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The impact of sustainability communication on tourists' willingness to pay for a cottage holiday

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Abstract

The goal of this research is to examine how communicating different sustainability dimensions affects German tourists' willingness to pay for a Finnish holiday cottage. This research also aims to find out whether socio-demographic factors have an impact on the formation of willingness to pay. The research is conducted as a quantitative study, and it employs a contingent valuation method to examine German tourists' willingness to pay for each sustainability dimension.

The results show that environmental sustainability is the only sustainability dimension that has a statistically significant effect on the tourists' willingness to pay. On average, the respondents were willing to pay 15,1% more for an environmentally sustainable cottage accommodation option compared to a regular option. Employment status was the only socio-demographic factor to have a significant effect on the tourists' willingness to pay.

The main conclusion is that there are differences in how tourists value different sustainability causes. The results suggest that investing in and actively communicating about environmental sustainability would be a successful business strategy for Finnish cottage businesses targeting German tourists. Future research is still needed to uncover the reasons why environmental sustainability is preferred over other sustainability causes.

Itä-Suomen yliopisto, Yhteiskuntatieteiden ja kauppatieteiden tiedekunta
Kauppatieteiden laitos
Matkailumarkkinointi ja johtaminen
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Tiivistelmä

Tämän Pro Gradu -tutkielman tavoitteena on tutkia vastuullisuusviestinnän vaikutusta saksalaisten matkailijoiden maksuhalukkuuteen suomalaisesta lomamökistä. Tutkielma yrittää selvittää myös sosio-demografisten tekijöiden vaikutusta maksuhalukkuuteen. Tutkielma on kvantitatiivinen tutkimus, jossa käytetään contingent valuation -menetelmää maksuhalukkuuden selvittämiseen.

Tulokset osoittavat, että ympäristövastuullisuus on ainoa vastuullisen matkailun ulottuvuus, jolla on tilastollisesti merkittävä vaikutus saksalaisten maksuhalukkuuteen. Vastaajat ovat valmiita maksamaan keskimäärin 15,1 prosenttia korkeamman hinnan ympäristövastuullisesta mökistä tavalliseen mökkiin verrattuna. Työllisyystilanne oli ainoa tilastollisesti merkittävästi maksuhalukkuuteen vaikuttava sosio-demografinen tekijä.

Matkailijat näyttävät suosivan ympäristövastuullisuutta enemmän kuin muita vastuullisen matkailun ulottuvuuksia. Ympäristövastuullisuuden suosiminen viittaa siihen, että ympäristövastuullisuuteen investoiminen ja siitä viestiminen voisi olla kannattava liiketoimintastrategia mökkimatkailuyrityksille, joiden kohderyhmänä on saksalaiset matkailijat. Jatkotutkimusta tarvitaan vielä esimerkiksi ympäristövastuullisuuden suosion syiden selvittämiseksi.

Abbreviations

CV	Contingent valuation method
OECD	Organisation for Economic Co-operation and Development
UEF	University of Eastern Finland
UNWTO	United Nations World Tourism Organisation
WTP	Willingness to pay

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1 Introduction

1.1 Background of the study

Sustainable consumption and the fight against climate change have become hot topics in public discussion in the last decade. This can also be seen in the tourism industry as sustainability issues have received a lot of attention both in public discussion as well as in scientific research. Sustainable tourism development has also become one of the top priorities for major organizations like the UNWTO and OECD. In fact, OECD lists sustainable tourism development as one of the most important policy priorities for global tourism (OECD, 2020). Regarding the Finnish tourism industry, Visit Finland (2021) also lists sustainability as one of the most important international tourism trends.

One of the key issues is to make the whole tourism market more sustainable both in terms of supply and demand. Tourism businesses need to be motivated to develop their products and services towards a higher degree of sustainability in a way that also meets the tourists' needs. Fortunately for the tourism businesses, the tourism market seems to be increasingly interested in sustainable products (Visit Finland, 2021), and this trend is expected to continue in the future, as younger tourists seem to be more mindful of sustainability issues than the previous generations (Falk & Hagsten, 2019).

Especially during the last decade, scholars have shown increasing interest in tourists' willingness to pay for sustainable products and services. Much of the attention has been directed toward unearthing the factors that would explain why tourists choose sustainable products over non-sustainable ones. The effect of socio-demographic factors, such as age, income, gender, and education level, have been frequently studied across the world (e.g., Kang, K. H., Stein, Heo, & Lee, 2012; López-Sánchez & Pulido-Fernández, 2017; Nelson, Partelow, Stäbler, Graci, & Fujitani, 2021). In addition, scholars have tried to explain the tourists' pro-sustainable behavior through

psychographic factors, such as norms and attitudes (e.g., Durán-Román, Cárdenas-García, & Pulido-Fernández, 2021). However, some argue that socio-demographic and psychographic factors are insufficient in thoroughly explaining tourists' willingness to pay for sustainable products. Hence, new avenues of research have been opened to examine the effect of e.g, personal habits (MacInnes, Grün, & Dolnicar, 2022) and different messages (Li, Saayman, Stienmetz, & Tussyadiah, 2021) on tourists' pro-sustainable choices.

Sustainability is traditionally divided into three dimensions: environmental, socio-cultural, and economic (Swarbrooke, 1999), but especially in tourism literature, most attention is directed towards environmental sustainability (see e.g., Tölkes, 2018). This is also true with studies concerning tourists' willingness to pay for sustainable products. On one hand, the emphasis on environmental sustainability can be justified by the fact that environmental issues, such as climate change or the conservation of endangered species dominate the public sustainability discussion, but on the other hand, neglects the other two dimensions. Moreover, when the emphasis of research efforts is on one dimension, we are missing out on information e.g., how valuable people see efforts toward socio-cultural or economic sustainability, or how different dimensions compare against each other in terms of consumer valuation.

The differences between the consumers' willingness to pay for different sustainability causes have been researched in contexts other than tourism. Both European and Asian researchers have conducted studies in the retail context, where they conclude that a Fair Trade label, which signifies socio-cultural sustainability, generates higher willingness to pay than an organic label, which signals the environmentally sustainable qualities of a product (Didier & Lucie, 2008; Ota, Sakata, & Iijima, 2019). These findings are in line with the extensive literature review of Tully & Winer (2014), who conclude that sustainability causes that benefit humans generate higher willingness to pay than causes benefiting the environment. These results show that different dimensions of sustainability might be valued differently by consumers, which reveals an interesting research gap for tourism-related research.

The focal point of the study is in examining the tourists' willingness to pay in the domain of sustainable tourism. Willingness to pay can be seen as a part of the tourists' price perception and decision-making processes, which, in the bigger picture, is connected to the research on tourist behavior. The positioning of this study is illustrated in Figure 1.

Figure 1. Positioning of the study

This study attempts to bridge a research gap presented both in general literature as well as in tourism literature. Ota et al. (2019), who compared willingness to pay for environmental and socio-cultural dimensions with chocolate, call for additional research on different products. This study applies a similar methodology to cottage accommodation products. It also examines the economic sustainability dimension, thus widening the study perspectives of Ota et al (2019) and Didier & Lucie (2008).

From the field of tourism, this study addresses the research proposal of Nelson et al. (2021), who call for additional research into the sustainability factors and initiatives tourists are willing to support. As the differences between the appreciation of environmental, socio-cultural, and economical dimensions of sustainability have not been researched in the tourism context, this

research also aims to contribute by discovering what kind of differences there are between the willingness to pay for each dimension. Also, as this type of research has not been conducted in the Finnish rural tourism context, novel insights are offered from that perspective as well. The research gap is illustrated in Figure 2.

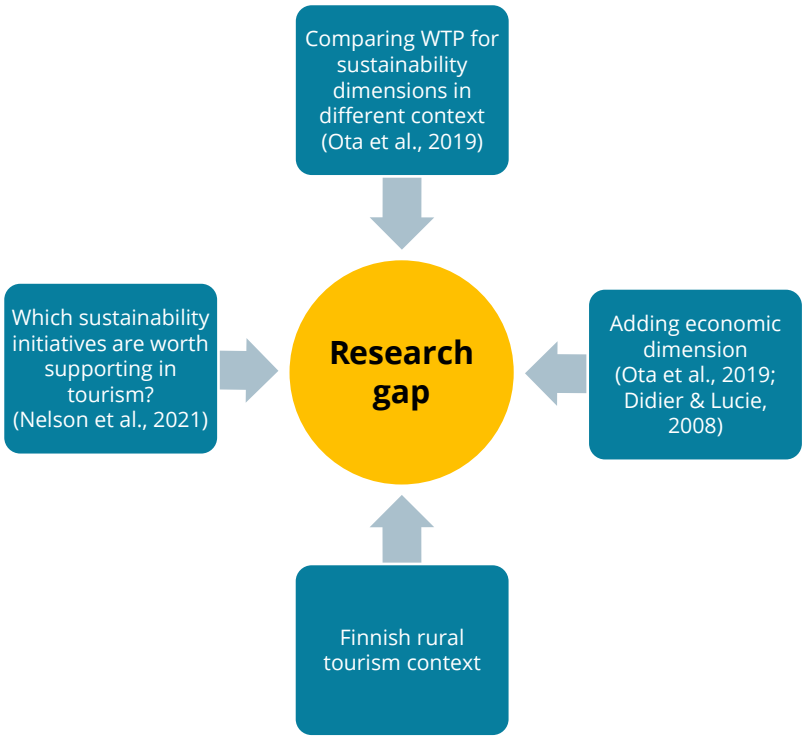

Figure 2. Research gap

1.2 Aim of the research

The goal of this research is to examine how communicating different sustainability dimensions affect German tourists' willingness to pay for a Finnish holiday cottage. The main interest lies in discovering whether sustainable products create higher WTP than regular products as well as in the potential differences between sustainability dimensions: does one dimension create a higher willingness to pay than the other? How big are these differences, or is there any difference at all? The findings from this research could increase the theoretical understanding of the connection between different sustainability causes and the willingness to pay for them. From a managerial point of view, the research results could be used to prove the financial value of sustainability

practices to Finnish rural tourism businesses. Furthermore, the results could help Finnish tourism businesses see sustainability investments as a profitable business strategy and motivate them to invest in sustainable tourism practices. An illustration of the potential managerial contributions of the study is presented in Figure 3.

Figure 3. Potential managerial contributions of the study

This study attempts to answer the following research questions:

RQ 1: How does the promotion of different sustainability dimensions affect German tourists' willingness to pay for a Finnish cottage product?

RQ 2: How do socio-demographic factors affect German tourists' willingness to pay for sustainable cottage products?

Cottages were chosen as the focal point of the study as they are an integral part of Eastern Finland's tourism: the 2354 holiday cottages account for over 34% of Eastern Finland's accommodation capacity with over 12,000 beds (Statistics Finland, 2022a; Statistics Finland, 2022b). The target population of this research is Germans, as Germany is one of the main target markets of the Finnish tourism industry (Ministry of Economic Affairs and Employment, 2019) and therefore gives much-needed information on the sustainability preferences of a very important target group. By finding out if German tourists are willing to pay more for sustainable cottage holidays, the companies can be motivated to invest in sustainability practices to gain a competitive advantage.

Based on existing literature in tourism as well as in other domains, several hypotheses are formed and tested in this study. Numerous studies show that tourists, in general, are willing to pay more for sustainable tourism products and destinations (see e.g., Durán-Román et al., 2021; Kang, S. & Nicholls, 2021). Different sustainability dimensions' effects on consumer WTP have been researched in tourism and especially in retail. In tourism literature, the environmental dimension has received quite a bit of attention, and the general conclusion is that tourists are willing to pay more for environmentally sustainable products (Kang et al., 2012; Nelson et al., 2021). The results regarding the socio-cultural dimension's impact on tourist WTP are also positive (e.g., Li et al., 2021). The impact of economic sustainability on WTP is found to be positive in tourism as well as in the retail context (Li et al., 2021; Ota et al., 2019). Hence, the following hypotheses are presented:

H1. Sustainability communication affects German tourists' WTP positively
H1a. Communication about environmental sustainability affects German tourists' WTP positively
H1b. Communication about socio-cultural sustainability affects German tourists' WTP positively
H1c. Communication about economic sustainability affects German tourists' WTP positively

It is fair to assume that all dimensions of sustainability affect tourists' WTP positively, but the effect of each dimension on WTP seems to be different. According to multiple general literature papers, those sustainability causes that benefit humans, seem to generate higher WTP than those benefiting the environment (e.g., Ota et al., 2019; Tully & Winer, 2014). This discrepancy has not been explicitly researched in the tourism context but some conclusions can be drawn by comparing the results of existing papers. For example, Li et al.'s (2021) results show that the premium that tourists are willing to pay for socio-culturally and economically sustainable products (over 15%) is higher than in tourism studies that focus on the environmental dimension (less than 10%). Hence, H2 is proposed as follows:

H2. Communication about socio-cultural sustainability affects German tourists' WTP more positively than communication about environmental sustainability

Regarding socio-demographic factors, income is one of the most frequently studied factors influencing consumer WTP. Income is often seen to have a positive correlation with willingness to pay (Katt & Meixner, 2020), but this is not always the case. Results from a Spanish tourism destination show that although income does affect willingness to pay for sustainable products, there is no direct and growing relationship between income and WTP (López-Sánchez & Pulido-Fernández, 2017), meaning that at least in some cases WTP declines as income increases. Based on these results, H3 is formed:

H3. Income has a moderating effect on German tourists' WTP for sustainable cottage products

1.3 Key concepts

Sustainability communication is a form of communication, where companies attempt to make consumers and other stakeholders aware of their sustainable product offerings, values, and business practices (Kim, Lee, & Fairhurst, 2017; Tölkes, 2018).

Sustainable tourism is a form of tourism that "takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment, and host communities" (UNWTO, n.d.). Sustainable tourism is one of the most important development paradigms in today's tourism business. Sustainable tourism can be divided into three dimensions: environmental, socio-cultural and economic.

Sustainable business practice is a business practice, which is environmentally friendly, socially responsible, and economically feasible (University of North Florida, n.d.). Sustainable business practices can be characterized as a value-added business strategy that benefits a company while engaging in sustainability initiatives (Kim et al., 2017).

Willingness to pay can be defined as the maximum price a buyer accepts to pay for a given number or quantity of goods or services (Le Gall-Ely, 2009; Wertenbroch & Skiera, 2002).

Willingness to pay can sometimes be defined as a range of prices a buyer is willing to pay (Stobierski, 2020).

1.4 Structure of the thesis

First, the theoretical background of the study is elaborated. The phenomenon of sustainable tourism is examined in detail, focusing especially on the reasons why sustainable tourism is needed, the reasons and motivations for choosing a sustainable tourism product as well as the supplier perspective: why do tourism businesses want to practice sustainable tourism? The basics of sustainability communication are also covered.

The theoretical part continues with examining the concept of willingness to pay. Mainly attention is paid to how willingness to pay is formed, which factors affect the formation and how is willingness to pay measured. The emphasis is on willingness to pay in the context of sustainable products and services.

Methodological choices are then presented and justified, before presenting the results of the study. Results are then followed by discussion, where the results are reflected against existing literature. After this, the study draws its conclusions, is critically evaluated, and presents ideas for future research.

2 Sustainable tourism

2.1 Definitions and related concepts

In the grand scheme of things, sustainable tourism is a rather new concept, which is derived from the general concept of sustainable development. The negative impacts of the massive growth of tourism and leisure time activities first started to gain attention in the 1960s (Dower, 1965, cited in Swarbrooke, 1999, p. 8), and the concept of "green tourism" was introduced in the 1980s. Green tourism was a more commonly used term at first, but it was gradually replaced by the concept of sustainable tourism in the 1990s (Swarbrooke, 1999). Nowadays, sustainable tourism has become a major development paradigm in the tourism industry across the globe. Sustainability is recognized as a top development priority by multiple influential organizations that govern global tourism and economic development, such as the OECD and UNWTO. Sustainable tourism is traditionally divided into three dimensions: environmental sustainability, socio-cultural sustainability, and economic sustainability (Swarbrooke, 1999). This study follows this division.

There is a multitude of ways to define sustainable tourism, and Swarbrooke (1999) states that there is no widely accepted definition for sustainable tourism. He offers a few different definitions for sustainable tourism, one of them being derived from the concept of sustainable development. According to this definition, sustainable tourism refers to "forms of tourism which meet the needs of tourists, the tourism industry, and host communities today without compromising the ability of future generations to meet their own needs" (Swarbrooke, 1999, p. 13).

The shortcoming of the above-mentioned definition is that it does not specifically consider the different dimensions of sustainability. Another definition is proposed, where sustainable tourism means "tourism which is economically viable but does not destroy the resources on which the future of tourism will depend, notably the physical environment and the social fabric of the host community" (Swarbrooke, 1999, p.13).

A more recent definition that is being referred to quite often is the one offered by the UNWTO. According to them, sustainable tourism "...takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment, and host communities" (UNWTO, n.d.). This definition merges the main characteristics of Swarbrooke's (1999) definitions into one: it emphasizes the responsibility of the tourism actors to satisfy their needs in a way that does not take away the future generations' opportunities to do the same. On a practical, tourism destination level this means that the destinations should be able to

> ...offer a satisfactory experience to tourists, maximizing profits for the private sector, generating development for the local community, and guaranteeing environmental preservation and institutional sustainability. (Durán-Román et al., 2021, p. 2)

In the sustainable tourism discourse, multiple different terms have been introduced to describe the different niches under sustainable tourism, sometimes providing added confusion about the terminology. Swarbrooke (1999) states that terms like ecotourism, responsible tourism, and alternative tourism are all related to sustainable tourism but not exactly synonymous with it, although according to Connell (2000), the terms are often used synonymously. A general observation can be made that sustainable tourism, by default, encompasses all dimensions of sustainability under one concept, whereas e.g., ecotourism emphasizes the environmental impacts. Responsible tourism is another comprehensive term that includes all dimensions of sustainability under its umbrella. The difference between sustainable tourism and responsible tourism is defined by Leslie (2012): sustainable tourism is a concept and responsible refers to the behaviors and actions that can lead to sustainable tourism.

2.2 Sustainable tourism market

The demand for sustainable tourism is one of the most important global tourism trends (Euromonitor International, 2020; Visit Finland, 2021) and the demand has been growing through

the last decade (Booking.com, 2021; TripAdvisor, 2012). Substantial numbers of tourists who take sustainability seriously have been reported by multiple influential actors in the business. For instance, Booking.com's Sustainable Travel Report (2021) offers a lot of information on the global demand for sustainable tourism. They report that 82% of tourists intend to stay in sustainable accommodation. That number has gone up 19 percentage points from just five years ago. Results from the German market from 2019 show that 61% of tourists want their holiday to be as sustainable as possible (Forschungsgemeinschaft Urlaub und Reisen, 2020). This number has also grown moderately compared to earlier results.

The global COVID-19 pandemic has accelerated the growth of sustainable tourism. Euromonitor's survey shows that 76% of tourists are expected to be more concerned about sustainability after the pandemic (Euromonitor International, 2020), although the reason for this increase is unclear. Booking.com (2021) reports similar results: 61% of tourists state that the pandemic has increased their willingness to travel more sustainably in the future.

However, pro-sustainable attitudes don't always translate into similar behavior: Reiseanalyse's results show that although almost two out of three Germans support sustainability, only 6% of Germans choose a sustainably labeled holiday and only 3% compensate for their CO2 emissions (Forschungsgemeinschaft Urlaub und Reisen, 2020). According to the tourists, the main barrier to choosing sustainable products and services is the lack of availability: almost half of the tourists think that there are not enough sustainable options in the market, and 72% think that travel companies should offer more sustainable choices (Booking.com, 2021). This should be a clear indicator for the tourism industry that there is substantial demand for sustainability investments.

2.2.1 Going green - Reasons and motivations for sustainable tourism

Scholars have shown increasing interest in unearthing the factors that motivate people to consume sustainable products and services. Generally, the benefits of sustainable consumption are directed toward other people or entities (e.g., the poor, future generations, the environment, etc.) than the consumers themselves, and sustainable products are usually more costly than

“regular” ones (Steg & Nordlund, 2013; Steg, 2015). Still, a growing number of people are electing to divert from their old ways towards a more sustainable way of living, even if it came with a higher price tag. What could explain this behavior?

Values, attitudes, and norms are traditionally seen as major influencers toward a more sustainable way of consumption. Social psychological theories like the theory of planned behavior, the norm activation model, and the value-belief-norm theory are often cited and applied when examining the antecedents for sustainable choices (Rhou & Singal, 2020; Steg & Nordlund, 2013).

Personal values are seen as a very important factor affecting people’s consumption choices. Steg (2015) lists three processes through which values can affect pro-sustainable behavior. First, the values one prefers and holds important can direct the attention and preferences toward sustainable consumption. In general, those who prioritize biospheric and altruistic values tend to show higher degrees of pro-sustainable behavior than people who prioritize hedonic and egoistic values (Steg, 2015).

Secondly, values contribute through a process called norm activation. People with a high preference towards biospheric values show greater awareness of environmental issues, which then translates into their consumption behavior as consumption of sustainable products (Steg, 2015). Moral and normative concerns as well as ethical and environmental awareness have been found to predict pro-sustainable behaviour not only in general literature (Katt & Meixner, 2020; Steg & Vlek, 2009; Steg & de Groot, 2010) but also in tourism-related studies (Boronat-Navarro & Pérez-Aranda, 2020; Kang et al., 2012; López-Sánchez & Pulido-Fernández, 2017).

Thirdly, values strengthen a person’s self-identity and self-identity strengthens their values: a person who prioritizes e.g., biospheric values see themselves as a pro-environmental person, which further strengthens their biospheric values (Steg, 2015). Especially sustainable products carry a significant symbolic value, which can be communicated to other members of the surrounding society by associating oneself with these products through consumption (Thorpe,

2010). Thus, the consumption of sustainable products can be used to reinforce one's identity also in the eyes of the surrounding community. If the consumption of sustainable products is accepted by the "social milieu", then sustainable consumption can also bring social value to the individual (Thorpe, 2010).

People's tendency to avoid negative effects can also act as a catalyst for sustainable consumption behavior. Steg and de Groot (2010), who studied the factors influencing pro-social intentions, state that the awareness and the feeling of responsibility over the adverse consequences of not acting pro-socially were important drivers for people's pro-social behavior. This shows that the stick might sometimes be a better motivator than the carrot. This finding is supported by tourism research, where negatively framed messages are, in some cases, found more effective than positively framed ones (Li et al., 2021; Randle, Kemperman, & Dolnicar, 2019).

Despite the findings presented earlier, scholars have long been able to identify the so-called attitude-behavior gap (also known as the value-action gap). The attitude-behavior gap is a phenomenon that occurs when a person's attitudes or values do not match their behavior and actions (Blake, 1999). The attitude-behavior gap is prevalent, especially with sustainable consumption, when the benefits e.g., for the environment conflict with personal benefits (Steg, 2015). One of the most notorious examples of the attitude-behavior gap in tourism is presented in Juvan and Dolnicar's (2014) paper, which examines the tourist behavior of people who volunteer for environmental organizations. Their discovery is rather shocking: even these volunteers, who are among the most environmentally friendly people on the planet, ditch their pro-sustainable attitudes in favor of a more holistic holiday experience. In addition, a multitude of explanations, such as "It's not my responsibility" or "Others behave worse", is offered to justify their behavior.

It seems that values, attitudes, and norms are not able to fully explain our behavioral patterns, especially in the context of sustainable consumption. Thus, in more recent literature, scholars have started to question the paradigm that attitudes, values, and norms would be the sole

explaining factor for pro-sustainable behavior. Instead, the role of automatic behavior and habit are offered as potential factors to explain the attitude-behavior gap (Klöckner & Verplanken, 2018). In tourism, a recent study by MacInnes, Grün and Dolnicar (2022) demonstrates that habit indeed plays a role in people's behavior regarding sustainability. This result, among others, opens an interesting new avenue toward the understanding of sustainable consumption behavior and, perhaps, towards bridging the attitude-behavior gap.

2.2.2 The company perspective

From the tourism businesses' point of view, there are several benefits and reasons to adapt sustainable practices as a part of their operation. A thorough literature review of the hospitality industry's sustainability practices found three main reasons for implementing sustainable business practices: financial benefits, consumer demand, and stakeholder relations (Kim et al., 2017). They also argue that businesses usually implement sustainability practices primarily because of the business benefits they provide. However, some studies provide findings that conflict with this conclusion: Garay and Font (2012) show that among small and medium-sized accommodation enterprises, altruistic reasons are the primary motive followed by competitiveness reasons.

Based on tourism literature, the financial benefits of sustainability practices can be split into two categories: cutting costs and increasing revenue. Regarding increasing revenue, multiple studies have shown that tourists, in general, are willing to pay more for sustainable products (for a review, see e.g., Kang & Nicholls, 2021) and that the demand for sustainable products is constantly growing (Booking.com, 2021). Adapting sustainable business practices can also be seen as a way of "futureproofing" the business, as the younger generations seem to be more aware of sustainability issues, which, supposedly, will lead to a higher demand for sustainable products and services in the future (Falk & Hagsten, 2019).

The cost-cutting approach is more tangible, as it can directly be seen in the financial reports. Investments in energy efficiency, implementing recycling programs, and reducing water consumption are among the most popular sustainability measures. As investments in energy

efficiency and water systems require a lot of investment capital, these measures are usually undertaken by bigger corporations (Kim et al., 2017), whereas smaller enterprises need to find more innovative ways of contributing towards sustainability, like smaller plates in a buffet restaurant to reduce food waste (Dolnicar, Juvan, & Grün, 2020). According to Kim et al. (2017) the first and foremost reason for these investments is usually money, and the positive environmental impacts are gained as a side product. This is justified by the fact that cost-cutting measures have been found quite effective when compared to e.g., marketing-related investments (Kim et al., 2017).

Customer demand is a second major reason for companies to adopt sustainable practices in their business. Positive effects on a firm's image and reputation, customer trust, customer satisfaction, and, most importantly, perceived value have been reported across the world in different studies (Boronat-Navarro & Pérez-Aranda, 2019; González-Rodríguez, Díaz-Fernández, & Font, 2020; Kang et al., 2012; Lee, Lee, & Gunarathne, 2019; Merli, Preziosi, Acampora, & Ali, 2019). Regarding customer acquisition and retention, firms that implement sustainability practices have a better chance of being chosen by a new customer and retaining existing ones (Boronat-Navarro & Pérez-Aranda, 2019; Rivera, Bigne, & Curras-Perez, 2016). Thus, the loyalty of green consumers can create a virtuous circle, where the "exposure" to sustainable products spurs more green consumption in the future. In addition, sustainable business practices contribute positively to both the cognitive and affective evaluation of a company (Han, Linda Lho, & Lee, 2019). In other words, sustainability has both emotional and rational appeal.

Stakeholder relationships are the third main reason to undertake sustainability measures. According to Rhou and Singal (2020), there has been a fundamental change of mindset from the shareholder primacy perspective towards the stakeholder perspective. This means that instead of just taking the shareholders' benefits into account, the businesses now find value in other stakeholder groups, such as customers, employees, and the local community, as well. Customers are, deservingly, often viewed as the most important stakeholder group, but relationships with e.g., local producers and suppliers, local authorities, and employees are also important (Kim et al., 2017). The metaphor of the carrot and the stick also works with stakeholder relationships, as

sustainable practices can be undertaken to create positive impacts or mitigate negative ones. For instance, green practices are often necessary to comply with governmental regulations and to avoid penalties (Lynes & Dredge, 2006). Purchases from local producers can be seen as a contribution towards economical sustainability, but also as a way of improving corporate image in the eyes of the locals (Kim et al., 2017). Employees are an important stakeholder group for tourism businesses. Employees' awareness of sustainability practices yields multiple benefits, such as improved job satisfaction, personal initiative, and a feeling of meaningfulness (Raub & Blunschi, 2014).

Certificates are a popular and effective way for businesses to communicate their sustainability efforts to different stakeholder groups. Obtaining a certificate can be seen as a strategic business decision, which makes the company's sustainability efforts visible in a credible manner (Kim et al., 2017). According to some studies, certifications are the most influential factor considering consumers' recognition of sustainability practices (Millar & Baloglu, 2011). In addition, green certifications have been found to increase consumers' perceived value and positive behavioral (Lee et al., 2019). Certifications might also lead to an improvement in operational efficiency and other business processes, which can later translate into better financial results. A study analyzing over 2000 Spanish hotels concluded that ISO 14001-certified hotels performed better economically than non-certified hotels (Segarra-Oña, Peiró-Signes, Verma, & Miret-Pastor, 2012).

Although certificates can have an impact by encouraging pro-sustainable behavior, there are also indications of the certifications' inefficiency. For instance, a study by Babakhani, Lee and Dolnicar (2020) found that in a restaurant setting, sustainability labels attract little attention and thus fail to direct consumption towards more sustainable menu items. Similar results were obtained from a tourism setting (Babakhani, Randle, & Dolnicar, 2020). These results suggest that companies should not blindly trust sustainability certificates, but also pay attention on how they are presented in order to gain the benefits.

2.3 Communicating sustainability

Sustainability communication can be seen as a range of activities that aim to make customers and other stakeholder groups aware of a company's sustainable product offerings, pro-sustainable values, and business practices (Arvidsson, 2010; Tölkes, 2018; Villarino & Font, 2015). The goals of sustainability communication are to "create a favourable position for the business in the marketplace" (Villarino & Font, 2015, p. 326) and to inform consumers how the company's offerings meet their needs, and, most importantly, to drive behavioral change towards consumption of sustainable products (Font & McCabe, 2017; Tölkes, 2018).

Although sustainability communication can be seen as a force for good, Font and McCabe (2017) note that tourism marketing is typically seen as an exploitative activity that fuels hedonic consumerism. Sustainability communication is not exempt from this, as companies usually undertake sustainability measures to gain business benefits. Thus, it is appropriate to contemplate whether sustainability communication works as a means to convert people from the consumption of non-sustainable products into consuming pro-sustainably, or if it just adds to the total consumption by attracting new consumers into tourism. If the latter is true, the promotion of sustainable tourism could be seen as a major paradox; a phenomenon that, despite its good intentions, is constantly working against itself.

According to Booking.com's report (Booking.com, 2021), tourists are calling for more active sustainability communication by companies. The report shows that 72% of the respondents think that there should be more sustainable choices available and around 40% feel that finding sustainable options should be made easier through e.g., filters and certifications. Tourists are also asking travel companies to offer tips on how to adopt more sustainable practices during their trips. Although the demand for more sustainable options and communicating about them is real, companies seem somewhat reluctant to widely communicate about their sustainability efforts. The report also shows that 75% of Booking.com's accommodation partners have implemented sustainable practices into their operations, but only 31% decide to actively communicate these efforts to their customers (Booking.com, 2021). The main reasons for not communicating their sustainability efforts to the customers are that they:

1. don’t believe that they do enough that is worth communicating
2. don’t think their guests are interested
3. are concerned that their guests may find the communication patronizing (Booking.com, 2021)

Deliberate under-communication of a company’s sustainability efforts is also known as greenhushing, a phenomenon studied by e.g., Font, Elgammal & Lamond (2017). The main reasons for greenhushing in Booking.com’s report are very much in line with those found by Font et al. (2017), especially the fear that the guests are not interested and that cynical customers may find their message hypocritical. The latter is connected to the fear of being accused of greenwashing, which is defined as intentionally misleading or unfounded disinformation about a company’s sustainability efforts (de Freitas Netto, Sobral, Ribeiro, & da Luz Soares, 2020). Greenwashing is perceived as unethical behavior and can cause serious damage to a company’s reputation. Hence many companies choose not to communicate about sustainability, as the risk associated with greenwashing accusations is so grave.

Although the risk of being accused of greenwashing is avoided by not communicating about sustainability efforts, refraining from sustainability communication also conveys potential disadvantages. First of all, the companies might miss out on the ever-increasing customer segment that finds sustainability important while making travel decisions. Secondly, if the company has implemented sustainability practices into their business, but refuses to communicate about them, may lead to customer inconvenience (Rhou & Singal, 2020). This finding is interesting because it implies that when the companies do communicate about their sustainability efforts, it makes the consumers aware and more accepting of e.g., a reduction in luxury. In other words, the customers sometimes need to be made aware of the product’s sustainable features to make the product valuable for them. The same product or service can thus be seen as adding to the value or reducing value depending on whether it is marketed as sustainable or not.

All things considered, companies that have implemented sustainable practices into their operations should be vocal about them. Making their efforts visible to the customers and other

stakeholders is a way of utilizing the full marketing potential of these efforts. Also, as consumers see companies' sustainability efforts as valuable and worth supporting, investing in sustainable business practices would be a feasible business strategy for tourism businesses in the long run. In a way, it is a win-win-win-situation, where the company gets to enjoy financial benefits, customers get more value for their money and both environment and surrounding society are preserved for future generations.

3 Willingness to pay

3.1 Definitions and related concepts

Willingness to pay (WTP) is a concept related to the customer decision-making process and more specifically to how consumers perceive prices. Willingness to pay can be defined as the maximum price a buyer accepts to pay for a given number or quantity of goods or services (Le Gall-Ely, 2009; Wertenbroch & Skiera, 2002). As pricing is one of the most crucial strategic decisions a company needs to make, knowing the consumers' WTP is of utmost importance to any company to create efficient and profitable pricing strategies (Wertenbroch & Skiera, 2002). Knowledge of WTP can help companies to pursue their strategic goals, be it market share or profit margins, through pricing. Knowledge of different customer segments' WTP can also be used to offer customized prices to different segments (Le Gall-Ely, 2009).

In a broader sense, WTP is one of five dimensions under the concept of behavioral intention. The other four dimensions are loyalty to the company, propensity to switch, external response to the problem, and internal response (Zeithaml, Berry, & Parasuraman, 1996). WTP can also be seen as a part of the price perception process, which also includes other related concepts such as reservation price, reference price, and acceptable price. The concept of the reservation price is synonymous with WTP, meaning the maximum price a customer is willing to pay for a product (Kalish & Nelson, 1991).

Reference price means "the price against which buyers compare the price of a product or service offered" (Monroe, 1990, cited in Niedrich, Sharma, & Wedell, 2001, p. 399). Reference price can be further divided into two main categories: external reference price and internal reference price. The external reference price is a price expressed by the retailer e.g., on an advertisement (Kopalle & Lindsey-Mullikin, 2003), while internal reference price refers to the price, or the range of prices, the customer feels is the average or expected price for the product or service in question (Le Gall-Ely, 2009). The internal reference price is based on the prices the consumer has encountered and memorized in past purchase situations (Rajendran & Tellis, 1994).

Bearden, Kaicker, Borrero, & Urbany (1992) state that although reference price and WTP are distinct concepts, they are correlated. Their study reveals that reference price affects WTP and that WTP is generally higher than the reference price. According to Le Gall-Ely (2009), reference price allows the buyer to form a judgment of the "goodness of the deal" related to the proposed price and WTP is a way to express the perceived monetary value of the offering.

Acceptable price is a range of prices a consumer is willing to pay for a product or a service (Monash Business School, n.d.). The lower threshold is a price point below which the consumers are unwilling to buy the product as they fear the product is of inferior quality. The upper threshold can be considered as the price point above which the consumer feels the product is too expensive (Adaval & Monroe, 1995). The upper threshold is therefore the consumer's WTP (Le Gall-Ely, 2009). The concepts are compared and elaborated on in Figure 4.

According to Thaler's (1983) transaction utility theory, the consumer is evaluating a transaction through two types of utility they gain from the purchase: acquisition utility and transaction utility. Acquisition utility can be expressed as the benefit or pleasure one receives after purchasing a product or service. Acquisition utility is a function of WTP and proposed price (AU = WTP – proposed price). The higher the WTP is in relation to the proposed price, the higher the acquisition utility gained (Thaler, 1983; Le Gall-Ely, 2009). In economics, acquisition utility is better known as consumer surplus (Dwyer, Forsyth, & Dwyer, 2010; Mitchell & Carson, 1989). A practical example from the world of automobiles: if the customer would be willing to pay 10 000 euros for a car and happens to get it for 8 000 euros, the consumer enjoys a consumer surplus of 2 000 euros.

The very fundamental purpose of measuring consumer WTP from the businesses' point of view is to identify the consumer surplus and try to capture it, i.e., turn it into producer surplus. Producer surplus is the net profit earned by the producer (Dwyer et al., 2010).

Transaction utility, on the other hand, refers to "the pleasure (or displeasure) associated with the financial terms of the deal" (Thaler, 1983, p. 230) and it is a function of reference price and proposed price (TU = Reference price – proposed price). As the name implies, reference price provides a point of reference against which a consumer can base their judgment about the "goodness of the deal".

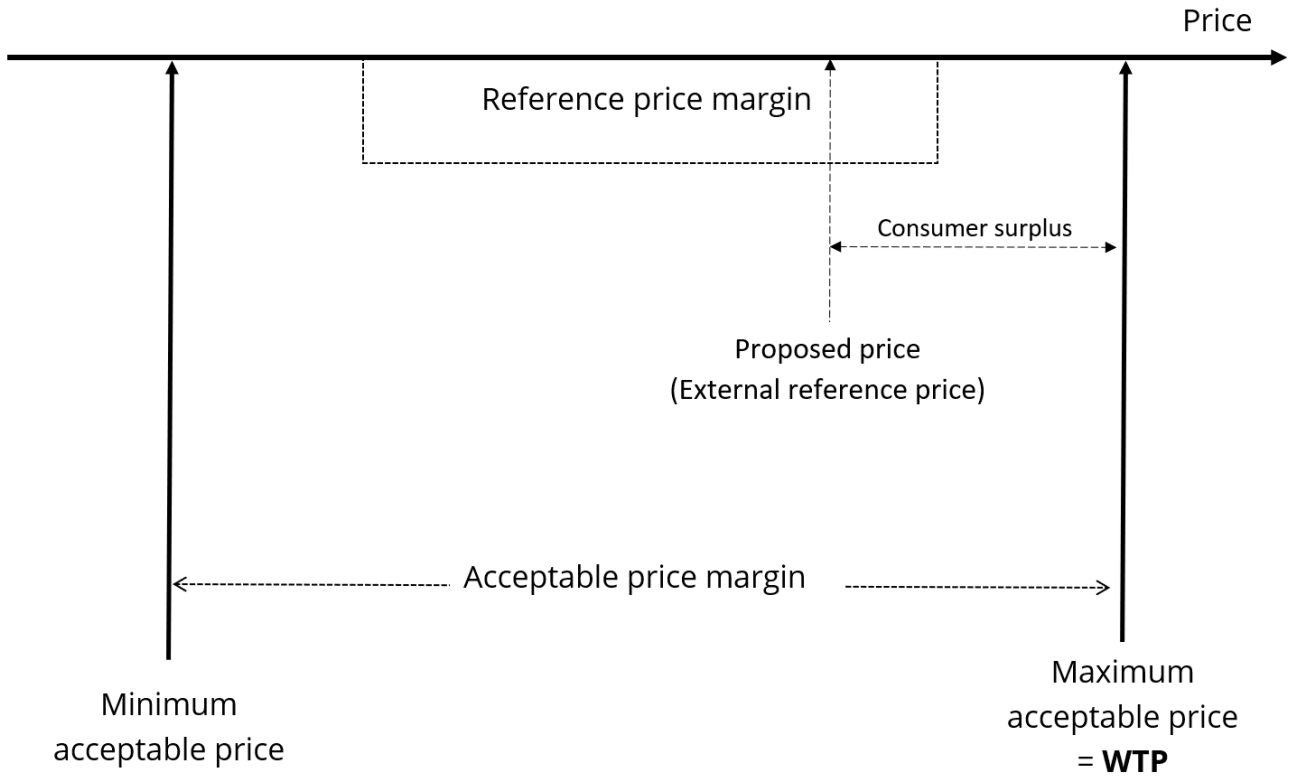

Figure 4. Reference price margin, WTP, and consumer surplus in relation to proposed price (Applied from Le Gall-Ely, 2009; Dwyer et al., 2010)

The effect of reference price is not limited to only transactional value: WTP can also be affected by reference price. Adaval & Wyer's (2011) study shows that external reference prices act as price anchors that can influence the customers' WTP. In general, high reference prices lead to significantly higher WTP than low reference prices.

3.2 Willingness to pay for sustainable products and services

Regarding the consumption of sustainable products and services, WTP has been studied in numerous contexts. Organic or other types of sustainable food products (e.g., fair trade) are a popular topic of research (Katt & Meixner, 2020; Rousseau & Vranken, 2011), with e.g., coffee (De Pelsmacker, Driesen, & Rayp, 2005), pineapples (Poelman, Mojet, Lyon, & Sefa-Dedeh, 2008) and chocolate (Ota et al., 2019) as the foci of the studies. Other examples include biofuels (Zailani, Iranmanesh, Sean Hyun, & Ali, 2019) and carbon offset schemes (Ritchie, Kemperman, & Dolnicar, 2021).

In the tourism and hospitality context, hotels have received quite a bit of attention (Kang et al., 2012; Lee et al., 2019; Nelson et al., 2021) but other areas, such as wine tourism, nature-based tourism, and pro-poor tourism products have also been studied in recent literature (Eustice, McCole, & Rutty, 2019; Li et al., 2021; Vespestad & Gressnes, 2020). The connection between tourists' WTP for sustainability has also been studied in a destination context (López-Sánchez & Pulido-Fernández, 2017; Pulido-Fernández & López-Sánchez, 2016).

Kang & Nicholls (2021) divide tourism WTP studies into two categories. The first category comprises studies that are examining the proportion of consumers willing to pay a hypothetical and non-specific price premium. In the second category, studies try to reveal the exact amount of WTP for sustainable products. The results of these studies are often reported as monetary sums or percentage premiums (Kang et al., 2012; Nelson et al., 2021).

Li et al. (2021) approach the categorization a bit differently. They divide the studies into three categories based on their aim. The first category comprises studies that use different statistical methods to evaluate different factors, such as socio-demographics, influence tourists' WTP. This is very similar to Kang & Nicholls' (2021) first category of studies. The second category of studies, like in Kang & Nicholls' (2021) work, tries to uncover the exact amount of WTP. The third category of studies focuses on how different messages and ways of framing them affect tourists' WTP. The structure of this segment follows the categorization proposed by Li et al. (2021).

In general, these studies aim to discover whether sustainable products and services are considered more valuable than "regular" goods without any special emphasis on sustainability. Lee et al. (2019) introduce the novel concept of green premium, which is specifically aimed to describe the increased WTP for environmentally sustainable products. Green premium is defined as "the customer's willingness to pay extra for a tourist destination which satisfies his/her environmental desires and expectations of sustainability management" (Lee et al., 2019, p. 599). Although the concept itself is valid, it only considers the environmental dimension of sustainability and neglects socio-cultural and economic dimensions.

The connection between sustainability and WTP is not automatically positive. Some studies point out that some proportion of consumers might be willing to pay less for a sustainable product than for a "regular", non-sustainable one. A Taiwanese study shows that consumers, on average, require a discount of 11 US$ to accept the common practices of green hotels (Chia-Jung & Pei-Chun, 2014). Millar & Baloglu (2011) find that among leisure travelers, the proportion of those willing to pay less for green lodging is almost as big as the proportion of those willing to pay more. Some consumers view green products as inconvenient and of lower quality, or that the producers are implementing green practices just to cut costs (Baker, Davis, & Weaver, 2014). Hence, they are willing to pay less for such products.

3.3 Characteristics and factors affecting willingness to pay

The concept of willingness to pay cannot be studied without addressing and understanding the factors affecting it. According to Le Gall-Ely (2009) and Durán-Román et al. (2021), willingness to pay is a dependent variable affected by multiple external and internal factors. The division is based on the consumers' viewpoint: external factors, such as product features come "from the outside". Internal factors, such as socio-demographic factors, motivations, and values, are unique to every consumer.

Depending on the context, other types of categorizations can be used as well. Katt & Meixner (2020), who review WTP studies in the context of purchasing organic food, divide the factors

affecting WTP into three categories: consumer-related, product-related, and purchasing venue-related factors. However, as venue-related factors can be classified under external factors, bidimensional classification is used in this work.

On a general level, **external factors** that have been found to affect consumers' WTP include things like external reference price (Bearden et al., 1992; Le Gall-Ely, 2009), payment method (Prelec & Simester, 2001), pricing policy (Lambrecht & Skiera, 2006) and promotions (Krishna, 1991). **Internal factors** affecting consumers' WTP include socio-demographic factors such as age, gender, income, and education (Durán-Román et al., 2021; Katt & Meixner, 2020) as well as psychographic factors like personal values and attitudes (Katt & Meixner, 2020) and knowledge of the product(s) in question (Kosenko & Rahtz, 1988). In the tourism context, electronic word of mouth (eWOM) and internal reference price has been shown to affect consumers' WTP (Galati, Thrassou, Christofi, Vrontis, & Migliore, 2021; Mantel & Papathanassis, 2016; Nieto-García, Muñoz-Gallego, & González-Benito, 2017). Examples of external and internal factors affecting WTP on a general level are listed in Table 1.

Table 1. Overview of the factors affecting willingness to pay

Factors affecting WTP	**Source**	**Notes**
External factors		
Reference price	Bearden et al. (1992), Nieto-García et al. (2017)	RP and WTP have a positive correlation
Promotions	Krishna (1991)	High frequency of promotions leads to lower WTP
Pricing policy	Labrecht & Skiera (2006)	Flat rate pricing leads to higher WTP
Payment method	Prelec & Simester (2001)	Credit card yields higher WTP than cash
Internal factors		
Age & Gender	Durán-Román et al. (2021), Katt & Meixner (2020)	Mixed results; depends on the context
Income	Katt & Meixner (2020)	Generally, a positive correlation, although not always linear
Level of education	Durán-Román et al. (2021)	Education level and WTP have a positive correlation
Market knowledge	Kosenko & Rahtz (1988)	Better knowledge of prices and market conditions lead to higher WTP
Personal values and attitudes	Katt & Meixner (2020)	E.g., ethical and social concerns

When examining the factors affecting WTP, it must be taken into account that there is quite a bit of variance depending on the context in which WTP is studied. For instance, the factors affecting

WTP in the context of discount retail stores (Kopalle & Lindsey-Mullikin, 2003) are usually different than e.g., in the market of organic food products (Katt & Meixner, 2020) or sustainable tourism (Durán-Román et al., 2021; Kang & Nicholls, 2021).

3.3.1 Factors affecting WTP for sustainable products

A closer look at sustainable tourism related WTP studies reveals that the effect of different factors tends to vary between different study locations and contexts. In their review of other sustainable tourism WTP studies, Durán-Román et al. (2021) state that socio-demographic factors such as income level, nationality, age, gender, and profession are found to be determining tourists' WTP at least to some extent. However, Kang & Nicholls' (2021) review of 20 papers studying WTP in the context of green hotels provides somewhat mixed and contradicting results to those of Durán-Román et al. (2021). Gender, for example, seems to affect WTP both ways: after analyzing ten studies, Kang & Nicholls (2021) concluded that females have higher WTP in four cases, males in two cases, and in four cases the differences are insignificant. The results concerning age, education, and, surprisingly, income were found either to be mixed or insignificant in most of the analyzed cases. In light of these mixed findings, it is impossible to conclude that there would be a set of generally accepted socio-demographic factors that affect tourists' WTP similarly everywhere. However, this does not mean that measuring the effects of these factors is completely useless. Instead, as the factors affecting tourists' WTP seem to be very context-dependent, they can be useful explanatory variables for the formation of WTP in a specific market scenario (Font & Tribe, 2001).

Using income as a variable in WTP research might seem logical, but it has some fundamental issues to it. It is a variable that is easy to measure and interpret, but it probably would make more sense to examine the effect of consumers' purchasing power on WTP. For example, studies from Spain and the USA (Kang et al., 2012; Pulido-Fernández & López-Sánchez, 2016), markets with higher price levels, have shown significantly lower levels of tourists willing to pay more for sustainability efforts than in Indonesia, where price levels are generally lower (Nelson et al., 2021). The tourists' income level is quite similar in all studies, but their purchasing power is higher in Indonesia than in higher-priced Western markets. Thus, the marginal cost of additional

sustainability efforts from the tourists' point of view is lower in Indonesia than in Spain or the USA.

As opposed to socio-demographic characteristics, there are a few psychographic factors that can be classified as rather universal predictors of WTP for sustainable products. Studies across different contexts have shown that higher levels of awareness or concern about sustainability issues have a positive correlation with WTP for sustainable products. In the organic food business, both environmental and ethical concerns are significant factors influencing WTP (Katt & Meixner, 2020). Positive attitudes towards social responsibility seem to be contributing to higher WTP for socially sustainable labeled apparel (Hustvedt & Bernard, 2010).

In tourism, Kang et al. (2012) discovered that U.S. hotel customers with higher environmental awareness are significantly more willing to pay for green hotels. Boronat-Navarro and Pérez-Aranda (2020) came to a similar conclusion: consumers that are more interested in hotels' sustainability practices show higher WTP for sustainability. The same holds in the sustainable destination context: the degree of "sustainable intelligence", a novel concept introduced by the authors (López-Sánchez & Pulido-Fernández, 2016), is a predicting factor to WTP for a sustainable destination (López-Sánchez & Pulido-Fernández, 2017; Pulido-Fernández & López-Sánchez, 2016). Similar results have been obtained while studying the main interest group of this research, German tourists. Mantel and Papathanassis (2016) find that moral norm, a concept related to ethical and environmental concern, might be a predicting factor for behavioral intention, which can then influence WTP for sustainable products.

Regarding other potential variables than socio-demographic or psychographic factors, studies have identified different trip-related variables that influence WTP for sustainable tourism products. Travelers' motivations, trip characteristics (business, family, or leisure), accommodation type, length of stay as well as travel companions are influencing sustainable tourism WTP (Kang et al., 2012; López-Sánchez & Pulido-Fernández, 2017; Vespestad & Gressnes, 2020). However, it must be noted that especially in the case of the latter variables, very little WTP research has been conducted in the sustainable tourism context.

The way sustainability communication is presented might also have an effect on willingness to pay. For example, Wehrli et al. (2017) show that tourists across multiple countries, Germany among them, show a significant preference towards emotional messages versus rational messages when choosing a sustainable tourism product. A similar result was obtained from UK tourists visiting South Africa (Li et al., 2021).

The differences between positively and negatively framed messages have also been studied with mixed results. It seems that for local sustainability causes, positive messages are more effective, whereas for international causes this is not the case (Randle et al., 2019). Li et al. (2021) who studied the framing effects in a pro-poor tourism context, tested the combined effect of positive and negative images with strong and weak written messages. Images did not have a significant effect on WTP when presented with strong messages, but weak messages, especially negative images influenced the tourists' WTP positively.

Some studies have also focused on finding out the exact sustainability attributes found most important by customers (Chia-Jung & Pei-Chun, 2014; Kelly, Haider, Williams, & Englund, 2007; Millar & Baloglu, 2011). Including these attributes in the businesses' sustainability communication is a way to increase marketing efficiency.

By using the knowledge of these predicting factors for higher WTP, researchers and businesses can identify customer segments or clusters that have the highest WTP for sustainable products. Marketing can then be directed towards these segments, as they show the highest earning potential for the businesses. Multiple studies have identified segments that have a significantly higher proportion of consumers willing to pay more or that the price premium for sustainable products is higher than with the rest of the market. This kind of segmentation has been found e.g., in the sustainable food market (De Pelsmacker et al., 2005; Didier & Lucie, 2008) as well as in tourism (Kang et al., 2012; López-Sánchez & Pulido-Fernández, 2017). The general similarity between the segments with higher WTP is that the attitudes toward sustainability are more positive than those with the rest of the market.

3.3.2 How much are consumers willing to pay for sustainable products or services?

Although it seems that an increasing proportion of consumers are finding sustainability issues important, different markets show quite a bit of variance when it comes to the consumers' willingness to pay for sustainable products and services.

For instance, when looking at the proportion of tourists who are willing to pay more for sustainable tourism products, the amounts vary quite dramatically between studies. U.S.-based studies and surveys show that the proportion of tourists willing to pay more is around 50% to 66% (Kang et al., 2012; TripAdvisor, 2012). In Europe, studies from southern Spain show a significantly lower proportion of 26% (Pulido-Fernández & López-Sánchez, 2016). Nelson et al. (2021) find that 73% of tourists visiting the island of Gili Trangwan in Indonesia are willing to pay a premium. A noteworthy factor in the Indonesian study is that 75% of the respondents are from Europe. Mantel and Papathanassis' (2016) results represent the lower end of the WTP spectrum, as their findings indicate that German cruise tourists do now show a significant willingness to pay more for sustainable products. Their study is conducted with a limited sample, which might influence the reliability of the results.

A look at the actual price premiums tourists are willing to pay reveals that the premiums are generally not very high, although they exist. In the U.S., Kang et al. (2012) find that majority of tourists would prefer paying a premium of less than 10%. According to TripAdvisor's (2012) survey, 23% of tourists would be willing to pay a premium of max $25 and 9% would be ready to spend $25-50 extra on green accommodation. The reference price level that is used in this survey is unknown. In other countries, Wehrli et al. (2011) find that Swiss tourists would be ready to pay a premium of 1,43% for a more sustainable holiday in South Africa. In Indonesia, Nelson et al. (2021) determine that the lower bound mean for tourists' WTP for sustainable accommodation is $1,55, which translates to a percentage premium of approximately 4-8%, depending on the type of accommodation. However, as noted before, a vast majority of the respondents were from Europe. Li et al. (2021) found that British tourists are willing to pay premiums of up to 15,7% for socially and economically sustainable tours in South Africa. In this

case, the respondents knew that 20% of the product's retail price will directly benefit the local poor, which seems to explain the higher-than-normal price premium.

A bit different approach is taken, once again, in southern Spain: Durán-Román et al. (2021) find that tourist demand is rather inelastic if the prices for sustainable tourism products increase up to 6%. With higher price increases, the demand decreases significantly faster, which leads to the conclusion that the tourists' approximate WTP for a more sustainable tourism experience in Spanish Costa del Sol is around 5% more than for a "regular" tourism experience.

A Japanese study examining the WTP for sustainable chocolate bars finds that the price premiums can be over 10%, which is significantly higher than in most tourism studies (Ota et al., 2019). The percentages might not be fully comparable, though, as chocolate bars' prices hover around 1€ and tourism products can cost thousands of euros. Tully & Winer's (2014) meta-analysis of 80 papers across multiple domains reveals that the mean WTP for sustainable products is 16,8%, a premium that is higher than in tourism studies. The results show that there is a clear willingness to pay more for sustainable products in other domains as well and that the WTP in other domains is higher compared to tourism. An overview of the reviewed articles is presented in Table 2.

Table 2. Overview of articles measuring the effect of sustainability on WTP

Source	**Context**	**Country**	**% of people willing to pay a premium**	**Amount of premium on average**
Wehrli et al. (2011)	Sustainable holiday package	Switzerland	N/A	1,43%
Kang et al. (2012)	Green hotels	USA	66%	~5-10%
TripAdvisor (2012)	Eco-friendly accommodation	USA	50%	23% would pay <25$, 9% $25-50
Tully & Winer (2014)	General	International	N/A	16,8%
Pulido-Fernández & López-Sánchez (2016)	Sustainable tourism destination	Spain	26,6%	6,29%
Mantel & Papathanassis (2016)	Cruise tourism	Germany	No significant willingness to pay more	No significant willingness to pay more
Ota et al. (2019)	Chocolate bars	Japan	N/A	~10%
Durán-Román et al. (2021)	Sustainable tourism experience	Spain	N/A	5%
Li et al. (2021)	Socially and economically sustainable tours	Great Britain	N/A	Up to 15,7%
Nelson et al. (2021)	Green certified hotel	Indonesia	73%	~4-8%

3.3.3 The impact of different sustainability dimensions on WTP

Consumers' sustainability preferences, their differences, and the effect on willingness to pay are one of the main interests of this study. The differences have not received very much attention among scholars, but some research on the issue has been published both in tourism as well as in general literature.

Pasanen (2018) studied the sustainability preferences of Finnish and Russian tourists when selecting an Eastern Finnish cottage holiday product. Her results show that both Finnish and Russian customers value socio-cultural attributes, such as local food and lifestyle, the most. Environmental attributes are also appreciated by the Finns, but not so much by the Russians.

The issue of how sustainability affects the consumers' WTP has been researched both in tourism and general literature but the dimensions have rarely been compared to each other in terms of how they affect WTP. In this sense, Tully & Winer's meta-analysis (2014) is one of the most interesting and thorough studies. They discover that across multiple domains, products, where the beneficiary of the sustainability efforts is humans, are valued higher than products that benefit the environment. This finding is supported by at least two other studies, where consumers' WTP is higher with Fair Trade labeled products than with organic products (Didier & Lucie, 2008; Ota et al., 2019). These findings interestingly contradict the current discussion and scientific literature about sustainability, as the topics generally revolve around environmental themes.

In tourism, the issue has been addressed by Wehrli et al. (2011), who found that environmental measures were valued higher by Swiss tourists than fair working conditions and local products. This result contradicts the findings from other domains, but as the dimensions' effect on WTP for sustainable products has been studied so little, this kind of discrepancy is understandable. What can be said, though, is that there indeed are differences between different dimensions.

3.4 Measuring willingness to pay

As willingness to pay is a complicated phenomenon that can be measured in multiple different contexts, numerous methods have been developed for measuring WTP under different circumstances. Different methods of measurement need to be used for existing products than for non-market products. Also, the type of good affects the choice of method: WTP for tangible

goods and their product attributes can be measured with different methods than the WTP for intangible, non-usable attributes such as the degree of sustainability (Mitchell & Carson, 1989).

Starting from the general categorization of WTP elicitation methods, the two main categories are formed after the method of eliciting WTP from the consumers: stated preference methods or revealed preference methods. Stated preference methods aim to reveal the consumers' WTP through surveys where they can state their WTP (Katt & Meixner, 2020). The most commonly used stated preference methods include the contingent valuation (CV) method and conjoint analysis (Dwyer et al., 2010; Wertenbroch & Skiera, 2002). The straightforward nature, simplicity, and flexibility can be seen as benefits for stated preference methods, but due to their hypothetical nature, they offer little incentive for the consumer to reveal their true WTP (Katt & Meixner, 2020; Wertenbroch & Skiera, 2002).

Revealed preference studies aim to elicit WTP by analyzing existing market data or by simulating a purchase situation (Katt & Meixner, 2020). For simulation purposes, different auction methods, such as the Vickrey auction, or other methods such as the BDM lottery can be used (Katt & Meixner, 2020; Le Gall-Ely, 2009; Wertenbroch & Skiera, 2002). An overview of the most popular WTP elicitation methods is presented in Figure 5.

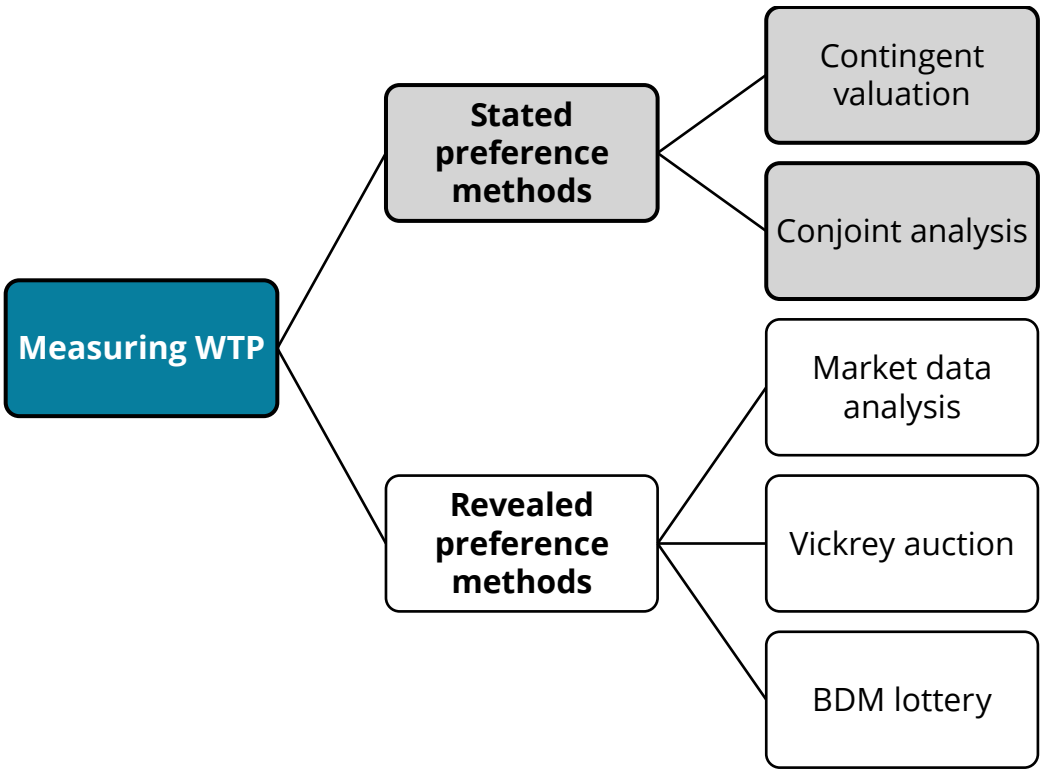

Figure 5. Popular methods used to measure willingness to pay (Sources: Dwyer et al., 2010; Katt & Meixner, 2020; Le Gall-Ely, 2009; Wertenbroch & Skiera, 2002)

3.4.1 Stated preference methods

The contingent valuation method was developed in the United States in the early 1960s and today it is a widely used method for estimating the non-use value of goods (Dwyer et al., 2010). In their seminal book about the CV method, Mitchell & Carson (1989) state that actual WTP can be elicited from the respondents through various designs: with a single question or through a series of iterated questions. In single-question methods, as the name implies, respondents are asked only one question where they state their WTP. A direct question can be formed either as an open-ended or as a close-ended question, where the respondent is forced to answer either yes or no to a monetary sum presented in the questionnaire (Le Gall-Ely, 2009). The payment card method, where the respondents are presented with multiple options in one question (Mitchell & Carson, 1989), can be seen as a hybrid solution between open-ended and close-ended questions. In a payment card survey, the respondent can be asked to indicate the highest price they are willing to pay while being given options ranging from 0€ to 100€ with 5€ intervals.

In addition to the single-question format, the questionnaire can also consist of a series of questions intended to uncover the respondents' WTP as truthfully as possible. A frequently used CV format is a bidding game, where the respondents are asked multiple questions regarding the price they are willing to pay. The respondents are presented with a price and asked simply whether they would be willing to pay the given sum, e.g., 100€. If the answer is yes, new follow-up questions are presented with steady price increases until the respondent says no, thus indicating their maximum WTP (Frew, Wolstenholme, & Whynes, 2004).

In addition to the CV method, another popular stated preference method is the conjoint analysis method. Conjoint analysis can be used to examine the trade-offs a consumer makes between different product attributes, and the price is one of them (Green, Krieger, & Wind, 2001; Wertenbroch & Skiera, 2002). In conjoint analysis studies, the respondents are presented with multiple-choice sets where the attributes vary slightly between each set. By asking the respondents to either state their preferences or by rating or ranking the products, WTP for each product attribute can be calculated (Le Gall-Ely, 2009). Thus, conjoint analysis can be used to discover which product attributes are found most valuable by the customers.

The main limitations concerning stated preference methods are hypothetical and strategic bias. As the stated preference methods usually take place in a hypothetical market setting or with hypothetical products, they are subject to hypothetical bias (Mitchell & Carson, 1989). Stated preference methods usually generate higher WTP values that revealed preference methods, and this difference is believed to be a result of hypothetical bias (Le Gall-Ely, 2009). Another major limitation is the occurrence of strategic bias. This refers to the behavior, where the respondent gives a value other than their true WTP in an attempt to influence the price or value of the provision (Le Gall-Ely, 2009; Mitchell & Carson, 1989). Strategic behavior is related to compliance bias and social desirability bias, where the respondent's answers are affected by the willingness to please the interviewer (Mitchell & Carson, 1989). In an online study with a hypothetical market scenario, strategic bias is unlikely to affect the results.

3.4.2 Revealed preference methods

Analyzing existing market data, the Vickrey auction and BDM lottery are prominent revealed preference methods for WTP research. Although these methods are more complex, the strength of revealed preference methods compared to stated preference methods is that they are incentive-compatible. This means that the respondents can achieve the best outcome for themselves by telling the truth (Nisan, Roughgarden, Tardos, & Vazirani, 2007). Incentive compatibility thus ensures that the effect of strategic bias is minimized.

Market data analysis has high validity because the conclusions are based on data on actual consumer behavior (Wertenbroch & Skiera, 2002). The biggest shortcomings of market data analysis are that the method cannot be used in hypothetical settings or with other than in-market products.

Auction methods are an interesting group of WTP elicitation methods, as some of them are incentive-compatible and some are not. Probably the most well-known auction method is the English auction, where bids are posted openly and the highest bid wins. As the bids are open, the method is very susceptible to strategic over- or underbidding, thus limiting the ability to reveal the maximum WTP of the consumer and maximizing their true WTP. For more accurate WTP measurement purposes, the Vickrey method, or second-price sealed-bid auction, has been introduced. In a Vickrey auction, all bids are sealed and after all bids have been placed, the highest bid wins the auction, but the price that the highest bidder must pay is in accordance with the second highest bid (Le Gall-Ely, 2009). This eliminates the strategic under-bidding seen in English auctions.

BDM lottery is another incentive-compatible method used to measure WTP. In a BDM lottery, participants are asked to provide a maximum price they are willing to pay for a product, and the final price is then determined randomly, e.g., by drawing a ball out of a lottery machine (Le Gall-Ely, 2009). A common factor between the BDM lottery and Vickrey auction is the fact that in both methods the participant's bid does not affect the final price, thus giving the incentive to bid according to their true WTP.

4 Methodology

This study employs quantitative research methodology. Quantitative research, by definition, is "Explaining phenomena by collecting numerical data that are analyzed using mathematically based methods" (Muijs, 2011, p. 13). As this study attempts to measure numerical differences and causal relationships between variables as well as to test hypotheses, quantitative methods are most suitable (Muijs, 2011). In addition, almost all prior research on WTP has been conducted using quantitative methods, which further supports the selection of quantitative research methods.

This study is attempting to measure the value of different sustainability dimensions to German tourists. As sustainability is something that one cannot buy or sell, it is a non-market good. According to Mitchell and Carson (1989), the contingent valuation method is a suitable method when trying to study WTP for non-market goods. Thus, the contingent valuation method was chosen for this research. It is a very scalable and versatile method that can be used with a wide variety of data collection and elicitation methodologies. The CV method can also be used in studies with a rather small sample size.

The chosen elicitation method is the payment card method, which is a single-question method where the respondent is presented with a range of prices and asked to choose the highest sum they would be willing to pay for the product (Mitchell & Carson, 1989). Traditionally, the options are presented as a list, but in online surveys, a slider with a fixed price range can be used instead (OECD, 2018). The payment card method was chosen because of its flexibility and suitability for small-scale contingent valuation studies (Bayoumi, 2004). Also, the data gained from payment card studies is rather straightforward to analyze (Tian, Yu, & Holst, 2011) and it can be seen as more reliable than data from e.g., bidding game studies, where WTP is generally higher than in payment card studies (Frew et al., 2004). Payment card method has been applied in tourism studies e.g., examining the recreational value of whale watching in Iceland (Cook, Malinauskaite, Davíðsdóttir, & Ögmundardóttir, 2020).

4.1 Structure of the questionnaire

The survey questionnaire for this study was formed based on the experiences gained from earlier WTP research and on the theoretical foundation of WTP research. Earlier research on willingness to pay for sustainable products provides a good overview of the factors that are found significant and worth testing. For example, the effect of socio-demographic factors such as age, gender, income, and education on WTP has been studied a lot, but the results seem to vary a lot between contexts (Kang & Nicholls, 2021; Katt & Meixner, 2020). Thus, selected socio-demographic factors were measured to gain insight into their potential effect on WTP for different sustainability dimensions in this specific context.

The selection of methodology for measuring WTP in this study proved challenging because studies like this, where different dimensions of sustainability are explicitly compared in terms of WTP, have not been conducted earlier. Studies comparing two dimensions have been conducted by e.g., Ota et al. (2019) and Tully and Winer (2014), but this research extended the scope to all three dimensions. Earlier literature concerning different methodologies of WTP measurement provided sufficient theoretical background in selecting the most suitable approach for the study.

The questionnaire, which was presented in either English or German, consisted of three parts: in the first part, the respondents were asked to state their earlier experience with traveling to Finland and whether they have experience with cottage accommodation. In the second part, the respondents' willingness to pay for cottage products with different sustainability attributes was examined. The cottage and its attributes were first introduced to the respondents: information about the basic attributes such as location, equipment, beds, and price were presented. This version intended to act as a baseline against which the respondents could compare the three cottages with special emphasis on sustainability.

After presenting the baseline cottage, respondents were presented with three cottages: cottages 1, 2, and 3 each representing one dimension of sustainability (environmental, socio-cultural, and economical) through different attributes associated with each dimension. The attributes were derived from Pasanen's (2018) earlier research, which focused on examining sustainability

attributes that would be most effective in marketing cottages to Finnish and Russian customers. Respondents were asked to state their willingness to pay for each cottage separately to discover potential differences between the valuation of different cottages and their sustainability attributes. The manipulated cottages were presented in random order to mitigate order bias and thus improve reliability.

A manipulation check question was introduced to verify the effect of the sustainability attributes. After each cottage, the respondents were asked to rate the environmental friendliness, social sustainability, and economic sustainability of each cottage with a 7-point Likert scale (Wu & Yang, 2018). A manipulation check question was also asked after the baseline cottage, so the results from the manipulated cottages were compared against the baseline. In addition, an instrumental manipulation check question was introduced to detect respondents who were not reading the instructions which could negatively affect the data quality (Oppenheimer, Meyvis, & Davidenko, 2009).

In the manipulation check questions, the respondents were asked to rate the following statements based on how much they agreed with them (1 = Strongly disagree, 7 = Strongly agree): “Staying in this cottage is environmentally friendly” for environmental sustainability, “Staying in this cottage helps to preserve and develop local culture and social justice” for socio-cultural sustainability and “The owner of this cottage manages the company's financial affairs in a responsible and transparent way” for economic sustainability.

The manipulation check revealed that the cottage attributes communicate each sustainability dimension successfully: each cottage reached the highest rating in their respective sustainability category. Detailed results of the manipulation check are presented in Table 3.

Table 3. Results of the manipulation check

Cottage	Environmental sustainability	Socio-cultural sustainability	Economic sustainability
Baseline cottage	5,25	4,59	4,73
Cottage 1 (Environmental)	**6,45**	5,00	5,23
Cottage 2 (Socio-cultural)	4,90	**5,72**	5,14
Cottage 3 (Economic)	4,74	5,23	**5,32**

In the third part, socio-demographic questions were asked to gain an understanding of the sample composition and to test the effect of different socio-demographic factors on willingness to pay. The socio-demographic factors were derived from earlier literature examining WTP in tourism (Kang et al., 2012; e.g., López-Sánchez & Pulido-Fernández, 2017). The research items covering socio-demographic factors were formed similarly to those in the Federal Statistical Office of Germany's census surveys (Statistisches Bundesamt (Destatis), 2021). A 500€ gift card to Kivirannan Lomamökit was offered to one randomly selected participant as a raffle prize to incentivize participation.

4.2 Data collection and sample preparation

The study was conducted as an online survey. A purposive sampling method was applied as the questionnaire was distributed to the sample population through five different bloggers, influencers, and media outlets who specialize in topics related to travel to Finland or the Nordic countries. The goal of this approach was to reach the most potential target audience, i.e., the people who are knowledgeable of Finland as a tourism destination, as efficiently as possible.

A pretest was conducted with 15 respondents, mainly of German or German-speaking descendence, to assess the functionality and understandability of the survey questionnaire. Small changes were made based on the feedback gained from the pretest, e.g., to the mobile layout and wording of the questionnaire.

The data was collected in June 2022. The online questionnaire was open for two weeks, during which 279 responses were collected. After the data collection, non-valid responses were deleted from the dataset. Seven responses were deleted due to a failed instrumental manipulation check, 25 respondents did not fit the inclusion criteria of being either a German citizen or living permanently in Germany, and six responses were deleted for other reasons such as having answered the survey too quickly. In total, 241 valid responses were left for data analysis.

Before analyzing the data, some variables were transformed to better suit the data analysis. The data from respondents' birth years were recoded into age group variables with six age groups that are the same as those used by the Federal Statistical Office of Germany. The response variables to multiple choice questions regarding travel companions as well as professional status were both recoded into a single variable. To gain more robust results from the analysis, the respondents who had stated their household income (N=213) were grouped into three groups based on their household income level: low-income respondents, whose household income was less than 1500€ per month (N=26), middle-income respondents, whose household income was more than 1500€ per month but less than 4000€ (N=115) and high-income respondents, whose monthly household income was more than 4000€ (N=72).

4.3 Methods of data analysis

To choose the appropriate methods for data analysis, the study must examine whether the data analysis should be conducted using parametric or non-parametric tests. One way to test this is to see whether the data is normally distributed or not. Kolmogorov-Smirnov's test of normality showed that the responses for all three questions regarding willingness to pay were not normally distributed ($p<.05$). Even though the data was not normally distributed, the sample size is over 30, which means that the central limit theorem applies to the sample. Based on the central limit theorem, parametric tests can be used for testing the data. (Finnish Social Science Data Archive, n.d.; Metsämuuronen, 2005)

In addition to the non-normal distribution of the WTP data, a boxplot analysis showed that the data contained 14 outliers out of the 723 total observations in the three WTP questions. According to Metsämuuronen (2005), in the case of non-normal distribution or outliers, the data can be transformed with e.g., Log10 or square root transformation to reach normal distribution and get rid of outliers. However, neither Log10 nor square root transformations did not affect the data distribution nor the presence of outliers. An attempt was also made to transform the outlier values into averages, but the transformed dataset did not provide significantly different results in the data analysis compared to the non-transformed data. Thus, the non-transformed data were used in the data analysis.

As the sample was large enough to be suitable for parametric analysis based on the central limit theorem, the data still had outliers. However, it must be noted that the outliers accounted for less than 2% of the total observations and that the outliers were still within the predetermined response range of 0€ to 300€.

To reach reliable results, both parametric and non-parametric tests were conducted on the dataset. Hypotheses 1, 1a, 1b, 1c, and 2 were tested with a One-sample t-test as well as Wilcoxon's Signed Rank test. Before testing H3 and the effect of socio-demographic variables, the respondents were grouped into clusters using K-means cluster analysis based on their willingness to pay for the cottages. Hypothesis 3 and the effect of socio-demographic variables on the respondents' willingness to pay were tested with one-way ANOVA and the Kruskal-Wallis H test.

As both parametric and non-parametric tests produced similar results, the results of parametric tests are reported in this study. A more detailed description of each analysis is included in the results section.

5 Results

5.1 Respondents' socio-demographic characteristics

When looking at the respondents' socio-demographic characteristics, some distinctive characteristics can be observed. Socio-demographic characteristics are presented in Table 4. The gender distribution of the sample is skewed, as 81,7% of the respondents identify as female. When comparing the age distribution to the German population (Statistisches Bundesamt (Destatis), 2021), middle-aged people are overrepresented in the sample, as 35–55-year-old people make up over 60% of the sample. Regarding the respondents' relationship status and the number of children living in their household, over 60% of the respondents live in a relationship and only 29% have children living in their household. The sample features a higher proportion of couples and a lower proportion of singles than the German population does. The sample also features a higher proportion of childless households (71%) than the German population (63,1%) (Statistisches Bundesamt (Destatis), 2021).

Table 4. The respondents' socio-demographic characteristics

	Number (%)		Number (%)
Gender (N=241)		**Relationship status (N=241)**	
Female	197 (81,7%)	Single	68 (28,2%)
Male	41 (17%)	Married or in a relationship, living together	144 (59,8%)
Other/No answer	3 (1,2%)	Married or in a relationship, living separately	10 (4,1%)
		Divorced	10 (4,1%)
		Widowed	7 (2,9%)
		Other/No answer	2 (0,8%)
Age (N=241)		**Number of children under 18 in the household (N=241)**	
15-25	11 (4,6%)	0	171 (71,0%)
25-35	43 (17,8%)	1	35 (14,5%)
35-45	81 (33,6%)	2	28 (11,6%)
45-55	70 (29,0%)	3 or more	7 (2,9%)
55-65	27 (11,2%)		
Over 65	9 (3,7%)		

Table 5 features the respondents' socio-economic characteristics. Regarding income, the sample features a higher proportion of high-income households than the German population (Statistisches Bundesamt (Destatis), 2021). The portion of respondents earning more than 4000€ per month is 29,8%. The sample seems to be fairly highly educated, as over 44% of the respondents have completed a bachelor's degree, master's degree, diplom, or PhD.

Out of the respondents, 57,3% are employed full-time and only two respondents stated that they are unemployed. A vast majority of the respondents work as office workers (67,8%), which is a higher proportion than in the German population (Statistisches Bundesamt (Destatis), 2021).

Table 5. The respondents' socio-economic characteristics

	Number (%)		Number (%)
Household net income (N=213)		**Professional status (N=236)**	
500 € - 1000 €	12 (5,0%)	Entrepreneur	13 (5,5%)
1000 € - 1 250 €	5 (2,1%)	German civil servant	20 (8,5%)
1 250 € - 1 500 €	9 (3,7%)	Office worker	160 (67,8%)
1 500 € - 2 000 €	20 (8,3%)	Worker	4 (1,7%)
2 000 € - 2 500 €	20 (8,3%)	Student	19 (8,1%)
2 500 € - 3 000 €	26 (10,8%)	Unpaid family worker	2 (0,8%)
3 000 € - 3 500 €	28 (11,6%)	Unemployed	2 (0,8%)
3 500 € - 4 000 €	21 (8,7%)	Retired	12 (5,1%)
4 000 € - 5 000 €	42 (17,4%)	Other	4 (1,7%)
5 000 € or more	29 (12,0%)		
10 000 € or more	1 (0,4%)		
Education (N=234)		**Employment status (N=232)**	
High school degree or vocational degree	43 (18,4%)	Full-time employment	133 (57,3%)
Apprenticeship degree (Ausbildungsabschluss)	69 (29,5%)	Part-time employment	77 (33,2%)
Bachelor's degree	37 (15,8%)	Unemployment	2 (0,9%)
Master’s degree	29 (12,4%)	Other	20 (8,6%)
Diplom	37 (15,8%)		
PhD	2 (0,9%)		
Other	17 (7,3%)		

The respondents were asked about their earlier experience of traveling to Finland, traveling frequency, traveling companions, and whether they had had earlier experiences of Finnish cottage accommodation. The detailed results are presented in Table 6. Around 87% of the respondents have traveled to Finland before and about 92% of those with earlier travel experience to Finland have done so during the last five years. The respondents seem to be rather frequent travelers, as 50% of the respondents have traveled to Finland at least three times during the last five years. Most respondents travel either with their family, friends, or partner. Half of the respondents have stayed in a Finnish cottage before answering the survey.

Table 6. Respondents' earlier experiences of traveling to Finland

	Number (%)		Number (%)
Traveled to Finland before (N = 241)		**Stayed in a Finnish cottage before (N = 210)**	
Yes	210 (87,1%)	Yes	105 (50,0%)
No	31 (12,9%)	No	104 (49,5%)
		I don’t know	1 (0,5%)
Times traveled to Finland in the last 5 years (N = 210)		**When you traveled to Finland, who did you travel with? (N = 210)**	
0	17 (8,1%)	Alone	26 (12,4%)
1	39 (18,6%)	Partner	44 (21,0%)
2	49 (23,3%)	Friends	55 (26,2%)
3 or more	105 (50%)	Family	70 (33,3%)
		Guided tour	9 (4,3%)
		Other	6 (2,9%)

5.2 Sustainability communication's effect on German tourists' willingness to pay

The analysis revealed that there are differences in how communication about different sustainability dimensions affects German tourists' willingness to pay. According to hypotheses 1, 1a, 1b, and 1c, sustainability communication of all sustainability dimensions should affect the German tourists' WTP positively.

A one-sample t-test was performed to compare the effect of environmental, socio-cultural, and economic sustainability communication on the tourists' WTP. The mean WTP of each sustainable cottage was tested against the market price (150€) of a control cottage with no specific emphasis on sustainability. The T-test is one of the most popular statistical methods for comparing means either against a predefined mean or between two groups (Metsämuuronen, 2005). In this case, the means were compared against a predefined market price. Hence, a one-sample t-test was used. Thanks to their robustness, t-tests are also applicable to datasets that are not normally distributed, as long as the sample size is large enough and the central limit theorem applies (Finnish Social Science Data Archive, n.d.).

The average willingness to pay for all three cottages is 157,2€ with notable differences between the environmentally, socio-culturally, and economically sustainable options. The t-test revealed that the environmentally sustainable cottage gained an average WTP of 172,61€ ($p<.001$), socio-culturally sustainable cottage an average WTP of 150,35€ ($p=.900$), and the economically sustainable cottage an average WTP of 148,65€ ($p=.614$). According to the results, environmental sustainability is the only dimension of sustainability that significantly affects German tourists' willingness to pay. Further analysis shows that 66,4% of respondents were willing to pay a premium for the environmentally sustainable cottage. The mean premium for the environmentally sustainable cottage is 22,61€ (15,1%). Detailed results of the analysis are presented in Table 7.

Table 7. Tourists' willingness to pay for different cottages. Significant results are bolded. The significance level is .050

Cottage	Mean WTP	Std. Deviation	Willing to pay a premium	Mean premium €	Mean premium %	Sig. (2-tailed)
Environmentally sustainable (Cottage 1)	**172,61€**	**47,92**	**66,4%**	**22,61**	**15,1%**	**<.001**
Socio-culturally sustainable (Cottage 2)	150,35€	43,42	46,5%	0,35	0,2%	.900
Economically sustainable (Cottage 3)	148,65€	41,44	45,6%	-1,35	-0,9%	.614

As environmental sustainability communication was the only form of sustainability communication that had a statistically significant impact on the tourists' WTP, H1 is partially supported. H1a is supported, but H1b and H1c are rejected since socio-cultural and economic sustainability communication do not have a significant impact on the tourists' WTP.

Hypothesis 2 is also rejected as socio-cultural sustainability communication does not have a significant impact on WTP. In fact, the situation is exactly the opposite of that hypothesized: environmental sustainability communication affects WTP more than socio-cultural sustainability.

5.3 K-means cluster analysis and One-way ANOVA analysis

To be able to examine the relationship between socio-demographic factors and willingness to pay more closely, a K-means cluster analysis was conducted to group the respondents into groups based on their willingness to pay for all cottages. According to Metsämuuronen (2005), cluster analysis is best suitable for situations where the researcher wants to classify

observations or variables into similar groups. K-means cluster analysis is a suitable method for analyzing larger datasets and is thus chosen for this study.

The clusters were formed based on three variables measuring the tourists' willingness to pay for the three cottages. Standardizing the variables is important, although not mandatory, if the variables are measured with the same scale (Metsämuuronen, 2005). As all variables, in this case, are measured using the same scale of 0 to 300, standardizing the variables is not critical. In addition, cluster analyses with both standardized and unstandardized variables produced similar results. Hence, the results from the cluster analysis with the original, unstandardized variables are reported. The number of clusters was set to three and the analysis was completed by the 8th iteration, i.e., the changes in cluster centers reached zero. ANOVA and Tukey's HSD post-hoc test, which are among the most popular methods for this purpose (Metsämuuronen, 2005), were used to confirm the results of the cluster analysis. The tests confirmed that the clusters are significantly different from each other ($p<.001$).

Three clusters of respondents were thus formed: respondents with low willingness to pay (N=84), respondents with medium willingness to pay (N=129), and respondents with high willingness to pay (N=28) for sustainable cottages. A detailed analysis of the clusters can be found in Table 8.

Table 8. K-means cluster analysis results

Cluster name	**Number of cases**	**Mean WTP for Cottage 1**	**Mean WTP for Cottage 2**	**Mean WTP for Cottage 3**
High WTP	28	258,14€	228,71€	214,89€
Medium WTP	129	184,64€	160,76€	160,21€
Low WTP	84	125,62€	108,25€	108,82€

The results show that in the High WTP group, the respondents are willing to pay the biggest amount of money for all cottages. Medium WTP is the largest group with 129 respondents. This group is willing to pay less money than the High WTP group, but the mean WTP for all cottages is still higher than the proposed market price of 150€. The Low WTP group comprises 84 respondents and their willingness to pay is significantly lower than that of the other two groups. Cottage 1, the environmentally sustainable option, garners the highest willingness to pay from each group.

After conducting the cluster analysis, the relationship between the socio-demographic variables and willingness to pay was examined. In this case, the indicator for willingness to pay was the cluster membership in either the low, medium, or high WTP clusters. One-way ANOVA tests were performed to compare the effect of socio-demographic variables on the respondents' willingness to pay, i.e., cluster memberships. The one-way ANOVA results for all tested variables are presented in Table 9.

Table 9. Results from One-way ANOVA that was performed to examine the effect of socio-demographic variables on WTP. Statistically significant results are bolded. *No significant differences ($p<.05$) were found between professional status groups

Variable name	**Significance**	**p-value**
Has traveled to Finland before	Not significant	.267
Number of times traveled to Finland in the last five years	Not significant	.763
Travel companion	Not significant	.726
Has stayed in a cottage	Not significant	.512
Age	Not significant	.132
Gender	Not significant	.887
Income	Not significant	.152
Relationship status	Not significant	.693
Number of children	Not significant	.895
Professional status*	**Significant**	**.021**
Employment status	**Significant**	**.017**

One-way ANOVA revealed that there were only two variables with statistically significant differences between the WTP clusters: employment status (F(3, 228) = [3,475], p=.017) and professional status (F(8, 227) = [2,321], p=.021). However, in the case of the professional status variable, Tukey's HSD test for multiple comparisons did not reveal any significant (p<.05) differences between individual groups.

Tukey's HSD test for multiple comparisons for the employment status variable revealed that those respondents who are employed full-time have significant differences with the respondents who state their employment status as Other (p=.012, 95% C.I. =.08, .93).

Table 10. Results of Tukey's HSD test for multiple comparison regarding different employment status groups. The significant result is bolded. Significance level p<.05.

		Mean difference	Std. Error	Sig.	C.I. 95% lower bound	C.I. 95% upper bound
Full-time employment	Part-time employment	.101	.098	.728	-.15	.35
	Unemployed	.504	.485	.727	-.75	1.76
	Other	**.504**	**.163**	**.012**	**.08**	**.93**

A look at the descriptive statistics reveals that a vast majority, 80%, of the respondents in the Other category belong to the Low WTP cluster. The professional statuses of the 20 respondents in the Other category are 8 retired, 6 students, 2 unpaid family workers (e.g., stay-at-home parents), 2 entrepreneurs, and 2 unspecified/other. The distribution is elaborated in Figure 6.

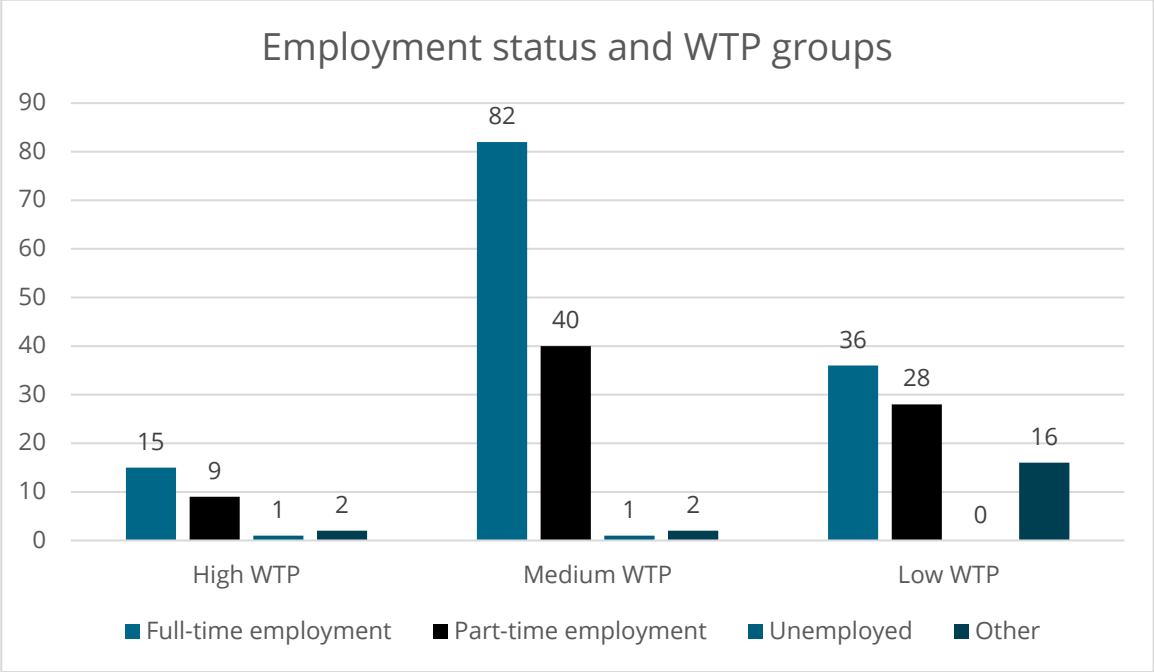

Figure 6. Distribution of the respondents' employment statuses across WTP groups

6 Discussion and conclusions

6.1 Discussion of the results

The goal of this research was to examine how communicating different sustainability dimensions affect German tourists' willingness to pay for a Finnish holiday cottage. The main interest lay in discovering whether sustainable products create higher WTP than regular products as well as in the potential differences between sustainability dimensions: does one dimension create higher willingness to pay than the other? How big are these differences, or is there any difference at all?

Two main research questions were presented: How does the promotion of different sustainability dimensions affect German tourists' WTP for a Finnish cottage product and how do socio-demographic factors affect German tourists' WTP for sustainable cottage products? In addition, three hypotheses and three sub-hypotheses were formed based on earlier literature. The hypotheses and the results regarding each hypothesis are presented in Table 11.

Table 11. Results of hypothesis testing

Hypothesis	**Result**
H1: Sustainability communication affects German tourists' WTP positively	Partly supported
H1a: Communication about environmental sustainability affects German tourists' WTP positively	**Supported**
H1b: Communication about socio-cultural sustainability affects German tourists' WTP positively	Not supported
H1c: Communication about economic sustainability affects German tourists' WTP positively	Not supported
H2: Communication about socio-cultural sustainability affects German tourists' WTP more positively than communication about environmental sustainability	Not supported
H3: Income has a moderating effect on German tourists' WTP for sustainable cottage products	Not supported

Based on earlier literature, it was fair to assume that all dimensions of sustainability (environmental, socio-cultural, and economic) would have a positive effect on tourists' WTP. The results show that only environmental sustainability communication has a statistically significant positive effect on German tourists' willingness to pay. This means that H1 is partly supported since H1a is supported and H1b and H1c are not supported.

The effect of environmental sustainability has been the most popular topic in earlier tourism research regarding sustainability communication's effect on tourists' WTP. Multiple earlier research papers have shown that environmental sustainability has a significant positive effect on tourists' WTP in different contexts: Kang et al. (2012) have found a positive effect in the U.S., Nelson et al. (2021) in Indonesia, and Wehrli et al. (2011) in Switzerland.

Over 66% of the respondents in this study were willing to pay a premium for the environmentally sustainable accommodation option. The proportion is quite similar to those examined in earlier

studies (Kang et al., 2012; Nelson et al., 2021; TripAdvisor, 2012). In the context of sustainable tourism destinations, Pulido-Fernández & López-Sánchez (2016) found that only 26,6% of respondents were willing to pay a premium for a more sustainable option, which is a lower proportion than in this study.

Regarding the amount of premium, this study provided a result that is higher than those in earlier literature. This study found that the mean premium for the environmentally sustainable option is 22,61€, which translates into a 15,1% premium. Studies examining the effect of environmental sustainability on WTP have found that premiums are generally lower (Kang et al., 2012; Nelson et al., 2021; Wehrli et al., 2011). The premiums are generally lower also in other contexts, as only two of the reviewed articles reveal a higher premium for sustainable products: Li et al. (2021) found that British tourists were willing to pay a premium of up to 15,7% for socio-culturally sustainable tourism products. In addition, Tully and Winer's (2014) meta-analysis concluded that the average premium for sustainable products is approximately 16,8%.

Socio-cultural sustainability was also expected to have a positive effect on German tourists' WTP, as earlier research has shown that it is an important factor in increasing tourists' WTP in different contexts. However, this study did not provide statistically significant results that socio-cultural sustainability would affect WTP.

The result is somewhat surprising, as earlier literature in both tourism (Li et al., 2021) and other contexts (Ota et al., 2019; Tully & Winer, 2014) have shown that socio-cultural sustainability is increasing the consumers' WTP. Hypothesis 2 was even assuming that socio-cultural sustainability would be a more important factor in generating positive WTP than environmental sustainability. This assumption was based on e.g., Tully & Winer's (2014) and Ota et al.'s (2019) results, where both concluded that socio-cultural sustainability is generating higher WTP than environmental sustainability. The study provided opposite results since environmental sustainability was the only significant factor affecting WTP positively.

Economic sustainability was also assumed to have a positive effect on WTP, but no significant results were obtained on economic sustainability's effect on tourists' WTP. The result differs from earlier literature, where economic sustainability has been found to generate positive WTP in both tourism (Li et al., 2021) and retail contexts (Ota et al., 2019).

The second research question was presented to examine what kind of effect socio-demographic factors might have on German tourists' WTP. The research shows that only the respondents' employment status affects their WTP. Socio-demographic factors, such as education level (Durán-Román et al., 2021; López-Sánchez & Pulido-Fernández, 2017), market knowledge (Kosenko & Rahtz, 1988) and income (Durán-Román et al., 2021; Katt & Meixner, 2020; López-Sánchez & Pulido-Fernández, 2017), all of which were found to have a significant effect on WTP in earlier literature, were not identified as relevant factors affecting WTP in this study. Especially income's effect on WTP has been often observed as significant in earlier literature, which lead to the formation of H3, a hypothesis about income's positive effect on WTP that was not supported.

Employment status, or labor status, has been studied by e.g., López-Sánchez & Pulido-Fernández (2017), who made a surprising discovery that employed respondents were willing to pay less for sustainable tourism than unemployed respondents. This study provides opposite results, as fully employed respondents are found to have higher WTP for sustainable tourism than respondents in the "Other" category, which is mainly comprised of students and retired people.

One should note that earlier literature has provided somewhat mixed results on socio-demographic factors' effect on consumer WTP (Kang & Nicholls, 2021; Katt & Meixner, 2020). Based on earlier reviews of socio-demographic factors' ability, or their inability, to predict consumer WTP, the results of this study can be described as somewhat expected. It can be concluded that especially in the field of sustainable tourism, socio-demographic factors are not a very robust and reliable way of predicting consumer WTP.

The general conclusions of the results are that environmental sustainability is the most important sustainability dimension in the eyes of German tourists traveling to Finnish cottages

(RQ1) and that socio-demographic variables play a very small, if any role in the formation of tourists' WTP (RQ2). Earlier research has found that socio-cultural sustainability tends to generate higher WTP than environmental sustainability. The respondents' nationality could be one factor explaining the difference between the results of this study and earlier literature: papers where socio-cultural and economic sustainability were found to be positively influencing WTP, the respondents were indeed from Western countries, but not from Germany.

In the literature that focuses on German tourists, we can see indications that Germans are not the most eager people when it comes to choosing or paying for sustainable options. Results from Mantel & Papathanassis' (2016) research and Reiseanalyse's results (Forschungsgemeinschaft Urlaub und Reisen, 2020) both indicate, that only a very small proportion (6%) of Germans are choosing sustainable accommodation options when they travel and that in a cruise tourism context, they are not willing to pay more for sustainable products. In this study, only 11,6% of the respondents were classified as having high willingness to pay for sustainable products. All in all, the German tourists' interest in sustainability issues seems to be rather low, which could explain the fact that socio-cultural or economic sustainability doesn't have an impact on their WTP.

Concerning the answer to RQ1 and its differing result from earlier literature, one must also consider the roles of consumers, providers, and the contexts in which the evaluation of sustainability dimensions' value takes place. When we take a look at studies, where socio-cultural and economic sustainability has a positive impact on consumers' WTP (e.g., Li et al., 2021; Ota et al., 2019), we can observe that in both cases the consumers come from a highly developed country and the provider side comes from a country or area that is less developed. In Li et al's (2021) study, British tourists were asked whether they would be willing to pay more for economically and socio-culturally sustainable tour products in South Africa if they knew the local people would benefit from the premium. Ota et al. (2019) examined the effect of both organic and Fair Trade labeling on chocolate bars in the Japanese market. Both Great Britain and Japan are highly developed countries, whereas South Africa and countries where cocoa beans are produced are less developed and might suffer from economic or social injustice.

When we compare these settings to the one in this study, Finland is a highly developed Nordic welfare state with less social or economic inequality compared to South Africa or countries like Côte d'Ivoire or Ghana, which are among the largest cocoa producers in the world. For the consumers in Li et al. (2021) and Ota et al. (2019) studies, the social and economic problems are more visible and tangible and thus the justification for paying a premium for socio-culturally and/or economically sustainable products is easier to make. In German tourists' case, the socio-cultural and economic issues of Finland might not be seen as glaringly obvious as with other countries, and thus there is no effect on WTP.

It must also be noted that for instance in Li et al's (2021) case, British tourists might experience a position of power, where they feel that by paying a premium for the sustainable tour product, they make a significant impact on the lives of locals, who are generally less wealthy than the tourists themselves. Thus, the premium can be seen as a charitable act with tangible positive consequences, which is a justification for paying a little extra for the sustainable option. This "social charity dimension" is most likely completely missing from the German tourists' point of view, as Finns and Germans are equally wealthy. This would mean that paying the premium would not provide value to the German tourist, as the impact on the local community is not large enough to justify paying the premium.

Environmental sustainability generated a significant premium compared to other dimensions. A potential explanation of this can be found in the key factor that is pulling German tourists to Eastern Finland and generating value: Finnish nature. As nature is a key pull factor and an integral part of the German holiday in Eastern Finland, it makes sense that they are also willing to pay more for products that put the effort into conserving local nature. If socio-cultural and economic problems can feel a little distant and irrelevant, apparently mitigating environmental issues seem to be an effective way of justifying a premium for a cottage product. One must also keep in mind that climate change and environmental issues related to it are hot topics in Europe right now, which might also influence people's willingness to pay for environmentally friendly options.

6.2 Theoretical conclusions

An important theoretical contribution of this study is that when it comes to tourists' willingness to pay for sustainable products, there are major differences between the three dimensions of sustainability. It seems that tourists, depending on the context, may favor some sustainability causes or dimensions over others.

Earlier research has examined and found similar differences in e.g., general business (Tully & Winer, 2014) and retail contexts (Ota et al., 2019). The findings from these studies indicate that socio-cultural sustainability would generate higher willingness to pay compared to other dimensions. The differing findings of this study indicate that tourists seem to have different preferences regarding sustainability than consumers in other contexts, such as retail.

This study provides first-hand information on how tourists value each dimension when compared to each other. Both Ota et al. (2014) and Nelson et al. (2021) called for additional research on the issue: Ota et al. (2019) for more research in contexts other than retail and Nelson et al. (2021) specifically in the tourism context. Nelson et al. (2021) interest were particularly in the sustainability causes tourists are willing to support and pay for. This study answers both calls and provides an avenue for more detailed research on the topic in the future.

In addition to the above-mentioned theoretical contributions, the approach used in this study also provides something new to the field of sustainable tourism WTP research. To the author's knowledge, this is the first tourism study where the three sustainability dimensions' effect on tourists' willingness to pay has been explicitly compared against each other. A three-dimensional approach has been requested by both Didier & Lucie (2008) and Ota et al., (2019), who were comparing socio-cultural and environmental dimensions against each other. This study addresses their call by also testing economic sustainability's effect on WTP along with the other two dimensions.

This study also is the first of its kind to research the relationship between sustainability and WTP in the cottage accommodation business, as earlier literature is heavily focused on hotels or other

forms of accommodation. Cottages are a very important form of accommodation for the Finnish rural tourism industry, so it is important to also direct scientific attention to cottages as well. Hence, this study offers a novel approach to examining WTP and sustainable tourism.

When comparing the findings of this research to other tourism studies, we could see that the green premium in this study was generally higher than in other studies examining WTP for sustainable accommodation (see e.g., Kang et al., 2012; Nelson et al., 2021). It is hard to conclude why cottages generate higher green premiums, but the results of this study indicate that there might not only be differences between different sustainability dimensions' ability to generate higher WTP, but also differences between different forms of accommodation when it comes to WTP generation.

This study also concludes that socio-demographic factors cannot be seen as a significant predictor of tourists' willingness to pay. The conclusion is consistent with those made in earlier research (see e.g., Kang & Nicholls, 2021).

6.3 Managerial conclusions

The results of this study show that tourism businesses should acknowledge that sustainability is a multi-dimensional phenomenon and that tourists value the dimensions differently. In this case, we could see a clear indication that environmental sustainability was the most appreciated dimension by German tourists and that the businesses could utilize this knowledge in their marketing communications. Earlier studies have shown the German tourists' relative reluctance to pay a premium for sustainable tourism products (Mantel & Papathanassis, 2016), but with the knowledge gained from this study, it can be concluded that focusing on environmental sustainability communication might be the most effective way to approach German tourists.

The results show that cottage accommodation businesses that are targeting German tourists should consider investing in environmental sustainability. Energy efficiency, water conservation, and recycling opportunities are among the factors that are valued by German tourists, which

then translates into higher willingness to pay for cottage accommodation. In addition to the investments, the businesses should also develop a planned and organized approach to communicate these investments effectively to the desired target audience. It must also be noted that investments into e.g., energy efficiency and water conservation tend to lower the businesses' operating costs, so the benefits are not limited only to increased revenue generated by higher WTP.

Briefly put, if the cottage accommodation industry wants to create more value for German tourists and be able to charge higher room rates, they should take two important steps: invest in environmental sustainability and actively communicate these actions to their customers. Needless to say, to succeed, both steps must be taken, as benefits from sustainability investments cannot be realized without proper communication, and sustainability communication is not credible if it is not based on actual deeds. Modern consumers are very aware of environmental issues and can detect greenwashing if a business tries to base its sustainability communications on false premises.

To conclude: investments in environmental sustainability carry a significant business potential for cottage accommodation businesses targeting German tourists. The businesses that have already made these investments should openly communicate their actions to their customers. Those businesses who have not yet decided to make the investments should consider investing, as the potential financial and marketing benefits are significant.

6.4 Critical evaluation of the research and the results

6.4.1 Reliability of the study

Reliability refers to the consistency of the results provided by the study. A reliable research would regenerate similar results if it was repeated under same conditions. Reliability can be assessed through three different methods: parallel forms reliability, test-retest reliability, and internal consistency (Metsämuuronen, 2005). Cronbach's alpha, which is a popular method for

testing internal constistency, was used to check the internal consistency of the sustainability statements, i.e., the manipulation check questions. The value obtained was .750, which is higher than the level of acceptability, .600 (Metsämuuronen, 2005) Thus, the measurement items are internally consistent.

The limited sample size of 241 valid responses could be seen as a factor affecting the reliability of the results. The goal was set to 200 valid responses, which was surpassed, but a larger sample size would probably help to decrease the standard error of the mean regarding the WTP questions (3.09 for environmental sustainability) and thus improve the reliability of the study (Mitchell & Carson, 1989).

6.4.2 Validity of the study

Validity refers to the accuracy of the selected methods. When the study is of high validity, the results are measuring the exact construct the researcher was intending to measure. External validity refers to how generalizable the results are. Internal validity can be divided into three main categories: content validity, construct validity and criterion validity (Metsämuuronen, 2005).

When designing and preparing the questionnaire for the study, multiple measures were taken to ensure the internal validity of the study. The majority of the socio-demographic questions were applied from the Federal Statistical Office of Germany (Destatis) to make sure that the results of the study would be comparable with the data from Destatis. A native German speaker translated the questionnaire from English to German and gave insights on the specific wording on questions regarding e.g., education and occupation. Before data collection, the questionnaire was pretested to ensure content validity. The questionnaire featured manipulation checks to ensure construct validity and to filter out respondents who were just clicking through the form to participate in the raffle. Manual screening of the data was also conducted to delete respondents who had completed the survey too fast.

The main limitation of the study's external validity is that the contingent valuation method, despite its popularity, it suffers from hypothetical bias (Mitchell & Carson, 1989). Contingent

valuation studies generally lack the ability to create a realistic market scenario that would best represent reality. It is reasonable to assume that the attitude-behavior gap (Juvan & Dolnicar, 2014) affects the study results by inflating the green premium a bit higher than it would be in reality. Thus, the results of this study should not be viewed as definite proof that environmental sustainability automatically creates a 15% higher willingness to pay, but rather as an indication that a positive effect on WTP exists.

The questionnaire was distributed solely through social media channels, which probably affected the sample composition. We could see that women were over-represented in the sample's gender distribution, which might derive from the fact that the majority of the social media channels' followers are women. Perhaps using additional channels other than social media would have helped to get a more equal gender distribution.

The positive side of using social media channels for sampling was that the sample was composed of respondents who were already familiar with Finland as a tourism destination and cottages as a form of accommodation. After all, they are the people who are the most potential visitors and whose opinions matter the most. However, the limited sample population, combined with a rather limited sample size, makes it difficult to generalize these results.

6.5 Suggestions for future research

Discovering how tourists could be attracted to consume more sustainable tourism products and pay a sufficient price for such products is critical for the future of not only our planet and societies but also the future of the global tourism industry. These problems deserve and need to be studied more closely in the future.

This research gave indications that tourists would be motivated to pay more for environmentally sustainable tourism products. However, as mentioned, the greatest limitation of the study is its inability to create a realistic market scenario. Hence, future research could focus on examining the same issue with either a different methodology or by examining the consumers' viewpoints

in a scenario that would represent reality better. Methods like conjoint analysis and discrete choice experiments can be applied to WTP research and they would probably create more realistic results than the contingent valuation method. Also, the importance of individual product attributes, causes, or initiatives in the WTP formation process could be examined by using the conjoint analysis method.

Different sampling methods could also help in obtaining results that would be more closely connected to consumers' actual purchasing behavior. A similar questionnaire could be sent to e.g., customers who have just booked a cottage holiday or returned home from such a holiday. With this group of people, the actual decision-making and purchasing process is still quite fresh in their memory. This would allow them to base their answers on recent experience and produce more reliable results. In addition, different forms of accommodation and/or target markets' views could be studied in the future.

Another important question, which this research did not answer, is why environmental sustainability was valued higher than other dimensions of sustainability. This question could be answered by examining e.g., the customer value provided by each sustainability dimension or the respondents' personal values, beliefs, and attitudes.

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Appendices

Appendix 1: Research items and their sources

Question	Research item	Purpose	Applied from
Q1	Have you travelled to Finland before?	Market knowledge	Kosenko & Rahtz, 1988
Q2	How many times travelled during the last five years?	Market knowledge, frequency of visits	Kosenko & Rahtz, 1988; Durán-Román et al., 2021
Q3	Travel companion(s)	Travel companions	Durán-Román et al., 2021
Q4	Stayed in a cottage before	Market knowledge	Kosenko & Rahtz, 1988
Q5, Q9-Q12	Manipulation check question	Manipulation check	Oppenheimer, Meyvis, & Davidenko, 2009; Wu & Yang, 2018
Q6-Q8	WTP questions	Willingness to pay	Question format: Mitchell & Carson, 1989. Cottage attributes: Pasanen, 2018; Wehrli et al., 2011
Q13	Year of birth	Socio-demographic variable	Durán-Román et al., 2021
Q14	Gender	Socio-demographic variable	Durán-Román et al., 2021

Q15	Citizenship	Inclusion variable	Author
Q16	Country of permanent residence	Inclusion variable	Author
Q17	Relationship status	Socio-demographic variable	Kang et al., 2012; Statistisches Bundesamt (Destatis), 2021
Q18	Number of children under 18 in household	Socio-demographic variable	Kang et al., 2012; Statistisches Bundesamt (Destatis), 2021
Q19	Monthly net income	Socio-demographic variable	López-Sánchez & Pulido-Fernández, 2017; Statistisches Bundesamt (Destatis), 2021
Q20	Professional status	Socio-demographic variable	Durán-Román et al., 2021; Statistisches Bundesamt (Destatis), 2021
Q21	Employment status	Socio-demographic variable	López-Sánchez & Pulido-Fernández, 2017; Statistisches Bundesamt (Destatis), 2021
Q22	Education level	Socio-demographic variable	López-Sánchez & Pulido-Fernández, 2017; Statistisches Bundesamt (Destatis), 2021

Appendix 2: Original questionnaire in English

Master's Thesis

Mandatory questions are marked with a star (*)

Dear respondent!

You are probably here because you are interested in traveling to Finland. That's great! Now we would like to hear your opinion regarding Finnish cottage accommodation and how different attributes are preferred. By answering this questionnaire, you can participate in a raffle to win a 500€ gift card to an Eastern Finnish holiday cottage! Whether you are an experienced traveler to Finland or still planning your first trip, it doesn't matter: all opinions are equally important. The data from this study is used to develop Finnish cottage accommodation to serve the German tourists' needs better.The questionnaire is divided into three parts and answering the questionnaire only takes a few minutes of your time.

The questionnaire is a part of a master's thesis research conducted in University of Eastern Finland's Tourism Marketing and Management Master's Degree Programme. For more information about the research, please contact Mr. Markus Rantsi (mrantsi@student.uef.fi). The instructors of the thesis are Mrs. Katja Pasanen and Professor Juho Pesonen.

The questionnaire is fully anonymous and no personal data is collected from the respondents. At the end of the questionnaire, you have the option to participate in the raffle by providing your contact information. All personal information will be processed according to the GDPR and the Information Security Code and Guidelines of the University of Eastern Finland. All personal information will be deleted after the winner is determined. For further information about processing of personal data, read here (in English): https://www.uef.fi/en/processing-of-personal-data

Thank you for your valuable answers!

Best Regards

Markus Rantsi
MSc Student
University of Eastern Finland
Joensuu, Finland

Contact: mrantsi@student.uef.fi

UNIVERSITY OF
EASTERN FINLAND

Part 1

Please answer the following questions

1. Have you travelled to Finland before? *

- ◯ Yes
- ◯ No

2. How many times have you travelled to Finland during the last five years? *

- ◯ 1
- ◯ 2
- ◯ 3 or more

3. Who did you travel with? You can choose one or more options *

- ☐ Alone
- ☐ Partner
- ☐ Friends
- ☐ Family
- ☐ Organized group
- ☐ Other

4. Have you stayed in a cottage accommodation before? *

- ◯ Yes
- ◯ No
- ◯ I don't know / I'm not sure

Part 2

Next, you will be asked questions regarding your willingness to pay for Finnish cottage accommodation. The questions are based on a real-life cottage. First, you will be presented with basic information

regarding this cottage. **Please read the information carefully and answer the following question**

This is a lakeside cottage located in Eastern Finland. It is a log cabin and it was built in 2009. The cottage has the following attributes:

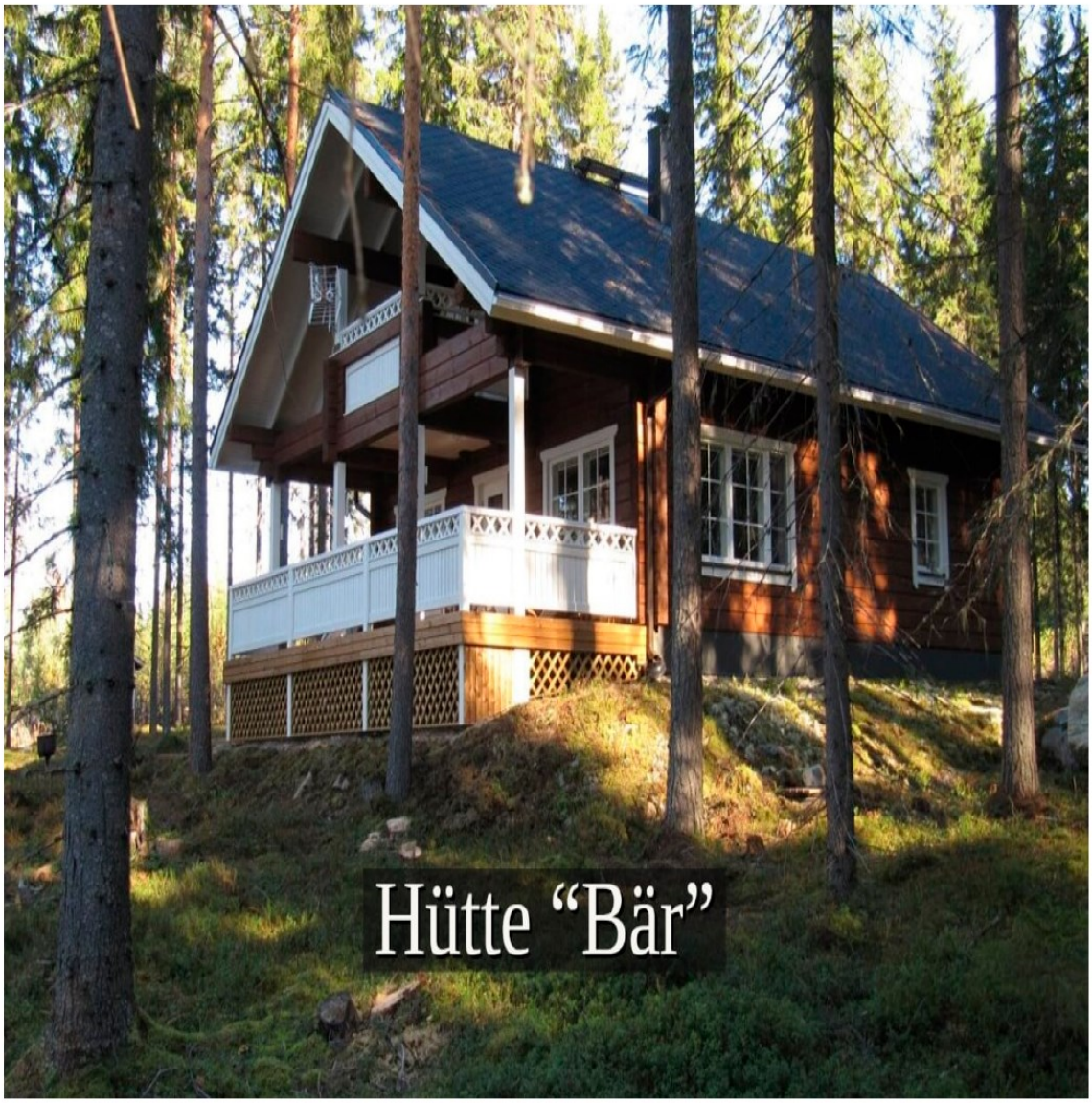
- Own property in calm and quiet environment
- 9 beds, modern kitchen, TV & high-speed internet connection
- Energy efficiency of the heating system and household appliances: normal
- Origin of electricity: 54% renewable
- Biowaste is recycled in a compost, the rest is residual waste
- Price per night: 150€

5. How much do you agree with the following statements? Please consider the cottage attributes before answering *

- Own property in calm and quiet environment
- 9 beds, modern kitchen, TV & high-speed internet connection
- Energy efficiency of the heating system and household appliances: normal
- Origin of electricity: 54% renewable
- Biowaste is recycled in a compost, the rest is residual waste
- Price per night: 150€

	Strongly disagree	Disagree	Somewhat disagree	Neither agree or disagree	Somewhat agree	Agree	Strongly agree
Staying in this cottage is environmentally friendly *	◯	◯	◯	◯	◯	◯	◯
Staying in this cottage helps to preserve and develop local culture *	◯	◯	◯	◯	◯	◯	◯
Staying in this cottage supports local economy and employment *	◯	◯	◯	◯	◯	◯	◯

Next, you will be presented with three variations of this cottage: Bär, Luchs and Elch. Each version has slightly different attributes, please pay close attention to them. The options will be presented to you in a random order. After viewing each option, you will be asked what is the highest sum of money you would be willing to pay per night to stay in the presented cottage. You can answer with a slider that has values varying between 0€ and 300€ per night. **Please consider the attributes of the cottage before answering and answer as truthfully as possible.**



This cottage has the following attributes:

• Own property in calm and quiet environment
• 9 beds, modern kitchen, TV & high-speed internet connection
• Energy efficiency of heating and household appliances: very good
• Origin of electricity: 100% renewable
• Possibility to recycle biowaste, plastic, cardboard, glass and metal
• Water conservation technologies in place
• Bicycles and a rowing boat are included in the price, so you can explore the surrounding nature in a climate friendly way
• Cottage owner donates 2% of annual earnings to support local carbon compensation projects

6. What is the highest sum of money you would be willing to pay per night to stay in cottage "Bär"? Please consider the attributes of the cottage before answering and answer as truthfully as possible *

0 €

0 € 300 €

This cottage has the following attributes:

- Own property in calm and quiet environment
- 9 beds, modern kitchen, TV & high-speed internet connection
- Energy efficiency of heating and household appliances: normal
- Origin of electricity: 54% renewable
- Recycling opportunities: biowaste is recycled in a compost, rest is residual waste
- Interior design and furnishing done in Finnish style and with materials made in Finland
- Live like a local: the entrepreneur offers you information about local cultural attractions and local food

products
• Possibility to enjoy traditional Finnish lakeside sauna
• Cottage owner donates 2% of annual earnings to support a local food aid programme

7. What is the highest sum of money you would be willing to pay per night to stay in cottage "Luchs"? Please consider the attributes of the cottage before answering and answer as truthfully as possible *

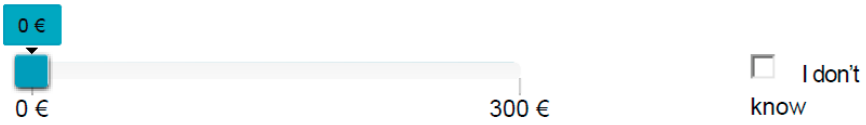
Cottage "Elch" has the following attributes:

• Own property in calm and quiet environment
• 9 beds, modern kitchen, TV & high-speed internet connection
• Energy efficiency of heating and household appliances: normal
• Origin of electricity: 54% renewable
• Recycling opportunities: biowaste is recycled in a compost, rest is residual waste
• The cottage is built from locally sourced building materials and by local builders
• The cottage is owned by a local entrepreneur
• Firewood, maintenance services etc. are sourced from local entrepreneurs to support local economy
• Cottage owner donates 2% of annual earnings to projects that support the employment of local youth

8. What is the highest sum of money you would be willing to pay per night to stay in cottage "Elch"? Please consider the attributes of the cottage before answering and answer as truthfully as possible *

9. Please read the instructions and answer accordingly *

Most modern theories of decision making recognize the fact that decision making does not take place in a vacuun. Individual preferences and knowledge, along with situational variables can greatly impact the decision making process. This study is interested to know more about the decisions made by you, the tourist. In order for this research to succeed, it is very important that you read the instructions carefully and answer truthfully. In order to demonstrate that you have read the instructions, ignore the slider with options from 0€ to 300€ and pick the "I don't know" option instead and continue to the next questions after answering. Thank you very much.



Next, you will be asked to state how you feel about certain statements regarding the cottages' sustainability. First, the attributes of each cottage will be presented to you as a reminder. After that, you will be presented with three statements about the cottages' sustainability. Please state how much you agree with each statement. Again, base your answers on each cottage's attributes and **answer as truthfully as possible.**

10. To what extent do you agree with the following statements about cottage "Bär"? Please consider the cottage attributes before answering *

Cottage "Bär" has the following attributes:

• Own property in calm and quiet environment
• 9 beds, modern kitchen, TV & high-speed internet connection
• Energy efficiency of heating and household appliances: very good
• Origin of electricity: 100% renewable

• Possibility to recycle biowaste, plastic, cardboard, glass and metal
• Water conservation technologies in place
• Bicycles and a rowing boat are included in the price, so you can explore the surrounding nature in a climate friendly way
• Cottage owner donates 2% of annual earnings to support local carbon compensation projects

	Strongly disagree	Disagree	Somewhat disagree	Neither agree or disagree	Somewhat agree	Agree	Strongly agree
Staying in this cottage is environmentally friendly *	◯	◯	◯	◯	◯	◯	◯
Staying in this cottage helps to preserve and develop local culture *	◯	◯	◯	◯	◯	◯	◯
Staying in this cottage supports local economy and employment. *	◯	◯	◯	◯	◯	◯	◯

11. To what extent do you agree with the following statements about cottage "Luchs"? Please consider the cottage attributes before answering *

Cottage "Luchs" has the following attributes:

• Own property in calm and quiet environment
• 9 beds, modern kitchen, TV & high-speed internet connection
• Energy efficiency of heating and household appliances: normal
• Origin of electricity: 54% renewable
• Recycling opportunities: biowaste is recycled in a compost, rest is residual waste
• Interior design and furnishing done in Finnish style and with materials made in Finland
• Live like a local: the entrepreneur offers you information about local cultural attractions and local food products
• Possibility to enjoy traditional Finnish lakeside sauna
• Cottage owner donates 2% of annual earnings to support a local food aid programme

	Strongly disagree	Disagree	Somewhat disagree	Neither agree or disagree	Somewhat agree	Agree	Strongly agree
Staying in this cottage is environmentally friendly *	◯	◯	◯	◯	◯	◯	◯
Staying in this cottage helps to preserve and develop local culture *	◯	◯	◯	◯	◯	◯	◯
Staying in this cottage supports local economy and employment. *	◯	◯	◯	◯	◯	◯	◯

12. To what extent do you agree with the following statements about cottage "Elch"? Please consider the cottage attributes before answering *

Cottage "Elch" has the following attributes:

- Own property in calm and quiet environment
- 9 beds, modern kitchen, TV & high-speed internet connection
- Energy efficiency of heating and household appliances: normal
- Origin of electricity: 54% renewable
- Recycling opportunities: biowaste is recycled in a compost, rest is residual waste
- The cottage is built from locally sourced building materials and by local builders
- The cottage is owned by a local entrepreneur
- Firewood, maintenance services etc. are sourced from local entrepreneurs to support local economy
- Cottage owner donates 2% of annual earnings to projects that support the employment of local youth

	Strongly disagree	Disagree	Somewhat disagree	Neither agree or disagree	Somewhat agree	Agree	Strongly agree
Staying in this cottage is environmentally friendly *	◯	◯	◯	◯	◯	◯	◯
Staying in this cottage helps to preserve and develop local culture *	◯	◯	◯	◯	◯	◯	◯
Staying in this cottage supports local economy and employment. *	◯	◯	◯	◯	◯	◯	◯

Part 3

Next, we want to know a little bit about your background. Please answer the following questions

13. What is your year of birth? *

14. Gender *

- ◯ Male
- ◯ Female
- ◯ Other/I don't want to answer

15. Are you a citizen of the Federal Republic of Germany? *

- ◯ Yes
- ◯ No
- ◯ I don't want to answer

16. What is your country of permanent residence? *

- ◯ Germany
- ◯ Other
- ◯ I don't want to answer

17. What is your relationship status? *

- ◯ Single
- ◯ Married/in a relationship, living together
- ◯ Married/in a relationship, living separately
- ◯ Divorced
- ◯ Widowed
- ◯ Other/I don't want to answer

18. What is the number of childer under the age of 18 living in your household? *

- ◯ No children
- ◯ 1
- ◯ 2
- ◯ 3
- ◯ 4
- ◯ 5 or more

19. What is the monthly net income of your household? Please state the combined total net income from all income sources and wage earners *

- ◯ Less than 500 €
- ◯ 500 € - 1000 €
- ◯ 1000 € - 1 250 €
- ◯ 1 250 € - 1 500 €
- ◯ 1 500 € - 2 000 €
- ◯ 2 000 € - 2 500 €
- ◯ 2 500 € - 3 000 €
- ◯ 3 000 € - 3 500 €
- ◯ 3 500 € - 4 000 €
- ◯ 4 000 € - 5 000 €
- ◯ 5 000 € or more
- ◯ I don't want to answer

20. What is your professional status? Please choose the option(s) that apply to you *

- [ ] Entrepreneur/self-employed
- [ ] German civil servant (Beamter/Beamtin)
- [ ] Office worker
- [ ] Worker
- [ ] Student or apprentice
- [ ] Unpaid family worker (e.g. stay-at-home parent)
- [ ] Unemployed
- [ ] Retired
- [ ] Other
- [ ] I don't want to answer

21. What is your employment status? *

- ◯ Full-time employment
- ◯ Part-time employment
- ◯ Unemployed
- ◯ Other
- ◯ I don’t want to answer

22. What is the highest level of education you have completed? *

- ◯ High school degree or vocational degree
- ◯ Apprenticeship degree (Ausbildungsabschluss)
- ◯ Bachelor's degree
- ◯ Master's degree
- ◯ Diplom
- ◯ Doctor
- ◯ Other
- ◯ I don't want to answer

23. Do you want to participate in a raffle to win a 500€ gift card to a Finnish holiday cottage? *

- ◯ Yes
- ◯ No

24. Please provide your contact details to participate in the raffle to win a 500€ gift card to Kivirannan Lomamökit holiday cottage. Read more about the cottage here (in English): https://kivirannanlomamokit.fi/in-english.html

First name	
Last name	
Email	