413
4. Renewable Energy	Renewable Energy	0,191	-0,600	-0,801	0,249	-0,102
5. Electric Car Charger	Electric Car Charger	-1,457	-0,540	0,087	0,414	0,748
$x < -1$ $-1 < x < -0{,}5$ $-0{,}5 < x < 0$ $0 < x < 0{,}5$ $0{,}5 < x$		n = 17	n = 9	n = 8	n = 41	n = 16

Altogether five customer segments were identified based on the importance of B2B customers attached to different sustainability practices.

4.3 Customers' willingness to pay for sustainability

The second research question is addressed through crosstabulation to variable *Willingness to Pay for sustainability* (WTP) and the cluster membership scores. Table 9 shows results from crosstabulation, and some variation exists between clusters. Cluster

4, Enthusiasts seem to be most willing to pay for sustainability if it benefits them by reducing the water or energy costs. In contrast, clusters 2, Uninterested, and 5, Next generation motorists, were the least willing to pay. Also, Tangibles-oriented customers are most likely not willing to pay for sustainability, which might be due to that it is not directly concerning to them. The results correspond relatively well with the customer segment descriptions. Otherwise, there was not much of a difference identified between the clusters.

The chi-square test was performed to confirm the observation, and it resulted in $X^2(12, N=91) = 17{,}365$ and $p = 0{,}136$. This indicates the association between variables is not statistically highly significant, albeit marginally significant (two-sided $p < 0.15$; one-sided $p < 0.10$). Later, the willingness to pay is explored in the additional analysis section.

Table 9 Customers' Willingness to Pay for sustainability by cluster membership

			Cluster Number of Case					
			1. Passive Supporters	2. Uninte-rested	3. Tangibles -oriented	4. Enthu-siasts	5. Next-generation motorists	Total
Would your company pay a premium for your premises/office space to reduce its negative environmental impacts?	1	**Yes**	1	1	0	1	0	3
		% Within Cluster Number of Case	5,9%	11,1%	0,0%	2,4%	0,0%	3,3%
	2	**Yes, but if we benefit in energy or water costs**	4	0	2	15	3	24
		% Within Cluster Number of Case	23,5%	0,0%	25,0%	36,6%	18,8%	26,4%
	3	**No**	6	5	6	9	6	32
		% Within Cluster Number of Case	35,3%	55,6%	75,0%	22,0%	37,5%	35,2%
	4	**Does not know**	6	3	0	16	7	32
		% Within Cluster Number of Case	35,3%	33,3%	0,0%	39,0%	43,8%	35,2%
Total		Count	17	9	8	41	16	91
		%	18,7%	9,9%	8,8%	45,1%	17,6%	100%

4.4 Satisfaction with service-provider brand image and brand's sustainability

The third research question is twofold and addresses the service provider's overall sustainability and brand image. A One-Way ANOVA test is conducted for Cluster Membership scores and variables a) *Satisfaction regarding the landlord's sustainability* and b) *Image as a landlord*. ANOVA test reveals for *Satisfaction regarding the landlord's sustainability* that the difference between clusters is statistically significant on a 10%-level, but not a 5% level, with $F(4,33) = 2{,}235$ and $p = 0{,}086$. In other words,

there is some difference between customer segments regarding satisfaction with the service provider's current responsibility and sustainability practices.

More specifically the pairwise comparisons of cluster means using Tukey HSD in Table 10, reveal that the highest mean is cluster 1, Passive supporters (M=4,33, SE=0,67), and the second highest in cluster 4, Enthusiasts (M=3,89, SE=0,14). The lowest mean score is in cluster 3, Tangibles-oriented (M=2,67, SE=0,88). Due to a low number of responses in cluster 1, the result can be considered with caution. The results regarding cluster 4 and 3 are reasonable. Enthusiast customers pay more attention to sustainability from a broader perspective, while Tangibles-oriented ones focus on their surroundings and actions related closely to them.

Table 10 Customer satisfaction with landlord's sustainability by cluster membership

	Cluster	N	Mean	Std. Deviation	Std. Error	Min.	Max.
1	Passive supporters	3	4,33	1,155	,667	3	5
2	Uninterested	6	3,33	1,366	,558	1	5
3	Tangibles-oriented	3	2,67	1,528	,882	1	4
4	Enthusiasts	18	3,89	,583	,137	3	5
5	Next-gen. motorists	8	3,13	,991	,350	1	4
	Total	38	3,58	1,004	,163	1	5

Next, the same procedure is performed on the variable *Image as a landlord* and the Cluster Membership scores. As expectedly in Table 11, the highest mean is in cluster 4, Enthusiasts (M=4,17, SE=0,19), who are genuinely interested in sustainability. Moreover, since Enthusiasts also consider the landlord to operate responsibly and sustainably, this implies that the landlord performs well in these practices. The second highest satisfaction score was in cluster 1, Passive supporters, who are also generally interested in sustainability but still found it important to drive a gasoline car. Cluster 3, Tangibles-oriented, mean is the lowest (M=2,00, SE=0,32). Tangibles-oriented customers pay mainly attention to matters that they are directly dealing with, such as being in contact with the service provider. Hence, they can be demanding and have a low tolerance for inconveniences, emphasising the impact of customer service and reflecting it to perceived satisfaction. Moreover, since they are not interested in service providers' actions, such as ESG initiatives or policies, they lack knowledge that does not concern them directly. Clusters 2, Uninterested, and 5, Next-generation motorists, fall between these extremities.

The ANOVA test reveals statistically significant differences, where F (4,44) = 4,461 and p = 0,03, between the clusters in how the customers perceive the brand image of the landlord. When comparing the clusters, a statistically significant difference was found between clusters 3 and 4 (p = 0,003), which is also supported by the highest distinction in means. Additionally, pairwise comparison revealed significant difference between, Passive supporters and Tangibles-oriented (p = 0,040).

Table 11 Customers' satisfaction with the landlord image by cluster membership

	Cluster	N	Mean	Std. Deviation	Std. Error	Min	Max
1	Passive supporters	10	3,80	1,229	,389	2	5
2	Uninterested	7	3,14	1,215	,459	1	5
3	Tangibles-oriented	5	2,00	,707	,316	1	3
4	Enthusiasts	18	4,17	,786	,185	3	5
5	Next-generation motorists	9	3,00	1,581	,527	1	5
	Total	49	3,51	1,277	,182	1	5

The positive results in both *Image as a landlord* and *Satisfaction regarding the landlord sustainability* in customer segments Passive supporters and Enthusiasts indicate that they pay attention to service provider's sustainability practices, which positively affects the company's brand image. This also suggests that the service provider meets the customers' expectations regarding sustainability. Pearson correlation between these two variables was found to be significant p < 0,001 with a positive correlation value of 0,817, which supports the indication that a relationship exists between variables and increases. The opposite outcome is among Tangibles-oriented customers who do not pay attention to service provider's initiatives generally if they do not concern them, and hence, in this case, the sustainability practices do not have enhancing influence on their perception of service provider's image.

4.5 Other characteristics of customer segments

Beyond the research questions related survey questions, background information was collected regarding the company's size, and the business premise country. Firstly, it is explored to what extent the company size and premise country are associated with the clusters, e.g., customer segments. A One-Way ANOVA is conducted for *Company size* (the dependent variable) and Cluster Membership Scores. Company sizes are displayed as 1 = Micro, 2=Small, 3=Medium and 4=Large sized. *Company size* resulted in a statistically significant p-value of 0,025 and F(4,86) = 2,950, indicating a difference between the clusters with the given variable. In other words, the customer segments vary

depending on the company size. Generally, by looking at the means in Table 12, the company's size increases, the importance attached to sustainability also seems to grow. Pairwise comparison of means using Tukey HSD revealed statistically significant difference between clusters 2 Uninterested and 4 Enthusiasts (p=0,02). Uninterested covers mostly only micro-companies and Enthusiasts mainly small and medium-sized companies, but also a few large and micro-ones. From this can be concluded that micro companies do not find sustainability matters that important. Between other customer segments, there was no statistically significant difference (p>0,05). Passive supporters, Tangibles-oriented and Next-generation motorists comprise micro and small-sized companies.

Table 12 Company Sizes by Cluster Membership

Cluster		N	Mean	Std. Deviation	Std. Error	Min.	Max.
1	Passive supporters	17	1,65	0,786	0,191	1	4
2	Uninterested	9	1,11	0,333	0,111	1	2
3	Tangibles-oriented	8	1,5	0,535	0,189	1	2
4	Enthusiasts	41	2,05	0,893	0,139	1	4
5	Next-generation motorists	16	1,88	0,957	0,239	1	4
	Total	91	1,8	0,859	0,09	1	4

Crosstabulation is performed to variable *Premise location country* and Cluster Membership scores. Results are presented in Table 13. The Chi-Square turned out to be statistically significant, with p = 0,001 and $X^2(12, N=91) = 32,725$. The first cluster, Passive supporters, comprises B2B customers from Finland and Denmark. The second cluster, Uninterested customers, mainly cover only companies from Denmark and Finland. The third cluster, Tangibles-oriented, consists of companies equally from Sweden, Finland and Denmark. The fourth cluster, Enthusiasts, comprises from Finland and Sweden. The only large company from Norway is also part of this cluster. From this can be concluded that companies in Denmark are generally the least interested in sustainability matters compared to other Nordic countries. Lastly, cluster five, Next-generation motorists, represent companies from Finland and Sweden.

Table 13 Crosstabulation of Premise Location Country by Cluster Membership

			Clusters					
			1. Passive supporters	2. Uninte-rested	3. Tangibles-oriented	4. Enthusiastiscs	5. Next-generation motorists	Total
Country where the premise is located	1	**Finland**	10	2	3	31	6	52
		% within Cluster Number of Case	58,8%	22,2%	37,5%	75,6%	37,5%	57,1%
	2	**Denmark**	6	6	2	3	2	19
		% within Cluster Number of Case	35,3%	66,7%	25,0%	7,3%	12,5%	20,9%
	3	**Sweden**	1	1	3	6	8	19
		% within Cluster Number of Case	5,9%	11,1%	37,5%	14,6%	50,0%	20,9%
	4	**Norway**	0	0	0	1	0	1
		% within Cluster Number of Case	0,0%	0,0%	0,0%	2,4%	0,0%	1,1%
Total		Count	17	9	8	41	16	91
		% cases	19 %	10 %	9 %	45 %	18 %	100 %

4.6 Additional analysis on willingness to pay and satisfaction with sustainability practices

Since variables *WTP* and *Satisfaction regarding landlord's sustainability* were not highly statistically significant between the clusters, the relation of these variables is additionally compared to *Company size* and *Premise location country*. The additional survey question measured companies' perception of sustainability in facility-related decision-making. Hence the remaining variable, *Sustainability related to business premises* that addresses B2B customers' evaluation to what extent they attach importance to sustainability when making premise-related decisions, is explored. Finally, the *WTP* relation to components and *Sustainability related to business premises* are analysed.

First, a crosstabulation was performed between variables *Premise location country* and *WTP* (interest in paying a premium to reduce environmental impact). Crosstabulation in Table 14 revealed 34,6% of B2B customers in Finland were the most prepared to pay for sustainability, while 52,6% of customers in Denmark were unwilling to pay any premium. The answer from Norway also falls under aiming for cost-saving benefits. The only companies willing to pay to reduce environmental impact without benefiting themselves

were two companies from Finland and one from Sweden. Unfortunately, the Chi-Square test result turned out to be statistically insignificant with p = 0,354 and X^2 (9, N=91) = 9,957, which indicates that the result should be considered with caution.

Table 14 Crosstabulation of Willingness to Pay for Sustainability by Country

			Country				
			Finland	Denmark	Sweden	Norway	Total
Would your company pay a premium for your premises/office space to reduce its negative environmental impacts?	1	**Yes**	2	1	0	0	3
		% within Country	3,8%	5,3%	0,0%	0,0%	3,3%
	2	**Yes if benefits**	16	3	4	1	24
		% within Country	30,8%	15,8%	21,1%	100,0%	26,4%
	3	**No**	13	10	9	0	32
		% within Country	25,0%	52,6%	47,4%	0,0%	35,2%
	4	**Does not know**	21	5	6	0	32
		% within Country	40,4%	26,3%	31,6%	0,0%	35,2%
Total		Count	52	19	19	1	91
		%	57 %	21 %	21 %	1 %	100 %

Next, *Willingness to pay for sustainability* and *Company size* (dependent variable) was explored through crosstabulation. The results show, in Table 15, that the willingness to pay a premium (including that the companies would benefit themselves) contains a relatively large number of small and medium-sized companies. A total of 38,5% of small and 37,5% of medium companies were willing to pay for sustainability, whereas 81,6% of micro companies hesitated by refusing or having no opinion. The results are reasonable: the bigger the company is, the more they are interested in sustainability. Also, the Chi-Square test was not statistically significant, with p = 0,493 and X2 (9, N=91) = 8,415, indicating no association between variables.

Table 15 Crosstabulation of Willingness to pay for sustainability by Company size

			Company size (employees)				
			1–9	10–49	50–249	>250	Total
Would your company pay a premium for your premises/office space to reduce its negative environmental impacts?	1	**Yes**	1	1	1	0	3
		% within Company size	2,6%	2,6%	12,5%	0,0%	3,3%
	2	**Yes, if benefits**	6	14	2	2	24
		% within Company size	15,8%	35,9%	25,0%	33,3%	26,4%
	3	**No**	16	13	1	2	32
		% within Company size	42,1%	33,3%	12,5%	33,3%	35,2%
	4	**Does not know**	15	11	4	2	32
		% within Company size	39,5%	28,2%	50,0%	33,3%	35,2%
Total		Count	38	39	8	6	91
		%	42 %	43 %	9 %	7 %	100,0

One-Way ANOVA was performed for variables *Satisfaction regarding landlord's sustainability practices* and *Premise location country*. The test was insignificant, with p = 0,419 and F (3,34) = 0,969. Norway has the highest mean of 5,00, but with only one response. In Finland, B2B customers were secondly most satisfied (M=3,68, SE=0,20), with 68,4% of total responses scoring 4 or 5 from Finland. With close results followed by Denmark (M=3,44, SE=0,38). In comparison, customers in Sweden were the least satisfied (M=3,33, SE=0,37).

The survey question covering the remaining variable *Sustainability related to business premises* is an additional one, not directly associated with any research question and measures the customers' general attitude towards sustainability. One-Way ANOVA test between variables *Sustainability related to business premises and WTP* showed not being statistically highly significant between variables with p = 0,115 and F(3,83) = 2,039. This indicates that it is not evident that those B2B customers who perceive business premise sustainability to be important are the most willing to pay for premium to reduce their environmental impact. However, it is notable that there were a relatively low number of B2B customers willing to pay a premium. Hence, there was no difference among attitude and WTP it can be concluded that some customers find sustainability essential in decision-making but are not prepared to pay a premium.

One-Way ANOVA is also performed for *Sustainability related to business premises* and *Premise location country,* which resulted to be significant with p<0,001 and F(3,83) = 7,481. B2B customers in Finland (M=4,25, SE=0,09) and Norway (M=5,00, only one answer) found that sustainability matters are the most important compared to other Nordic countries when making decisions related to business premises, while Sweden was the least (M=3,24, SE=0,27). Denmark scores the second lowest with the means (M=3,67, SE=0,27). The conclusions regarding the Premise country location and *Sustainability related to business premises* align with the conclusion regarding *WTP* and *Premise country location*.

Next variables *Company size* and *Sustainability related to business premises* are explored through ANOVA, which resulted to be statistically significant with a p-value of 0,042 and F(3,83) = 2,869. Pairwise comparisons of the means using Tukey HSD revealed a statistically significant difference between micro and medium-sized companies regarding their importance towards sustainability when making decisions on business premises. More specifically, in micro-sized companies (M=3,67, SE=0,178), the

wise reasoning scores were marginally significantly lower than scores in medium-sized companies (M=4,50, SE=0,19, p=0,096).

Lastly, One-Way ANOVA is performed to explore whether there is a relation between the clusters and *Sustainability related to business premises*. The test outperformed to be statistically significant with p = 0,001 and F(4,79) = 4,937, indicating the difference between customer segments. Moreover, pairwise comparisons of the means using Tukey HSD revealed a significant difference between customer segments 2 and 4. More specifically, in the cluster 2 Uninterested (M=3,25, SE=0,53) scores were significantly lower than scores in customer segment 4 Enthusiasts (M=4,29, SE=0,14, p=0,020). Additionally, there was a statistically significantly (p=0,018) lower mean between Next-generation motorists (M=3,47, SE=0,17) than Enthusiasts. In other words, the lowest importance in premise-related decision-making and sustainability attached B2B customers in segment 2, Uninterested, and the most to segment 4, Enthusiastic, and 5, Next-generation motorists. The result was expected because the variable reflects B2B customers' importance on sustainability practices. This supports previously presented conclusions and descriptions of each customer segment.

When analysing sustainability practices and variable *WTP*, B2B customers who were willing to pay a premium (including if they would also benefit) found the most important practices (based on the weighted mean of importance score) to be the *Indoor air quality* (M=4,72), the *Good recycling opportunities* (M=4,64), the *Energy efficiency* (M=4,48) and the *Light transportation facilities* (M=4,48). *Electric car charging* (M=3,342) was found to be the least important component, which is driven by high variation that is also reflected in the willingness to pay. To summarise, the most important perceived variables construct component *Premise quality*.

4.7 Final descriptions of the customer segments

As a result of component and cluster analysis, five customer segments were identified as follows:

Passive supporters are customers that find premise-related sustainability the most important and generally perceive sustainability positively but who similarly do not value electric car chargers or light transport and may thus have a traditional car with a combustion engine. For example, this could be for cost reasons, but generally, they are hesitant to pay for sustainability. Although they are passive, they are likely to pay

attention to service providers' sustainability practices. The B2B customers in this segment are mainly micro and small-sized companies.

Uninterested customers do not perceive sustainability aspects as important, and they least value premise-related sustainability aspects. This may indicate a general lack of sustainability awareness or low interest in sustainability. They are the least likely to pay more to reduce environmental impact. This segment mostly consists of micro companies.

Tangibles-oriented customers are only interested in factors noticeable in one's surroundings. They are advocates for health and nature-related aspects such as resource efficiency (recycling, energy) and the premise's air quality. They perceive ESG policies and initiatives as unimportant and, as a result, are unlikely to pay attention to the service provider's sustainability practices. Tangibles-oriented customers pay mainly attention to matters that they are directly dealing with, such as being in contact with the service provider. Hence, they can be demanding and have a low tolerance for inconveniences, emphasising the impact of customer service and reflecting it to perceived satisfaction. The B2B customers in this segment are mainly micro and small-sized companies.

Enthusiasts are customers who genuinely find sustainability aspects important, advocate them and are committed strongest. They are the most likely to pay a premium to reduce the environmental impact if they achieve cost savings in energy and water consumption. They have relatively high sustainability awareness, and due to broad interest, they will keep an eye on the service provider's sustainability practices. As active customers, they are conscious of the things happening around them, which are reflected in the brand image of the service provider. Enthusiasts comprise mainly small and medium-sized companies but also large and micro-ones.

Next-generation motorists are mainly interested in electric cars while unconcerned about light transportation, the biodiversity of surrounding areas or renewable energy production. However, they generally perceive sustainability as moderately important but not the highest priority and are the least willing to pay for sustainability. These customers mainly represent micro and small-sized companies but may also include a few medium and large ones.

5 DISCUSSION AND IMPLICATIONS

The aim of this study was to explore which specific sustainability practices are especially important for B2B customers in the real estate rental market and which customer segments exist in terms of value assigned to specific sets of sustainability practices. Moreover, the customer segments were explored with respect to the willingness to pay more for service, i.e., leased premises, to reduce their environmental impact and their evaluation towards the B2B service provider brand.

This chapter discusses the key findings, answers research questions, and compares the empirical findings to the literature. Furthermore, the theoretical and managerial implications, as well as recommendations for further research, are provided.

5.1 Key findings

The study identified five B2B customer segments based on the degree of importance customers attach to different sustainability practices: Uninterested, Next-generation motorists, Tangibles-oriented, Passive supporters, and Enthusiasts. The segments Uninterested and Enthusiasts represent the two extremities of customers, which are supported by previous research on customer segmentation in sustainability (Anable, 2005; Leiserowitz et al., 2012; Lippincott, 2007). Next-generation motorists attach high importance to electric cars, while Tangibles-oriented customers are mainly interested in their surroundings or practices that directly concern them. Passive supporters are customers who find sustainability important but hesitate to engage them in practice.

Table 17 summarises the key findings of variable differences between customer segments. The study did not find significant evidence, only marginal, to support the fact there is a relation between the willingness to pay for sustainability and customer segments. B2B customers who perceive business premise sustainability to be important are, intuitively enough, the most willing to pay for premium to reduce their environmental impact. However, it is notable that there were a relatively low number of B2B customers willing to pay a premium without benefitting in energy or water costs by themselves. Enthusiasts are the most likely customers willing to pay for sustainability, while Uninterested and Next-generation motorists are the least. Tangibles-oriented customers are also the most likely not willing to pay, but Passive supporters might.

Table 16 Summary of findings

Variable	*RQ2: WTP for sustainability*	*EQ3a: Satisfaction with landlord's sustainability*	*RQ3b: Satisfaction with the image as a landlord*	*RQ4: Company size*	*RQ4: Premise country*
Significant variable differences between customer segments	Yes, marginal	Yes, marginal	Yes	Yes	Yes
Key findings	Willingness to pay for sustainability varies most between Uninterested and Enthusiasts	Satisfaction is highest among Enthusiasts and Passive supporters, while the lowest in Tangibles-oriented customers	Satisfaction is highest among Enthusiasts and Passive supporters, while the lowest in Tangibles-oriented customers	Uninterested covers mostly only micro-companies and Enthusiasts mainly small and medium-sized companies	Enthusiasts and Next-generation motorists cover mainly customers from Finland and Sweden. Passive supporters and Tangibles-oriented mainly cover customers from Denmark and Finland, while Uninterested has a relatively large share from Denmark.

Enthusiasts, who were the most interested and attached the highest importance to sustainability, perceived the service provider's brand image most positively. Passive supporters also reached positive results in brand image and satisfaction regarding the service provider's sustainability. Positive results indicate that they pay attention to service provider's sustainability practices, which positively affect the company's brand image. The finding is aligned with the study by Vesal, Siahtiri and O'Cass (2021); the more the customer is environmentally concerned, and the more importance the customer attaches to sustainability practises, the stronger positive effect it has on the company's brand image. Moreover, those B2B customers who are satisfied with the service provider's responsibility and sustainability practices perceived the image of a service provider positively. This is consistent with the findings of Kumar and Christodoulopoulou (2014) and Vesal, Siahtiri and O'Cass (2021) that sustainability practices enhance brand image. The opposite outcome is among Tangibles-oriented customers who ignore service provider's initiatives generally if they do not concern them, and hence, in this case, the sustainability practices do not have an influence on perceived brand image.

Generally, the study finds that as the company's size increases, the importance business customers attach to sustainability also seems to grow. Medium and large-sized companies pay more attention to sustainability and the sustainability practices of service

providers, and therefore, they are mainly in the customer segment of Enthusiasts. Uninterested customers, in contrast, were largely dominated by micro companies.

There was no statistical evidence found that B2B customers are willing to pay a premium to reduce environmental impact related to company size or nationality. However, according to the proposition by Kumar and Christodoulopoulou (2014), larger companies are more risk-sensitive and, therefore, are more willing to pay to reduce, for example, operational or reputational risks. Based on the literature and analysing the responses of customers, although with small sample resulted in being insignificant, there might be some relation between the company size and willingness to pay for sustainability if a larger sample was used. However, when exploring the customer segments, the most likely willing to pay were Enthusiasts covering mainly small, medium and large companies, while the least were Uninterested, comprising micro companies. Therefore, this could be a topic for further research.

B2B customers in Finland and Norway found that sustainability matters are the most important and also then when making business premise-related decisions compared to other Nordic countries. Although no statistical evidence was found between premise country and willingness to pay, the responses showed that Finland and Norway were also most eager to pay for a premium if they also benefited. Generally, B2B customers with business premises in Denmark were the least interested in sustainability matters compared to other Nordic countries. Half of the companies with business premises in Denmark were unwilling to pay for a sustainability premium, but this might be due to the sample consisting of a relatively large number of micro companies. Enthusiasts mainly consisted of companies from Finland, Norway and Sweden, while Uninterested mainly consisted of companies from Denmark and Finland. Although there seem to be differences between countries and preferences for paying a premium, the topic needs further research with a larger sample.

Generally, the highest overall importance was attached to the sustainable practices *indoor air quality, good recycling opportunities*, *energy efficiency and renovations*, which also formed the component *Premise Quality*. These constructs also represent the sustainability factor of Energy and resource efficiency introduced by Kapitan, Kennedy and Berth (2019) and are one of the impactful ones considering the environment in the given industry. Additionally, B2B customers may have their own consumption-related targets that align with these practices (Pitta-Browning, 2021). The component of *Electric car charging* was found to be the least important among all variables. Surprisingly, the

Green Building Certifications turned out to be the second least important sustainable practice.

5.2 Theoretical implications

For academics, the study provides four contributions to sustainability research on marketing. Firstly, a new insight into the importance B2B customer attach to different sustainable practices and establish a customer segment on the sustainability of which the existing literature only provides a scratch of the surface. Secondly, the study shows that the importance B2B customers attach to sustainability is affected by company size. Thirdly, it hints that B2B customers importance attached to sustainability is also related to their willingness to pay premium to reduce environmental impact. Moreover, the study identifies the most potential B2B customer by characteristics, e.g., customer segments, who are most willing to pay a premium to reduce environmental impact.

Lastly, the empirical research is conducted in the real estate industry, which is unusual for marketing studies. The findings of previous studies were not conflicting in the study's context, and the study provides a snapshot of the industry in the middle of a change in sustainability.

5.3 Managerial implications

For professional real estate investors and service providers (i.e., lessors), the research helps to focus on communicating the most noteworthy sustainable practices and turning them into a valuable brand image that positively affects business performance, i.e., being the desired lessor in the market. The study by Jacobs, Singhal and Subramanian (2010) showed that a positive brand image also affects the company's valuation in the stock market through market performance.

Generally, B2B customers perceive sustainability practices as important but hesitate to pay a premium to reduce environmental impact. Sustainability practices are rather expectations of customers, i.e., tenants, and influence their decision-making regarding business premises. The interest towards sustainability seems to increase as the company size increases. The customer segments combined with strong CRM help service providers identify potential customers and meet their sustainability expectations. By meeting customer sustainability-related expectations better than competitors, the service provider can achieve market advantage, gaining more sales and possibly setting higher prices. Hence, sustainability should not be disregarded.

Against the general market perception regarding the importance B2B customers attach to green building certifications, these are not highly valued. The interest towards the certificates varies between B2B customers. Therefore, the suggestion for real estate professionals is to invest in energy efficiency, ensure good indoor air quality and recycling options, and provide light transportation facilities. Besides the leasing market, the construction industry can apply results for designing properties to consider office users' needs and expectations better.

Most importantly, service providers need to communicate their sustainability practices and initiatives credibly and transparently since B2B customers are risk-sensitive and look after green benefits. B2B customers are selective with whom they do business and tend to end up doing business with those who share the same ethos (Kumar and Christodoulopoulou, 2014).

To be concluded, the perception of importance attached to sustainability practices is subjective and not every customer can be pleased, and it is not feasible even to try. Marketers and real estate professionals should target the most sustainability-sensitive customers, which are in this study revealed to be Enthusiasts and Passive supporters.

5.4 Limitations and recommendations for future research

For future research, a larger share of larger-size companies should be included, so the results address their interests more evidently, although the population has a majority of small- and mid-size companies. To improve the reliability and generalisation of the findings beyond the real estate context, the study should be conducted with a more extensive sample set and in a different sample population, for example, in Central Europe, to validate the findings.

The real estate industry has one of the strongest environmental impacts, and outcomes are relatively prominent. Therefore, the integration of sustainability into marketing and B2B customers should be explored more in the industry.

Willingness to pay a premium for sustainability resulted in being insignificant when analysed with other variables, most likely due to a small sample. Therefore, it is another theme to explore more profoundly in the real estate industry context with a larger sample. The customer segments could be established according to a willingness to pay and investigate what sustainability practices are found most valuable by the B2B

customers. Moreover, further research should also include company size and location country.

The research addressed the importance of B2B customers attached to several sustainable practices and service providers' brand image but did not measure the performance of these practices. To explore the service provider's sustainability practises concerning the formation of brand image and performance on these practices, for future research, a new question should be added to measure the performance of these sustainability practices, i.e., constructs highlighted with colour grey in Figure 5.

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APPENDIX 1: K-MEANS CLUSTERING WITH THREE CLUSTERS