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Investigating how the Tourism Industry has taken the sustainable and green measures: a case study of Finland.

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Abstract
In recent decades, the world has faced increasing environmental challenges such as climate change, pollution, and unsustainable resource use. The tourism industry in Finland has recognized the importance of sustainable practices to address these issues. This research investigates the current state of sustainable tourism in Finland and examines the factors contributing to its adoption. The findings will benefit the tourism sector by highlighting sustainable and green practices and their alignment with sustainable tourism principles. The research focuses on economic impacts, including contributions to growth and employment, as well as environmental measures such as the use of renewable energy sources. The study aims to help the industry analyze its sustainability and improve its practices. The findings will be valuable for stakeholders including the tourism industry, Finnish government, and hotels, informing their efforts in ecotourism, sustainable tourism, and environmental conservation. The research uses a qualitative systematic review methodology to evaluate past studies effectively.

Keywords/tags (subjects)

Sustainable Tourism,Finnish Tourism Industry, Green measures, Sustainable Measures, Social Measures, Economic Measures, Environmentol Measures.

Miscellaneous (Confidential information)

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1 Introduction

This thesis aims to investigate how the Finnish industry have implemented sustainable and green measures. This study is important because sustainability has emerged a serious concern to help tackle climate change issues and protect biodiversity. The tourism industry is not an exemption from increased concern for sustainability as the harmful tourism effects are a considerable concern and need to be addressed for continuity of the sector. Thus, this study attempts to examine how sustainability issues in the tourism sector has been tackled through implementation of sustainable and green measures in Finland tourism industry.

1.1 Background to the Thesis

The past decades have witnessed increased environmental challenges, and climate change, global warming, pollution, and greenhouse gas effects (GHGs) have become universal. The leading causes include excessive water and energy consumption, human activities that generate carbon emissions, and abusive natural resource utilization (Ibnou-Laaroussi et al., 2020). Henceforth, environmental issues have become inescapable, prompting contemporary societal intervention to promote sustainable development to tackle climate change issues and protect biodiversity. Thus, it has become essential to work on the three sustainable development dimensions (environment, economy, and society) to attain sustainability and improve green growth among various industries (Ibnou-Laaroussi et al., 2020). The tourism industry is not exempt from increased concern for sustainability.

The world's economy is significantly impacted by the size and growth of the tourism industry. This industry has significantly expanded over the past few decades, and it now accounts for around one-twelfth of all occupations and contributes over 9.2 trillion US dollars (1.4 percent) to the world economy (Söderholm, 2020). UNWTO (2019) adds that tourism has witnessed increased diversification and continued growth over the last decades, turning out to be one of the fastest-growing economic sectors globally. Accordingly, tourism business volume presently equates or even surpasses that of food products, oil exports, and automobiles, offering millions of points of entry into the workforce, especially for women and youths, and a diversity of investment opportunities for young entrepreneurial talents. Moreover, tourism has emerged as one of the major industries in international trade while also serving as a major source of income for many developing countries. Tourism is their only service industry that has seen trade surpluses relative to the rest of the world (UNWTO, 2019).

However, tourism sector is also a source of pollution and environmental damage, a socio-cultural structure the heavy user of scarce resources and potential cause of negative externs cause in the environment (Paunovi & Jovanović, 2017). As the sector is large, it cannot ignore the global change that is occurring because firms must adapt to the environmental problems that harm the environment and lessen the negative effects that tourism has on it. Since the tourism industry is a significant contributor to environmental degradation and harm, it is important to address the negative effects of tourism (Paunovi & Jovanović, 2017). The harm caused by tourism is detrimental to the tourism sector. The industry is a heavy consumer of scarce resources, causing adverse impacts on society (UNWTO, 2019).

The industry depends heavily on natural, cultural, historical, and environmental resources, and the protection of these resources is necessary for tourism to continue (Paunovi & Jovanovi, 2017). Others, such as the cultural and natural heritage and the local community in the tourism sector, are significant to tourism's continuation, and tourism businesses should consider the interests of other actors as well as sectors. This continuation relies on the concept of sustainability, which has developed significantly and whose awareness has increased over the last 30 years (Söderholm, 2020). As a result, today, most governments and institutions acknowledge that without sustainability, no development can be done that produces benefits for all stakeholders, solves urgent and severe issues like extreme poverty, and preserves the valuable man-made and natural resources that form the basis of human prosperity. The tourism sector could not remain indifferent to today's sustainability challenge (United Nations Environment Programme, 2015).

Encompassing sustainability is the concept of a green economy, which expresses the need for the right economy to attain sustainable development. Within the tourism sector, these concepts have resulted in sustainable tourism that comprises climate change mitigation, sustainable practices, and ecotourism (Ibnou-Laaroussi et al., 2020). Moreover, the tourism sector is among the ten economic sectors that the UNEP Green Economy Report has identified, whose greening could create employment, increase prosperity, and minimize poverty. Furthermore, tourists are increasingly demanding tourism greening. This calls for tourism development to have a sustainable approach to enhance growth promotion in the long run while maintaining a balanced resource use, which could be supported at the national, local, international, and regional levels (UNWTO, 2019).

Undeniably, sustainable tourism and the influence and contribution of the tourism sector to the green economy have recently gained attention from practitioners, policymakers and academics (Toubes & Arajo-Vila, 2022). Therefore, this paper focuses on investigating how the tourism industry in Finland has taken sustainable and green measures through a case study.

1.2 Research Problem

One of the major global industries, the tourism and travel sector, has made significant economic contributions to countries all over the world. Yet, the negative effects of tourism have grown to be a major problem, necessitating an urgent response (Ibnou-Laaroussi et al., 2020). In light of this, the idea of sustainability has emerged in an effort to reduce the negative effects of tourism operations. It is now essentially universally recognized as a politically correct and desirable strategy for growing the tourism industry (Buffa et al., 2018).

As a result, both the private and public sectors at all levels of government and in organizations have included sustainable tourism into their policy-making processes, like the World Travel and Tourism Council (WTTC), the United Nations World Tourism Organization (UNWTO), and the United Nations Environment Programme (UNEP) (Söderholm, 2020). Sustainable, green, and eco-friendly are now predominant terms in tourism regulations, policy papers, and promotional materials. Consequently, tourism sustainability has witnessed a substantial expansion over the recent decades for different reasons, and much research has been done in this area to uncover the sustainable and green measures adopted by the tourism sector and the impacts these measures have on the industry (Ibnou-Laaroussi et al., 2020).

Among the numerous studies conducted, Ibnou-Laaroussi et al. (2020) investigated the sustainability of green tourism among foreign visitors and its impact on the creation of a green environment: evidence from North Cyprus, a case study on the implementation of sustainable tourism in the German Alps by Paunovi and Jovanovi in 2017, a review of the literature on tourism in the green economy by Toubes and Arajo-Vila in 2022, and a study by Zolfani et al. (2015). An extensive overview of the literature on frameworks and applications for sustainable tourism

However, out of these studies, none has focused on investigating green and sustainable measures in the tourism industry in Finland. Moreover, none of the studies seem to focus on systematic review as a methodology in their research. Therefore, this study focuses on investigating how the tourism industry has taken sustainable and green measures, with a focus on Finland's tourism industry.

1.3 Objectives of the Research

The main aim of this study is to investigate how the Finnish tourism industry has implemented sustainable and green measures. The following research question will support the study:

1. To find out the types of sustainable and green measures that have been implemented in the Finnish tourism industry

2. To find out the benefits associated with these sustainable and green measures in Finland's tourism industry

This research will be beneficial to the tourism sector in Finland, as the findings will shed light on sustainable and green practices the industry has adopted and whether they align with

sustainable tourism principles or not. The results will help the industry analyze their state with regard to sustainable tourism and its benefits, as well as what can be done (in terms of implementing green and sustainable measures) to enhance the state and reap more benefits from sustainable tourism.

1.4 Research question

This study will answer the following research questions:

1. What are the types of sustainable and green measures that have been implemented in the Finnish tourism industry?

2. What are the benefits associated with these sustainable and green measures in Finland's tourism industry?

1.5 Topic significance to the development of working life

This study is relevant as sustainability is increasingly becoming an important concept. Sustainable tourism and the influence and contribution of the tourism sector to the green economy have recently gained attention from practitioners, policymakers, and academics. Thus, the findings of this study will be significant to tourism companies and the industry as they can be effectively used to gauge the measures that have already been adopted and what needs to be done to ensure the growth of Finland's tourism sector regarding sustainable tourism.

Also, the contribution of this study is not only valid in the literature but also has managerial implications and promotes eventual results for different practitioners in the sector. For instance, the study's findings may benefit policymakers, as they can use them to amend policies

that can be tailored to help tourism companies and the entire industry implement more green and sustainable measures.

1.6 The scope of the thesis

This research will be beneficial to the tourism sector in Finland, as the findings will shed light on sustainable and green practices the industry has adopted and whether they align with sustainable tourism principles or not. The results will help the industry analyze their state with regard to sustainable tourism and its benefits, as well as what can be done (in terms of implementing green and sustainable measures) to enhance the state and reap more benefits from sustainable tourism.

1.7 Thesis structure

This thesis is divided into six key chapters. The first chapter, "Introduction, provides a background to the study, highlighting the significance of the study and scope of the thesis. The second presents the knowledge base of the thesis, which entails discussion of the different concepts and perspectives used and a review of the extant literature on sustainable and green measures implemented in the tourism industry. The third chapter points out the aims, objectives, and rationale behind the study, including its assumptions.

The fourth chapter is research methodology, which covers methods, data collection techniques, and analysis. The fifth chapter presents the findings, analyzes them, and discusses them. Finally, chapter six presents the discussion, conclusion, and recommendations.

1.8 Assumptions on the final results of the thesis

The final results of the thesis will be a report detailing the types of sustainable and green

measures that the Finnish tourism industry has taken to ensure sustainability in the sector. The

report will also include details on how these sustainable and green measures have benefited

the tourism sector in Finland.

2. The knowledge base of the thesis

The thesis will use three main concepts to examine the issues of sustainable and green

measures in Finnish tourism, including sustainability, sustainable tourism, and ecotourism.

These concepts are chosen because they align with sustainable and green measures in the

tourism sector and hence will be essential in investigating the thesis findings. Also, the thesis

will use the respective ten principles of sustainable tourism and destination development. This

will help guide the research to determine if the sustainable and green measures implemented

in Finland align with the principles.

2.1 The concept of tourism

The tourist industry, which has one of the fastest growth rates in the world, has a considerable

impact on the economies and employment markets of many countries. It is among the most

amazing economic and social phenomena (Assaf & Scuderi, 2020). Thus, the term "tourism" has

a wide range of interpretations. Lickorish and Jenkins (2017) define tourism as the movement

of people from their habitual place of abode to another location (with the intention to return)

for a minimum of twenty-four hours to a maximum of six months for the sole purpose of leisure

and pleasure"tourism" has a wide range of interpretations. Lickorish and Jenkins (2017) define tourism as the movement of people from their habitual place of abode to another location (with the intention to return) for a minimum of twenty-four hours to a maximum of six months for the sole purpose of leisure and pleasure. Tourism was defined by the WTO (1993) as the pursuit of pleasure, business, or other goals by individuals who visit and stay for up to a year straight in environments other than their normal surroundings (Leiper, 2019).

At the 1963 Rome tourism conference, the term "tourism" was first used to describe travel to a country other than one's own or one's usual place of residence and employment. Nevertheless, this definition ignored domestic travel, which has grown to be a significant source of income and employment for the hospitality sector (Leiper, 2019). According to the UNWTO, tourists are individuals who travel to and stay in a place other than their usual area for up to a year straight for leisure, business, or other reasons unrelated to doing a job there for money (Camilleri & Camilleri, 2018). It is important to define the term tourism in this thesis to help in understanding what tourism entails and how this will apply to the research regarding what should be considered tourism and what it is not in the Finnish industry.

2.1.1 Tourist types and forms

Tourism comes in a variety of shapes and forms. International tourism, which is further separated into inbound and outbound travel, is thus the first type. On the one hand, inbound tourism describes travelers who arrive in a nation from elsewhere. It is referred to as inbound tourism for the destination country when people go outside of their home or host country. In contrast, outbound tourism describes visitors who leave their home country and visit another one. Because they are leaving their home nation when they travel abroad, visitors engage in

outbound tourism. The second kind of tourism is domestic tourism, which refers to travel undertaken by nationals within their own territory (Lickorish & Jenkins 2017).

Also, there are many different types of tourism, depending on the destination, and alternate forms. According to their nature, these are further classified into numerous varieties. Among the most important forms of tourism are bicycle tours and adventure travel. Beach tourism, cultural tourism, ecotourism, religious tourism, sex tourism, sports tourism, ecotourism, virtual tourism, and wildlife tourism are all other forms of tourism (Camilleri & Camilleri, 2018).

Yet, there are various classifications for tourism. The following categories are used to categorize tourism, as per Camilleri and Camilleri (2018):

1. Recreational: Leisure or recreational travel removes a person from their daily routine. In this instance, people enjoy their free time by visiting beaches, mountains, and seas.

2. Cultural: Cultural tourism entails visiting historic sites, houses of worship, and other ancient structures to satiate cultural and intellectual curiosity.

3. Sports/Adventure: This category comprises journeys made with the purpose of hiking, skiing, or golfing.

4. Health: This category includes those who travel for medical reasons, treatment, or to go to places that may be healing, like hot springs or spa yoga.

5. Convention tourism: This form of tourism is becoming more and more important. Individuals travel both locally and worldwide to attend conferences relevant to their area of business, profession, or passion.

6. Incentive travel: Leading companies give vacations to dealers and salespeople who surpass challenging sales targets. This is a recent and emerging travel trend. They stand in for compensation in the form of money or gifts. Incentive travel is currently a $3 billion market in the US alone.

Tour operators, lodging establishments, cruise lines, and companies offering recreational activities all form part of the tourism industry. For tourism to be done sustainably, representatives of each of these industries must be contacted and included in the planning process (Lickorish & Jenkins, 2017). Defining the types and forms of tourism in this thesis is important as it will aid in understanding the research question in terms of the types of tourism in the Finnish tourism industry that have taken green and sustainable measures. Additionally, knowing the types of tourism is also important for this thesis as it will help in the search process as the types of tourism will be used as key words such as "Finnish recreational tourism sustainable and green practices", "Finnish sports tourism sustainable and green measures," or "how Finnish cultural tourism has taken green measures."

2.2 Finnish Tourism Industry

Northern European tourism destinations Finland is expanding quickly and drawing more and more tourists from abroad. Both the northernmost province of Lapland and the capital city of Helsinki are considered distinct sections of the legendary Nordic nation. The travel and tourism industries are essential to the growth of the Finnish economy, contributing 4% to GDP. By 2025, it is anticipated that tourism will generate more than 25 billion euros (Toivonen, 2022). Partanen and Sarkki (2021) note that tourism has recently grown to constitute a sizable portion of the Finnish economy. The demand for international travel rose at an average pace of roughly

8% between 2017 and 2019. In 2019, the tourist industry brought in a total of EUR 16.3 billion.

In Finland, domestic visitors spent 11 billion euros, compared to foreign visitors' 5.3 billion

euros. The total demand for travel fell by 6.6 billion euros (41%), to 9.7 billion euros in 2020.

Demand for international travel fell by 3.8 billion euros (or 71%) and for domestic travel by 2.8

billion euros (or 26%). (Partanen & Sarkki, 2021).

As evidence of the sector's growth, lodging establishments in Finland recorded over 17.5 million

 overnight stays in 2021, of which over 15 million were made by domestic visitors and more tha

n two million by tourists from foreign countries. Up to 2019, the number of foreign visitors to

Finland has increased pretty steadily, particularly in the capital region and in Finnish Lapland,

which draw travelers from all over the world (Toivonen, 2022). Germany was the country with

the most non-resident visitors, followed by the United Kingdom, Sweden, and Estonia. In total,

German visitors spent close to 259 thousand nights in Finland in 2021, compared to 257 nights

for visitors from the United Kingdom. In the Nordic comparison, Finland continued to have the

lowest percentage of overnight foreign visitor stays in 2020, compared to much higher visitor

totals in Denmark, Sweden, and Norway. Finns have been choosing domestic vacations more

and more recently, which demonstrates new patterns of local and environmentally responsible

tourism (Willberg et al., 2021).

The coronavirus (COVID-19) outbreak has severely hurt the Finnish tourism business despite the

rise in domestic leisure travel. Midway through March, Finland started to limit cross-border

traffic and shut its borders to unneeded travel, which had a significant impact on both inbound

and outbound tourism (Ivanov et al., 2021). The coronavirus pandemic outbreak in March 2020

and the ensuing restrictions had a big influence on travel. Prior to the pandemic, tourism's GDP

contribution stayed at 2.7%, but according to early 2020 figures, it fell to 1.7%, a reduction of one full percentage point (Lin & Falk, 2022).

International visitors' overnight stays in Finland decreased by 68% in 2020 compared to the same time the year before. Although domestic tourism picked up throughout the summer of 2020, its volume was insufficient to make up for the void left by foreign visitors. Between April and December 2020, almost 1.8 million international excursions planned by Finns were postponed due to COVID-19-related travel restrictions. In spite of the fact that more people started traveling in the summer of 2020, the vast majority of Finns had no plans to travel or intended to stay in Finland rather than travel abroad (Willberg et al., 2021). Nonetheless, the industry began to show signs of revival in 2021. The increase in domestic travel increased total tourism demand to 11.2 billion euros in 2021, according to forecasts. Domestic travel demand climbed from 67% in 2019 to 84% in 2020 and over 90% in 2021. In 2021, domestic travel demand will have significantly increased over pre-pandemic levels. Notwithstanding the rebound in the second half of the year, foreign demand fell off in 2021. (Lin & Falk, 2022).

Despite the advantages mentioned, there are significant vulnerabilities in the Finnish tourism business, particularly with regard to winter travel. Tervo-Kankare et al. (2020) claim that greater snow condition unpredictability has already caused issues for winter travel and recreation, notably in southern Finland. Cross-country skiing facilities have been built underground as a result of this. Even in Lapland, significant Christmas tourism has been harmed by the snow's tardy arrival. But if snow conditions in central Europe fall as anticipated, the northern Finnish ski resorts might gain worldwide popularity in the future (Tervo-Kankare et al., 2020).

The largest ski resorts in Finland are found in the regions of Lapland and Oulu, which are popular winter travel destinations. One of the world's most massive artificial snow equipment installations is found at Finnish ski resorts, where it covers an estimated 80% of the slope area (Tervo-Kankare et al., 2020). The proprietors of tourism-related businesses claim that climate change in Finland is not anticipated to shorten the snow season below a certain length. Given this, it's probable that modifications to weather extremes' frequency and intensity will have a greater effect on the future of winter tourism in Finland and other regions than adjustments to the length of the season (Partanen & Sarkki, 2021).

2.3 Sustainable and Sustainable

Sustainable, on the one hand, denotes the capacity to continue or keep at the same level for a while. Contrarily, sustainability entails balancing economic development, environmental protection, and social well-being to ensure that we can meet our needs without jeopardizing the ability of generations in the future to do the same (Portney, 2015). This indicates that in addition to natural resources, people also need social and economic resources. Sustainability has many facets, environmentalism being only one. Most conceptions of sustainability also take social justice and economic development into account (Giovannoni & Fabietti, 2013).

There is a growing demand for sustainability in the tourism sector. Tourists expect sustainability in services, and many policies and laws require it (Buffa, Franch, & Rizio, 2018). Thus, governments and customers expect more sustainability from businesses. Moreover, having sustainable values is valuable to businesses since it becomes a selling point and is expected by customers (tourists) (Paunovi & Jovanovi, 2017). Globally, many strategies have been adopted for sustainable actions in the tourism sector in recent years (Söderholm, 2020).

According to Hashemkhani Zolfani et al. (2015), sustainability is a difficult topic with several complexities in its definition. Yet, it is supported by three major pillars or factors that are interconnected: environmental, economic, and socio-cultural. In order to benefit all three pillars, sustainable development should aim for a balance between the various dimensions (Hashemkhani Zolfani et al., 2015). Zolfani et al. (2015) add that sustainable tourism development includes environmental, economic, and social tourism development with the goal of continuously improving visitor experiences. Sustainability encompasses all components that make up a full tourism experience.

Sustainability in tourism hypothesizes the environmental aspects of tourism through environmental protection from many issues of the environment, such as reducing soil, air, and water pollution, and also minimizing the waste that travelers and practitioners generate. Meanwhile, sustainability in tourism concentrates on the maintenance of the environmentally friendly features of a landscape, including wild plants, animals, and habitats (Ibnou-Laaroussi et al., 2020). Mihalic (2016) notes that the economic pillar of sustainability contributes to local economic prosperity by creating competitive advantages and increasing revenues through the promotion of competitive and viable destinations globally and locally.

As a result, there are numerous ways to achieve sustainability because there are many ways to define sustainability. However, the most frequent efforts applied are waste management, water conservation, and raising the standard of living in the neighborhood, with a strong focus on social and environmental sustainability (Söderholm, 2020). Understanding the term "sustainable" is important in this thesis as it aids in putting the research question into context in

terms of how the Finnish tourism industry has implemented or achieved sustainability regarding environmental, economic, and socio-cultural sustainability measures.

2.4 Sustainable tourism

Sustainable tourism implies conserving social, environmental, and economic resources to enable the enjoyment of the tourism experience as it is today by future generations, including the visitors, environment, host communities, and industry (Agyeiwaah et al., 2017). This concept encompasses a responsible way of doing tourism, which, at times, like ecotourism, also seeks resource conservation. The difference only comes since ecotourism depends on nature all the time, while sustainable tourism is a broader concept that can involve any tourism segment (Söderholm, 2020).

While safeguarding and enhancing future opportunities, sustainable tourism development satisfies the requirements of host communities and current tourists. This idea is intended to manage all resources in a way that satisfies social, economic, and aesthetic requirements while preserving crucial ecological processes, cultural integrity, life-supporting systems, and biological diversity (Zolfani et al., 2015). Sustainable tourism, according to Liu et al. (2013), is tourism that supports or is consistent with sustainable development. These authors assert that sustainable tourism needs both the sustainable growth of the contribution of tourism to society and the economy and the sustainable utilization of the environment and resources that can be attained through proper management and a deeper understanding of tourism demand. Accordingly, tourism development refers to a dynamic process that matches the demands and preferences of potential or actual tourists to tourism resources (Zolfani et al., 2015).

Sustainable tourism can be supported by three different management actions, which ideally seek to minimize the negative tourism impacts without minimizing the tourist experience (Koivusalo, 2011). Some of the management actions supporting sustainable tourism include influencing visitors' (tourists) behavior through interpretation, education, controlling the visitor, and a code of conduct; redistributing visitor use by matching the demand with the carrying capacity of specific tourist sites; and rationing utilization, which means that various activities can be charged for to avoid premises over-use (Agyeiwaah et al., 2017).

The proponents of sustainable or "green" tourism favor reducing the negative impacts of tourism on the local environment as well as promoting and enhancing the cultural advantages of the region for its local population. Additionally, green or sustainable tourism aims to respond to the pressing environmental problem posed by global climate change, not only to reduce climate change impact but also to minimize the impacts of many environmental issues such as greenhouse gas emissions, pollution, and CO_2 emissions that are pivotal for this discussion context to recognize that green tourism accordingly intends to minimize the unfavorable effects on the local environment and forecasting its applicability to international scale (Ibnou-Laaroussi et al., 2020).

Since the tourism sector has the potential to contribute to sustainable development, particularly through the creation of jobs and the employment of marginalized groups and women, sustainable tourism aims to strike a balance between environmental protection, the preservation of cultural integrity, the establishment of social justice, and the promotion of economic benefits while also meeting the needs of the host population in terms of improved standards of living in both the long- and short-term in both emergency situations (Liu et al.,

2013). According to Zolfani et al. (2015), sustainable development is generally used in community tourism to improve the quality of life of residents by preserving the natural environment, maximizing local economic advantages, creating a positive local environment, and offering visitors a high-quality experience.

Majorly, the promoted green tourism sector highlights programs of sustainability and encourages motivational incentives that contribute to exhibiting the green image of the destination, which has an emotional effect on the pro-environmental behavior of tourists (Ibnou-Laaroussi et al., 2020). Hence, green tourism identifies with an individual's pragmatic tourism outlook with a large commitment to a destination that is nature-based and a strategic affinity to contribute to greening the environment and enhancing the lives of people when most hospitality and tourism sectors identify their management and operations as consequently aligning to environmentally friendly measures (Line et al., 2018).

In order to promote clean, green tourism, which indicates that businesses should aim to limit the negative effects of their activities on the environment, it is necessary to encourage sustainable tourism in the sector. The actions of a destination's constituent enterprises must therefore support and be consistent with this purpose if it is to experience sustainable tourist development (Zolfani et al., 2015). It is important to understand sustainable tourism, as this will aid in analyzing the results to answer the research question on how sustainable Finnish tourism is in terms of the sustainable and green measures implemented in the sector.

2.5 Ecotourism

One of the sectors of the global tourism business that is expanding is ecotourism. Ecotourism is defined as "responsible travel to natural regions that conserves the environment and sustains the well-being of local people" by the International Ecotourism Society (Agyeiwaah et al., 2017, p. 18). The Australian Commission on National Ecotourism Strategy, on the other hand, describes ecotourism as nature-based travel that includes interpreting and educating visitors about the environment and is managed to be environmentally sustainable (Koivusalo, 2011).

Overall, ecotourism always occurs in a peripheral area or in nature, and the actions occurring benefit the environment or community. Examples of characteristics of ecotourism include travel that occurs in a natural environment, the use of alternative transportation methods, recycled materials, educating visitors to minimize the impact on the destination, and respecting the local culture, among others (Koivusalo, 2011).

The idea of ecotourism includes the preservation of ecological values and natural resources, with a focus on the cultural values of the surrounding area (Herbig & O'Hara, 2017). Ecotourism, according to Bickford et al. (2017), draws visitors to natural and distinctive settings where they are introduced to regional customs, cultures, lands, and resources. This facilitates a transformation in perceptions of impressions and diversity. Moreover, ecotourism promotes conservation through education and aids in the maintenance of natural environments. The desire for a fulfilling travel experience without having to disturb the natural environment can be used to explain the rapid expansion of ecotourism (Herbig & O'Hara, 2017).

Ecotourism has many advantages. For instance, it was discovered that West Virginians who self-identified were more conscientious and worried about the environment, more in favor of tourism certification schemes, and highly willing to support ethical firms even if it meant paying more (Deng & Li, 2015). Ecotourists spend more money than tourists who care less about ecology or conservation initiatives because of the sustainability measures that have been adopted. This is a crucial consideration for the polar regions, which are typically expensive to access and are particularly sensitive to disturbance (Bickford et al., 2017).

Ecotourism can also negatively or positively impact communities. For instance, economically, ecotourism can supply local communities with more job opportunities and boost the economy, particularly in developing nations or rural regions. However, infrastructure, capital, and attractions have to continue evolving with the growth of tourism, or the tourism business will oscillate (Bickford et al., 2017). On the negative side, this oscillation serves as an unstable income source and can severely disrupt the economy and the locals. However, the need to constantly change and access natural resources for tourist communities results in the deprivation of access to natural resources by the local communities, like fishing and hunting. This can adversely impact the locals and their culture, either by losing their cultural diversity and sense of culture through entering globalized labor or by driving them further away from modern society and economic opportunities (Herbig & O'Hara, 2017).

One of the main reasons individuals explore the world is to encounter cultural diversity. In this instance, ecotourism is essential for promoting cultural understanding through environmentally friendly travel. In this manner, the locals and culture are not harmed while still giving the general public a chance to learn about and become more aware of diverse customs and

civilizations. But when there are no clear rules or ethical standards, these cultures may be upended and begin to change in response to modernization and globalization (Bickford et al., 2017).

Notably, ecotourism management faces many challenges that include establishing an ecologically sustainable and profitable industry while at the same time attaining a satisfying experience for visitors and improving the living standards of the host community (Zolfani et al., 2015). However, it is essential for tourist destinations to encourage ecotourism due to the crucial role it plays in cultural education through sustainable tourism. Defining ecotourism is important for this thesis as it will help in understanding ecotourism in the Finnish tourism industry and how its practices have been made more sustainable (sustainable and green measures implemented in Finnish ecotourism).

2.6 The principles of sustainable tourism (sustainable destinations)

Ten principles for sustainable destinations have been developed by the Global Future Council on Sustainable Tourism and the World Economic Forum to help businesses, destination management companies, and policymakers promote behavior change and proactive planning to revitalize destinations and improve their offerings for a sustainable future (World Economic Forum, 2022). These guidelines are in line with the Sustainable Development Goals (SDGs), so they can be effectively incorporated into additional or current initiatives or planning procedures aiming to achieve the global objectives (Legrand et al., 2022). Notably, the ten principles entail certifying and monitoring scientifically, cultivating the workforce, prioritizing communities, aligning visitors, protecting heritage, protecting nature, producing and consuming responsibly,

calibrating infrastructure, governing effectively, and embedding resilience (World Economic

Forum, 2022).

Certify and monitor scientifically: this principle states that in order to move to a more inclusive,

resilient, and sustainable industry, sustainable destinations must establish certifications,

standards, and a well-balanced set of evidence-based criteria. (World Economic Forum, 2022).

This evidence-based and scientific measurement of indicators and key outcomes that show

tourism activities contribution to the planet, people, and prosperity is meant to complement

the traditional monitoring performance indicators that the sector has always used, such as

investment, visitor numbers, domestic and international air capacity, room supply, and

expenditure (Jones, 2022). Environmental indicators, cultural indicators, and additional

economic indicators that are related to reducing poverty, supporting local livelihoods,

maintaining the value of natural and cultural assets, and fostering overall local community

prosperity are all included in these sustainable destinations under this principle (World

Economic Forum, 2022).

Cultivating the workforce: according to this principle, in order to provide services with the

efficiency and quality required, sustainable destinations must cultivate and keep a qualified and

motivated workforce. Moreover, they must make sure that workers share the goals and values

associated with pursuing resilient and sustainable destinations (World Economic Forum, 2022).

Destinations that value sustainability can develop their workforce through involvement,

empowerment, training, and favorable employment terms and circumstances. All of these are

intended to support the growth of the tourism industry and conform to sustainability principles

as trained personnel model inclusivity, equity, stewardship of people and the earth, and climate alignment (World Economic Forum, 2022).

Prioritizing communities comprises sustainable destinations that give communities top priority and involve them in stewardship and destination design. This contributes immensely to the destination's integrity and impacts the experiences and services of tourism (World Economic Forum, 2022). Inclusive and transparent management planning processes for tourism destinations that prioritize continuous engagement of the community lay the foundation to establish social license, shared values, purpose sense, and legitimacy. This, in turn, creates implementation strategies and destination plans that enhance the well-being of residents in all its forms, promote a destination's resiliency, and better distribute tourism activity's economic benefits all through the entire value chain. Additionally, this also helps to elevate the travelers' experience quality and, eventually, the destination's brand (Scott, 2021).

Aligning visitors entails ensuring that sustainable destinations manage visitor numbers in a manner consistent with their carrying capacity and that management, marketing, monitoring, and education are in place to encourage and support visitors in making sustainable decisions. This principle recognizes that visitors are the tourism experience center and have the power to encourage travel to be a force for good while reducing the impact they may have on the destinations they visit. Through strategies to engage visitors, waste and resource consumption can be substantially minimized, and the experience derived from tourism can become an education enabler for sustainability and positively impact the local community (World Economic Forum, 2022). Accordingly, sustainable destinations assist visitors in making sustainable choices through sufficient education and marketing and through the generation of

awareness about potential adverse impacts. Moreover, destination managers can develop systems to encourage, gauge, recognize, and keep an eye on visitors' sustainable behavior when they take prompt action when sustainability and safety are in danger. The ideal way to implement these processes is to work with industry partners that coordinate their marketing efforts and actions. Avoiding crowding, taking into account the destination's capacity, and actively seeking out tactics that spread out visitors in order to loosen the seasonality pattern are all things that should be taken into account while managing and planning for visitors (World Economic Forum, 2022).

The principle of conserving heritage states that sustainable tourism destinations must safeguard their heritage and culture in a way that ensures the preservation of their cultural, natural, and historic heritage. This necessitates the early involvement of the local population as major decision-makers in the development of mechanisms to safeguard both the destinations and their own cultural identities in a way that is non-intrusive, genuine, and ensures permanence. By promoting tourist activities that are locally driven by involving key stakeholders in the community, destinations can allow the learning about local practices and enjoyment of visitors while evading the erosion of natural and cultural heritage (World Economic Forum, 2022). This principle is necessary because of how quickly tourism has grown, which has often led to overwhelming demands for cultural experiences, straining communities and causing the loss or dilution of their traditional activities and livelihoods to satisfy the needs of foreign visitors. Thus, protecting heritage is essential to preserving the destination's heritage by avoiding any negative impact or loss of authenticity due to excessive demand (Jones, 2022).

Protecting nature involves sustainable travel options that acknowledge that nature supports healthy economies and cultures, and they also encourage stakeholders to give management, conservation, and restoration of nature top priority (World Economic Forum, 2022). According to Jones (2022), biodiversity and nature tourism provide vital funding for worldwide conservation efforts and, in most countries, help to improve communities' quality of life and reduce poverty. Thus, destinations that prioritize and account for biodiversity and nature are more pleasing to visitors compared to places that are degraded and polluted. Lack of destination management results in severe erosion of nature and biodiversity, making the management of destinations more expansive over time and much less desirable as tourist sites (World Economic Forum, 2022).

Producing and consuming responsibly states that sustainable destinations must work with the travel industry to develop and implement strategies that encourage responsible production and consumption by all parties involved and establish mechanisms for promoting pathways of the circular economy in tourism in order to produce and consume responsibly (World Economic Forum, 2022). Using biodiversity, energy, waste, livelihood, and water indicators, this principle calls for the use of science-based environmental management systems to track the economic, social, and environmental impact of people's consumption and waste. Additionally, to promote investment in integrated practices and systems, educate the tourism supply chain, and ensure compliance, sustainable destinations must develop life-cycle assessments, generate social and economic incentives, and regulate efficiency for travelers and any indirect and direct tourism providers (Purcell et al., 2021).

According to the principle of calibrating infrastructure, for the inclusive and balanced development of sustainable destinations, calibrating infrastructure entails deliberate investment in and planning of sustainable infrastructure (World Economic Forum, 2022). Infrastructure investment for sustainable tourism involves providing the fundamental energy, environmental, and transportation utilities required for the development of tourism activities in a way that balances the burden on and interest of locals, protects the environment, ensures climate resilience, enhances climate resilience, promotes inclusive opportunities for all involved stakeholders, and ensures economic affordability and effectiveness over the life cycle of assets (Purcell et al., 2021). This is accomplished by providing resources for energy production, transportation links, and other built infrastructure, as well as supporting tourism-related activities and natural infrastructure in the form of resources that can be managed to preserve cultural and natural tourism assets. Additionally, this is accomplished through soft infrastructure, such as training programs, capacity-building programs, and awareness campaigns designed to support the tourism experience (World Economic Forum, 2022).

The principle of governing effectively states that effective regulation and inclusive governance are essential factors to enable, incentivize, and guide the users and players in the tourism sector to implement business behaviors and practices that promote sustainability (World Economic Forum, 2022). Effective governance is essential for having destinations that are sustainable because it makes sure that decision-makers accept the right legislation and that users and destination administrators put it into practice (Jones, 2022). This requires a combination of finding and establishing the governing bodies at the regional, destination, or state level that are in charge of organizing tourism-related activities and formulating policies,

developing sound policies informed by international best practices, involving local stakeholders to ensure understanding of top-down regulations and appreciating and supporting bottom-up initiatives, and building capacity at all levels to ensure adequate execution (World Economic Forum, 2022).

Regarding embedding resilience, this principle requires sustainable destinations to embed resilience as a crucial element of their tourism agenda. To prepare for the inescapable long-term political, health, and environmental pressures as well as potential short-term shocks like conflicts, climate change, pandemics, and extreme weather occurrences, tourist businesses, communities, and governments act in this manner (World Economic Forum, 2022). The goal is to better equip communities, systems, and individuals to endure catastrophic natural and man-made calamities, as well as to recover more swiftly and emerge stronger from the stresses and shocks they experience (Jones, 2022). As a result, the idea calls for sustainable destinations to go beyond conventional risk assessment and mitigation efforts that address particular crises in a recovery or preventative capacity. Instead, these places aim to strengthen the entire interdependent system by increasing resilience to numerous potential calamities in the future on the social, economic, and environmental fronts (World Economic Forum, 2022).

2.7 Sustainable and green measures implemented in the tourism industry

The green and sustainable steps taken in the tourism industry in many nations throughout the world have been documented by numerous studies. An evaluation of "the role of CSR and SLO in ecotourism: cooperation for economic and environmental sustainability of arctic resources" was conducted by Bickford et al. (2017), for instance. According to the authors' research, countries like Spain and Fiji had a rise in tourists in 2017, which clogged up the coast and

resulted in overdevelopment and overcrowding of beach resorts. Because sustainable business principles like corporate social responsibility (CSR) and social license to operate (SLO) were disregarded, this led to several issues like the destruction of natural attractions, environmental degradation, and deterioration of the resource supply. However, by later developing sustainable measures such as better CSR and SLO practices like eco-tours and education highlighting the unique country's nature, Spain was able to bounce back in the tourism market by offering more services tailored to visitors' expectations. The country took green and sustainable measures by providing sport, city, cultural, rural, and ecotourism in an effort to provide more to the tourists and avoid congestion of tourism on the coast. Spain is also working to reform its tourism industry by emphasizing social responsibility, lowering traffic, expanding education about ecotourism, and incorporating conservation (Bickford et al., 2017).

Another study by Paunovi and Jovanovi (2017) focused on the implementation of sustainable tourism in the German Alps as a case study. The findings revealed that the German Alps have integrated sustainability into their tourism sector under three themes: implementing sustainable tourism indicators, stakeholder engagement, and cross-border cooperation. For instance, with stakeholder engagement, sustainability in the region starts from the bottom up. It starts with arrival, where sustainable mobility plays a significant role, proceeds to accommodation, where resources are preserved while offering services, and continues to regional products and foods. Regarding nature-related tourism (ecotourism), institutions like the German hiking association and Berchtesgaden National Park are heavily investing in coordinating networks of diverse stakeholders. Planners of nature sports utilize specialized software to inform various stakeholders (hikers, bikers, and horseback riders) concerning the

usage of hiking trails and solve probable mutual conflicts. In this case, stakeholder integration

has become essential for creating high-quality products of sustainable tourism (Paunovi and

Jovanovi, 2017).

Another study by Haldane et al. (2023) investigated "Sustainable Tourism in the Face of Climate

Change: An Overview of Prince Edward Island" using a literature review. The study's findings

demonstrated that Prince Edward Island is steadily protecting its natural beauty in the face of

the consequences that a changing climate is having while simultaneously making efforts to

retain its tourism industry and become more sustainable. A few of the steps PEI has taken to

become more sustainable include installing numerous electric vehicle (EV) charging stations

across the island to make them more accessible to individuals who own EVs and

environmentally beneficial. The use of renewable energy is another environmentally friendly

and sustainable step the island has taken toward developing sustainable tourism. As a result of

the provincial government's dedication to providing rebate programs to businesses and citizens

for improved renewable sources and energy efficiency, biomass, solar, and wind energy sources

are gaining popularity in the province. The authors came to the conclusion that, while PEI has

made some positive strides in the direction of a more sustainable tourist industry, there is still

much room for improvement in the current practices (Haldane et al., 2023).

Additionally, Ibnou-Laaroussi et al. (2020) studied "Sustainability of green tourism among

international tourists and its influence on the achievement of a green environment: Evidence

from North Cyprus". The findings of the study showed that hotel managers contribute to

sustainable tourism by communicating the importance of a green environment to their guests

and instituting a mechanism for getting feedback associated with hotel operators'

environmental practices within their journey. This in turn enhances tourists' behavioral

intentions to be environmentally conscious and their perception of sustainability. The study

concluded that hotel management needs to elaborate an environmental awareness strategy for

their guests to enhance their awareness, which will influence the attainment of a green

environment at large. Also, the authors concluded that it is imperative for all stakeholders,

including entrepreneurs, the government, the private sector, and marketers, to generate public

programs that will showcase the way an environmentally responsible individual can help limit

the hostile tourism impact on the environment (Ibnou-Laaroussi et al., 2020).

Conclusion

The objectives and themes developed by the study have received support from many past

scholarly research articles. Notably, reviewing the past studies have indicated that tourism

destinations implement various green and sustainable measures including the use of renewable

energy sources in tourism destinations; better CSR and SLO practices like eco-tours and

education highlighting the unique country nature; providing sport, city, cultural, rural and

ecotourism in an effort to provide more to the tourists; implementing sustainable tourism

indicators; stakeholder engagement; cross-border cooperation; hotel managers implementing

communication on the importance of green environment to their guests and instituting a

mechanism of getting feedback associated with hotel operators' environmental practices within

their journey. These measures or strategies that various tourism destinations have taken align

with the principles of sustainable tourism.

Accordingly, this review has informed my research concerning sustainable tourism regarding

the green and sustainable measures that various tourism destinations have taken. However,

these studies were done in different settings and were mainly qualitative in nature. Thus, this study will use a systematic review to investigate how the tourism industry has taken sustainable and green measures, with a focus on Finland's tourism sector.

3 Implementation

3.1 Methods

The aim of this study is to investigate how the tourism industry has taken sustainable and green measures, with a focus on Finland's tourism industry. The study adopts a qualitative systematic review that will evaluate past studies to answer the research question. The systematic review will utilize content analysis to narratively synthesize the results of the independent studies that will be included in the review (Paré & Kitsiou, 2017). The author will follow the six generic steps in performing a review article, including research question and objective formulation, extant literature search, screening for inclusion, assessment of primary study qualities, extracting data, and analyzing data (Paré & Kitsiou, 2017).

3.2 Systematic Review Methodology

According to Ranganathan and Aggarwal (2020), systematic review entails a scientific process that is guided by explicit instructions and demanding rules demonstrating comprehensiveness, immunity from bias, accountability, and transparency of techniques and implementation. The method comprises a rigorous approach to choosing, assessing, and analyzing the existing literature. This method is crucial as the topic of sustainability in the tourism sector has drawn interest and attention in the public management area. Thus, this study topic warrants a broad

review, and the determination of what is known from what is not known is essential in demonstrating the extent of sustainability measures implementation in the sector and helping eliminate resource wastage for future research. Accordingly, the author will follow the six generic steps in performing the systematic review of the articles, including research question and objective formulation, extant literature search, screening for inclusion, assessment of primary study qualities, extracting data, and analyzing data (Paré & Kitsiou, 2017).

Research identification

The main aim of this study is to investigate how the tourism industry has taken sustainable and green measures, with a focus on Finland's tourism industry.

Research strategy

The author will conduct a literature search to obtain the articles that will be utilized for the review. The literature search will be done on databases such as CINAHL, EBSCO, Google Scholar, PubMed, and EMBASE. The author will use the Boolean phrases "AND" and "OR" as well as the keywords "sustainable practices", "green measures," and "tourism industry." These terms' synonyms will also be included in the search results. Figure 2 below shows the results of using the key phrases and Boolean operators to generate a total of 312 articles that produced 420 articles. After initial screening, 80 papers out of the 420 were eliminated because 63 were duplicates and 17 did not match research standards. The remaining 340 papers were screened using the abstracts and titles, leading to the selection of 16 articles. Eventually, the author chose 12 articles for analysis in the study due to their relevance and the lack of full texts for the articles.

Study selection (inclusion and exclusion criteria)

The author will apply the exclusion and inclusion criteria to screen the papers to be included for

review in the study. The screening criteria will include full-text accessible articles published in

the English language that relate to or answer the study questions and were published between

2010 and 2023. The exclusion criteria will include articles published after 2010 that cannot be

accessed in full, are not published in English, and do not relate to or answer the study

questions. The table below shows the PICOS used to conduct the preliminary search.

Table 1: PICOS Criteria

P: Population	Tourism industry
I: Phenomenon of interest	Sustainable and green measures
Co: Context	Sustainable tourism in Finland's tourism sector
S: Types of studies	English language, publication done between 2010 and 2023, and available in full text

Quality assessment

The studies that will be included based on Hawker scores will be critically reviewed as part of

the quality evaluation process. Each article will be evaluated according to the criteria listed in

Appendix 1 for each category: title, abstract, sampling, introduction, goals, data and methods,

data analysis, ethics and bias, results, generalizability/transferability, usefulness, and

implications.

Data extraction

After the final selection of the articles to include in the study, data will be extracted. The data extraction approach will be guided by the study variables or objectives. The emphasis on data extraction will be based on the findings of each study and the methodology applied to come up with results.

Inclusion and exclusion process

Identification

Records identified from*:
    Databases (n =420)
    Registers (n = 0)

Records removed *before screening*:
    Duplicate records removed (n = 340)
    Records marked as ineligible by automation tools (n = 0)
    Records removed for other reasons (n =0)

Screening

Records screened
(n = 340)

Records excluded**
(n =314)

Reports sought for retrieval
(n = 26)

Reports not retrieved
(n = 0)

Reports assessed for eligibility
(n = 26)

Reports excluded:
With reasons (n= 14)
    Full text (n =4)
    Year   (n = 4)
    Context (n =4)
    Book   (n=2)

Included

Studies included in review
(n =12)
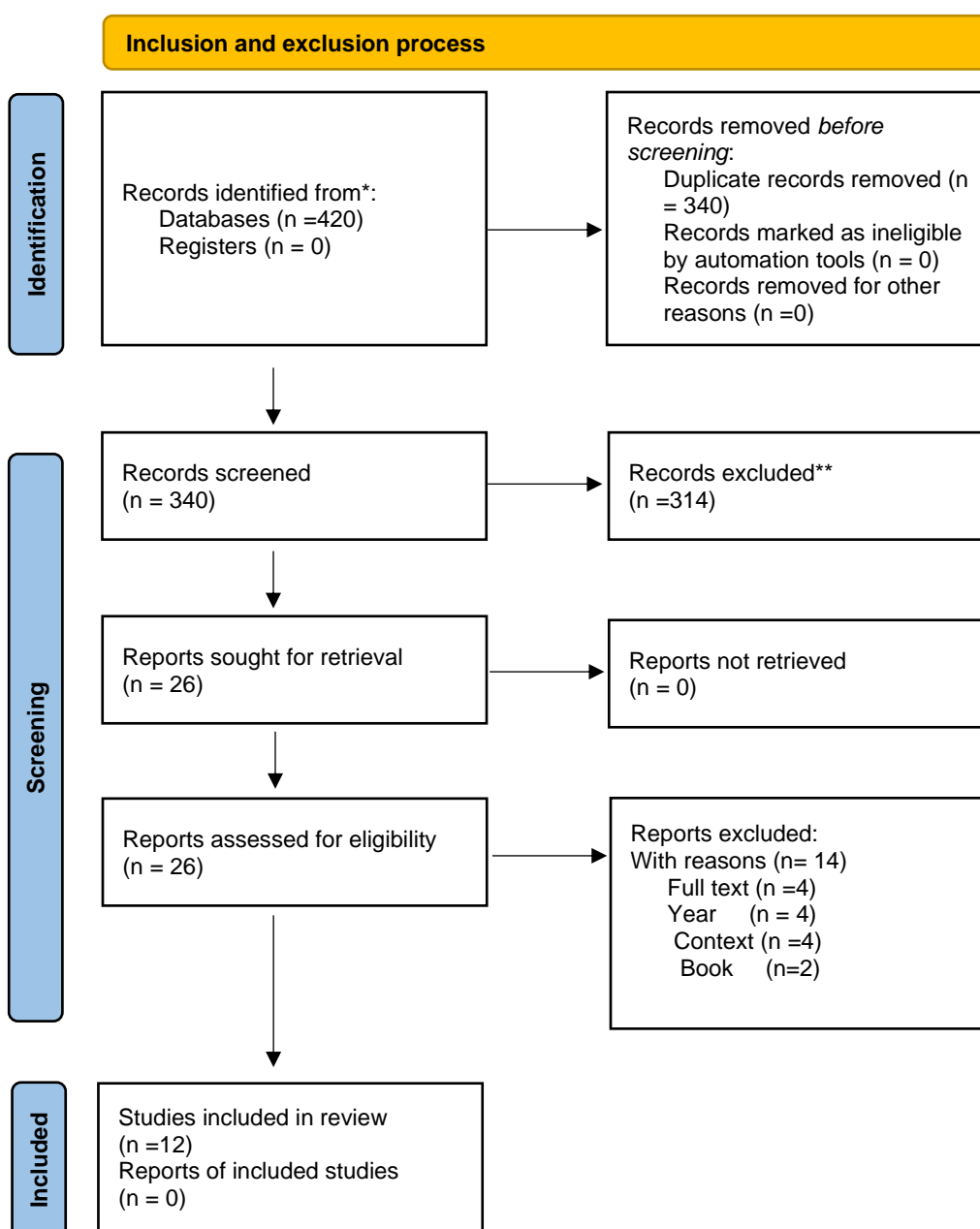Reports of included studies
(n = 0)

Figure 1: Inclusion and exclusion process (source: Paré & Kitsiou, 2017)

Data synthesis and analysis

The data analysis process will follow an integrative approach that offers a summary that is suitable for aggression and compilation. The goal of this review was to characterize, extract, and summarize the data from a variety of articles by using the existing literature found through the search procedure (Boland et al., 2017). The study will use content analysis as its primary method of data analysis for the information it will gather during the search process. Using content analysis, the chosen material is arranged so that, despite its clarity and consciousness, its informativeness becomes obvious. In particular, qualitative content analysis was selected for this study because it improves the readability of the source material and allows for solid conclusions regarding the phenomenon under investigation (Tuomi & Sarajärvi, 2018).

For this review, the data-driven qualitative content analysis is broken down into three sections: grouping, reducing, and developing theoretical concepts. All information in the data that isn't relevant to the study will be removed during the reduction stage. To do this, the articles' initial expressions will be underlined and presented in a single file, with the articles' expressions that relate to the thesis question presented as well. Reviewing and merging the reduced expressions that were extracted in the first step in their groups according to the phenomenon they will be describing will be required in the second stage. The subcategories that result from this will be titled after their contents. Subcategories will then be combined into higher categories, which will then be combined into main categories and eventually into linking categories that will be related to the research problem. The categories will be integrated in the final stage, depending on the newly established theoretical notions. The study question will be resolved by combining theoretical ideas (Tuomi & Sarajärvi, 2018). This analysis will be carried out as shown below

Sustainable and green measures taken in the Finnish tourism industry

Social measures

Environmental measures

Economic measures

"Koli National Park sustainable tourism strategy taken entail planning park activities involving as vast and constructive cooperation as possible that had a decisive role in the promotion of tourism, sustainable thinking and frameworks" (Karhu et al, 2022)

"Finnish tourism companies are increasingly committing to using renewable energy sources such as solar, hydropower, wind, geothermal and bioenergy as alternatives to the non-renewable sources of power" (Kankkunen (2022).

"The enterprises have optimized their operations by focusing on a specific target group and time period, because the limits of growth are reached quickly. In the entrepreneurs' opinion, it is particularly important to adapt the selection of services to the capacity" (Renfors, 2021).
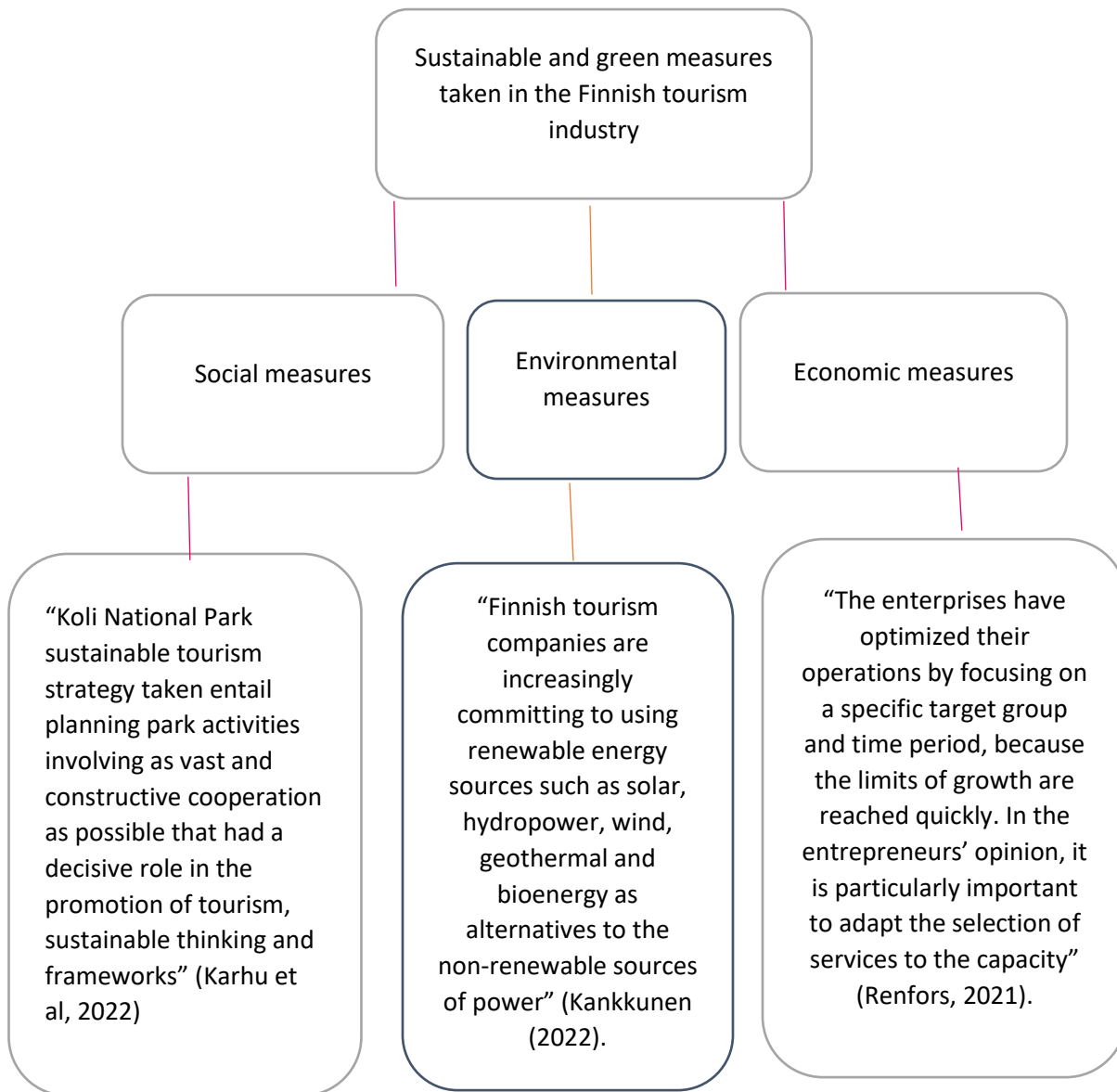
Figure 2. Data analysis process

4 Findings

The author selected 26 articles with 14 duplicates removed. This resulted in a total of 12 articles

selected, which were used to analyze the results. From the analysis, five themes on how the

tourism industry in Finland has taken green and sustainable measures were derived. These

themes include social measures, environmental measures and economic measures of

sustainability in the tourism sector. These themes represent the strategies that the Finnish

tourism industry has taken to implement sustainable and green measures in the industry.

Table 2: sustainable and green measures taken by the Finnish tourism industry

Theme	Subthemes
Environmental measures	Joining the space tourism industry The use of renewable energy
Social measures	Stakeholder engagement Social innovation strategy Development of ice-breaking tourism
Economic measures	Adapting the selection of services to the capacity

| | Ecolebals of tourism products and services and certification

Circular economy

Financial management disclosure measure

Policy formulation and commitment

Developing patterns and densities that are crucial in establishing the environment's quality |
|---|---|

4.1 Analysis of the green and sustainable measures taken by the tourism industry in Finland

4.1.1 Social measures

Studies have revealed that the Finnish tourism industry has taken different social measures towards sustainability in the sector. One of the studies by Karhu et al. (2022) on sustainability and tourism in Koli National Park found that Koli National Park has implemented a sustainable tourism strategy that includes organizing park activities and incorporating as much positive interaction as possible, which has been crucial in promoting tourism, sustainable frameworks, and sustainable thinking. **Stakeholder engagement** through networking was another measure used and is viewed as essential in Koli in order to at least partially succeed in achieving some of the sustainability goals. Equal participation was regarded as one of the most crucial elements in a previous study, particularly with regard to social sustainability. The development of networks

in the domains of research, planning, environmental education, information services, nature tourism, and resource management has been actively pursued in relation to this (Karhu et al., 2022).

The adaptation of residents to the national park and the utilization of cultural property as a tool for improving their livelihoods and as a tourist attraction has been one of the crucial methods to **collaborate and network as a sustainability strategy in the destination**. Locals are being assisted by the park managers in establishing the homestead and cultural organization. This form of collaboration played a significant role in the sustainability efforts that engaged the neighborhood and contributed to improving perceptions of the national park. Koli 2050 and Koli Cultura's joint structured plan is a good illustration of this way of thinking. The newest example of applying sustainable thinking to more ambitious tourist objectives is the Koli Cultura natural tourism center project, which will be located close to the national park. At every stage of the project, from design to construction to center operations, sustainability is addressed. Genuine experiences, content tourists, cost savings, and a thriving tourism industry are all reflections of the center's operations' ecological and social sustainability. If the idea goes through, a new hotel, campground, and cottage town with room for 1100 people will be built (Karhu et al., 2022).

Partanen and Sarkki's (2021) study on social innovations and sustainability of tourism: Insights from the public sector in Kemi, Finland, found that in order to promote social inclusion, employment, and the reuse of food waste, Kemi has adopted a **social innovation strategy** for its sustainability initiatives. By highlighting unconventional public sector viewpoints and cutting-edge, multi-sectoral grass-roots efforts to address social concerns at the local level, these

initiatives offer insights for tourism. This study argued that social innovations that entail cooperative processes that address local needs and produce original solutions as well as social and other value at the destination can inform the sustainability of tourism. According to the authors, social innovation insights can broaden perceptions of who is a stakeholder in the tourism industry, including the holistic, multi-sectoral aspects of sustainability, and present examples of how to use collaborative spaces for effective tourism planning (Partanen & Sarkki, 2021).

Saunavaara et al. (2023) found that tourism stakeholders in Kemi have established different strategies to cope with change and build resilience in the tourism context. One indication of the towns under study's capacity for regeneration is the early **development of ice-breaking tourism** as a new industry supporting older, more established forms of subsistence. According to the study's findings, sustainability measures in this area have focused on finding alternative uses for old, new, and renovated ice-breaking vessels, luring new types of (often domestic) tourists, and creating activities and facilities that are less susceptible to seasonal variation and climate change. This is done while also offering fresh local perspectives on ecotourism, e-tourism, and community-based tourism. For instance, e-tourism has taken a substantial step during the COVID-19 epidemic as a model of sustainable tourism in Kemi. According to the sustainable development agenda, e-tourism is a model that doesn't produce emissions associated with travel. Also, it can, at least in theory, provide year-round income and new jobs while fostering stronger links between the remote host community and potential or former tourists and serving as a marketing tool for in situ tourism activities (Saunavaara et al., 2023).

Similarly, Garca-Rosell and Mäkinen (2013) found that Finland and Lapland have implemented some sustainability measures to minimize the environmental impact of their tourist activities. The sustainability measure of the destination has a theoretical and practical framework for **involving tourism organizations in conjunction with stakeholders in the formulation and implementation of sustainability evaluations**. Furthermore, Kankkunen's (2022) findings demonstrate that the Finnish tourism sector has also taken sustainable and green measures through policy formulation by the government. The government, for instance, began a program called **"Sustainable Travel Finland**." By doing this, the government and business aim to develop this sector and meet the Sustainable Development Goals (SDG). With the help of this program, participants will commit to carefully planning, communicating, auditing, and measuring all aspects of disclosure and openness. This program will work to encourage all players in the tourism sector to contribute to corporate sustainability (Kankkunen, 2022).

4.1.2 Economic measures

The findings revealed that the Finnish tourism sector has taken several economic sustainability measures. According to Renfors (2021), one of the measures taken is **adapting the selection of services to the capacity of the archipelago.** First, the entrepreneurs in the archipelago (primarily small-scale family firms) had to rethink their methods of operation to become more sustainable due to the seasonality of tourism entrepreneurship, which was unable to provide employment to the residents during the summer seasons. As a result, they implemented economic sustainability in the region, which included carefully weighing their financial investments in light of the region's limited capacity and brief growing season. Because the boundaries of expansion are quickly surpassed, businesses have optimized their operations by

concentrating on a certain target audience and time frame. According to the business owners, it is crucial to match the capacity with the services you choose. In other words, reaching the correct target market with the right products and services is the primary driver of profitability (Renfors, 2021). Second, the entrepreneurs **created organized groups to make the tourist area more accessible**. This is because the archipelago is difficult to access because it is made up of numerous small, dispersed islands. Because entrepreneurs must invest in their own transportation equipment to bring customers to their businesses on the islands, accessibility issues make it difficult for the economy to remain sustainable. The answer has become organized groups and trips since they give individuals the chance to travel to the islands (Renfors, 2021).

Another study by Puhakka and Siikamäki (2012) on the nature tourists' response to ecolabels in Oulanka PAN Park in Finland revealed that Oulanka has implemented sustainable and green measures such as **ecolabels for tourism products and services and certification in the park,** such as the Protected Area Network (PAN) Parks. Pan Parks is trying to establish an ecotourism brand that promises guests a top-notch wilderness experience and the assurance that their trip will contribute to the preservation of these breathtakingly magnificent places. The study also revealed that visitors had a favorable opinion of eco-labels and certifications since they thought they were important and wanted to learn more about them and make them more visible.

Similarly, a study by Sarkki et al. (2013) found that the Finnish tourism industry, under its Oulanka National Park, has **taken certifications such as the Protected Area Network (PAN) Parks** as sustainable and green measures. According to the authors, bringing park managers, local businesses, and communities together to create a sustainable tourism plan for the region

is a crucial component of the PAN Parks ethos. This addresses the challenges and hazards facing the park while also creating chances to market the area to discerning eco-tourists in Europe. It is intended that the PAN Parks brand would also help to boost the number of visitors to the National Park, particularly the number of foreign visitors, as this will help to preserve the archipelago through nature tourism. Quality goods and enhanced collaboration between Metsähallitus and regional business owners are necessary for sustainable nature tourism (Sarkki et al., 2013).

Another study by Kankkunen (2022) found that Visit Finland and 60 other Finnish tourism companies and regions **signed the Glasgow Declaration for Climate Action in Tourism** in June 2022 as one of the sustainable strategies in the sector. The declaration offers a framework that, for the first time, unites all participants in the tourist sector around these common goals in five key ways: measuring and lowering CO_2 emissions, changing legislation, fostering greater collaboration, and securing money for development. With a plan directing them toward an inclusive and professional industry as well as a holistically sustainable vacation destination that will be carbon neutral by 2035, Visit Finland and the other businesses are doing their best to help achieve these goals. The climate actions taken by Visit Finland include things like responsible corporate travel, events, and communication. The Sustainable Travel Finland program's primary objective is to provide tools to Finnish travel agencies. The tourism industry will continue to offer economic possibilities and employment as a result, ensuring sustainable tourism. The Sustainable Travel Finland program's primary objective is to provide tools to Finnish travel agencies. The tourism industry will continue to offer economic possibilities and employment as a result, ensuring sustainable tourism (Kankkunen, 2022).

Another economic strategy that has been adopted by the Finnish tourism industry as a sustainable measure is **financial management disclosure** (Almteiri & Nobanee, 2022). According to the authors, the expansion of rural areas is one of this program's advantages. Finland has a unique rural landscape, and the government has committed millions of euros to enhance these outlying areas as part of a sustainable travel initiative. The idea is to promote such a destination to tourists in order to encourage them to have a beneficial environmental impact. As a result, there will be an increase in enterprises in rural areas, which will benefit the economy. The second consideration is the environmental impact, as the main point is to promote leisurely travel by favoring trains over vehicles and bicycles in local settings. The sustainable travel program developed this innovative idea so that more locations might be visited while on this long tour. Here, the visitor would stay longer in the nation and boost its economy while simultaneously minimizing the journey's carbon footprint. Likewise, the establishment of locally grown food and independently owned restaurants has only served to boost nearby businesses and associated industries (Almteiri & Nobanee, 2022).

The study findings by Bui and Trinh (2022) revealed that the **Nordic Swan Eco Label** is another sustainable measure taken by the Finnish tourism industry, especially the hotels. The Nordic Swan Eco Label is a prestigious symbol that denotes a company's dedication to sustainable growth and development. To demonstrate their dedication to the environment and to solidify their positions as members of the circular economy, the majority of big Finnish hotels and hotel groups wear this label (Bui & Trinh, 2022). Furthermore, Bui and Trinh's (2022) findings show that the tourism sector in Finland has also adopted the circular economy as a means of being green and sustainable. The results show that the tourist sector is an important stage in the

growth of a nation's tourism industry and a component of the **circular economy**. The circular

economy aims to reduce potential waste from the consumption process and promote greater

usage of natural resources. As intangible values are also subject to a circular cycle and the

tourism service business participates in it, this idea does not solely apply to the industrial

sector.

Nonetheless, the study findings by Tyrväinen et al. (2014) showed that Finland and Lapland

have implemented sustainable and green measures. The destination has **developed patterns**

and densities that are crucial in establishing the environment's quality. These developments

matter in tourist destinations because they have an impact on the outdoor activities related to

lodging. The tourist destination (Finland Lapland) has also implemented sustainable practices,

such as providing small-scale housing units, protecting habitats, building green infrastructure,

and facilitating easy access to the real environment near their hotel site. The study's findings

highlight the importance of thoughtful planning and design for tourist sites, with an emphasis

on eco-efficient land use, attempts to preserve natural forest vegetation, gardening methods,

and guaranteeing views of the outdoors from the accommodations.

4.1.3 Environmental measures

The study findings show that the Finnish tourism industry has also taken environmental

measures as another sustainable strategy for the sector. One of the sustainability measures

that the Finnish tourism industry has taken in terms of environmental measures is **joining the**

space tourism industry to reduce the impact on the environment caused by physical tourism.

According to Toivonen (2022), with the launch of the research satellite Aalto 1, Finland became

a space nation in 2017. Accordingly, in 2018, the government passed the first "Act on Space

Activities," which incorporated a proactive strategy for space sustainability. Moreover, space tourism includes astrotourism experiences on the Moon and Mars in addition to those on Earth (Toivonen, 2022). Virtual reality, comparative justice, technical advancements, and ecopolitics were the dimensions given to the sector. Experiencing the Northern Lights in Lapland, for instance, in Finland has combined traditional eye-viewing with other space-related, virtual multisensory possibilities, thereby enhancing local tourism employment as well as Finland's global technological competence in regard to operations supporting New Space Tourism Sustainability (Toivonen, 2022).

The author further adds that technological advancements for building virtual reality environments in tourism already give visitors options for joining various travel adventures via a virtual setting. As a result, in the future, this might democratize the space experience for a larger population. Only those who could afford the price of a space flight ticket were able to have a real physical space experience during the pioneering era. Tourism that is virtually experienced has the potential to eventually rival real-world travel and change more general tourism trends. So, the entire tourism industry can benefit from investments in virtual tourism and help address sustainability challenges more thoroughly. For instance, developing more authentic "nonflying" tourism experiences (Toivonen, 2022).

Additionally, the findings by Kankkunen (2022) showed that **using renewable energy** is another sustainable tourism strategy adopted by players in the Finnish tourism industry. The study findings highlighted that Finnish tourism companies are increasingly committing to using renewable energy sources such as solar, hydropower, wind, geothermal, and bioenergy as alternatives to the non-renewable sources of power that cause a lot of emissions to the

environment. The commitment to use renewable energy by companies in the Finnish tourism sector is seen as an eco-friendly measure to minimize the environmental impact of their activities on the environment.

5 Discussion

Through the review of literature and the information summary derived from the literature, this systematic review has found that the Finnish tourism industry has taken various sustainable and green measures, including economic, social, and environmental sustainable measures. These include environmental measures such as joining the space tourism industry and the use of renewable energy; social measures such as stakeholder engagement, social innovation strategy, and the development of ice-breaking tourism; and economic measures such as adapting the selection of services to the capacity, ecolebals of tourism products and services, certification, circular economy, financial management disclosure measures, policy formulation and commitment, and developing patterns and densities that are crucial in establishing the environment's quality.

5.1 Discussion of results

This thesis found that the Finnish tourism industry has implemented economic sustainable and green measures such as adapting the selection of services to the capacity, ecologies of tourism products and services and certification, circular economy, financial management disclosure measures, policy formulation and commitment, and developing patterns and densities that are crucial in establishing the environment's quality. These have been associated with benefits such

as increased tourists in the country and have contributed to providing quality tourism experiences, including tourists' products and services, while also preserving the tourist destinations. These findings relate to Bickford et al.'s (2017) findings, which evaluated "the role of CSR and SLO in ecotourism: collaboration for economic and environmental sustainability of arctic resources" (Bickford et al., 2017). The authors' findings showed that countries like Spain and Fiji increased tourism in 2017, which caused congestion of tourism on the coast, leading to overdevelopment and overpopulation of beach tourism. This caused many problems, such as natural attraction destruction and environmental degradation and deterioration of resource supply, because sustainable practices such as business corporate social responsibility (CSR) and social license to operate (SLO) were overlooked. However, by later developing sustainable measures such as better CSR and SLO practices like eco-tours and education highlighting the unique country's nature, Spain was able to bounce back in the tourism market by offering more services tailored to visitors' expectations. The country took green and sustainable measures by providing sport, city, cultural, rural, and ecotourism in an effort to provide more to the tourists and avoid congestion of tourism on the coast (Bickford et al., 2017).

These findings further align with the "certify and monitor scientifically sustainability principle, which entails sustainable destinations implementing certifications, standards, and a balanced set of evidence-based metrics to enable transitioning to a more inclusive, resilient, and sustainable sector (World Economic Forum, 2022). This evidence-based and scientific measurement of indicators and key outcomes that show tourism activities contribution to the planet, people, and prosperity is meant to complement the traditional monitoring performance indicators that the sector has always used, such as investment, visitor numbers, domestic and

international air capacity, room supply, and expenditure. These sustainable destinations include environmental indicators, cultural indicators, and extraeconomic indicators as they relate to poverty alleviation, local livelihoods, sustaining the value of natural and cultural assets, and building local community prosperity more broadly.

Also, these thesis findings reveal that the Finnish tourism industry has taken social and green measures to meet its sustainability objectives. These include social stakeholder engagement, social innovation strategies, and the development of ice-breaking tourism. For instance, the sector has been engaging stakeholders through collaboration and networking and also by involving tourism organizations in conjunction with stakeholders in the formulation and implementation of sustainability evaluations. These findings are in agreement with Paunovi and Jovanovi's (2017) study findings. The authors focused on the implementation of sustainable tourism in the German Alps as the case study. Their findings revealed that the German Alps have integrated sustainability into their tourism sector under three themes: implementing sustainable tourism indicators, stakeholder engagement, and cross-border cooperation. For instance, with stakeholder engagement, sustainability in the region starts from the bottom up. It starts with arrival, where sustainable mobility plays a significant role, proceeds to accommodation, where resources are preserved while offering services, and continues to regional products and foods. Regarding nature-related tourism (ecotourism), institutions like the German hiking association and Berchtesgaden National Park are heavily investing in coordinating networks of diverse stakeholders. Planners of nature sports utilize specialized software to inform various stakeholders (hikers, bikers, and horseback riders) concerning the usage of hiking trails and solve probable mutual conflicts. In this case, stakeholder integration

has become essential for creating high-quality products of sustainable tourism (Paunovi and Jovanovi, 2017).

The social measures findings of this thesis further align with the principle of prioritizing communities, which entails sustainable destinations prioritizing and engaging communities in stewarding and planning a tourism destination. This contributes immensely to the destination's integrity and impacts the experiences and services of tourism (World Economic Forum, 2022). Inclusive and transparent management planning processes for tourism destinations that prioritize continuous engagement of the community lay the foundation to establish social license, shared values, purpose sense, and legitimacy. This, in turn, creates implementation strategies and destination plans that enhance the well-being of residents in all its forms, promote a destination's resiliency, and better distribute tourism activity's economic benefits all through the entire value chain. Additionally, this also helps to elevate the travelers' experience quality and, eventually, the destination's brand (Scott, 2021).

Finally, these thesis findings established that the Finnish tourism industry has taken sustainable and green measures towards promoting sustainable tourism. These include joining the space tourism industry and using renewable energy. These measures have been perceived to enhance local tourism employment as well as Finland's global technological competence in regard to operations supporting New Space tourism sustainability while also minimizing tourism activities impact on the environment. These findings concur with Haldane et al. (2023) that Prince Edward Island is making steady progress to protect its natural beauty while also trying to maintain its tourism sector and making efforts to become more sustainable. Some of the measures PEI has taken to become more sustainable include having many electric vehicle (EV)

charging stations throughout the island to make the island environmentally friendly and also more accessible to those with EVs. Another green and sustainable measure the island has taken towards sustainable tourism is the increased utilization of renewable energy. Under this measure, biomass, solar, and wind sources of energy are becoming increasingly popular in the province, which is linked to the commitment of the provincial government to provide rebate programs to businesses and residents for increased renewable sources and energy efficiency. However, the authors concluded that even though PEI has taken several beneficial steps towards a more sustainable tourism sector, there is still a lot to be done to improve the present practices (Haldane et al., 2023).

The findings further align with the principle of protecting nature, which involves sustainable destinations, recognizing that nature supports healthy economies and societies, and encouraging stakeholders to prioritize nature management, conservation, and restoration (World Economic Forum, 2022). Jones (2022) asserts that biodiversity and nature tourism drive essential revenue for efforts in conservation globally and, in most regions, contribute to the livelihood of locals and poverty alleviation. Thus, destinations that prioritize and account for biodiversity and nature are more pleasing to visitors compared to places that are degraded and polluted. Lack of destination management results in severe erosion of nature and biodiversity, making the management of destinations more expansive over time and much less desirable as tourist sites (World Economic Forum, 2022).

6 Conclusion, limitations, and recommendations for further studies

Finland has taken several sustainable and green measures with regard to social, economic, and environmental aspects. These include environmental measures such as joining the space tourism industry and the use of renewable energy; social measures such as stakeholder engagement, social innovation strategy, and the development of ice-breaking tourism; and economic measures such as adapting the selection of services to the capacity; ecolabels of tourism products and services and certification; circular economy; financial management disclosure measures; policy formulation and commitment; and developing patterns and densities that are crucial in establishing the environment's quality.

Despite the various measures taken, there are still many areas in which the sector needs to improve to achieve its sustainable goals. This is because the research findings do not cover all the principles of sustainable tourism destinations. Thus, there is a need for more research to uncover more sustainable or green measures in the industry.

One limitation that may be present in this study is the potential for bias. This is because the articles chosen for inclusion in this study were those that could be openly accessed by the public, were published in English, or were freely available. While sustainable tourism in the Finnish tourism industry is a topic that is receiving increasing interest and a lot of research has been done on the subject, the article samples chosen and included in this study were not all-inclusive. As a result, bias is a potential weakness of this study. Despite a thorough search of the literature, it's possible that some potentially relevant research articles were overlooked for this review. Also, the process of choosing the literature sources may have involved subjectivity and bias.

Future research on this subject could take the form of a quantitative survey or interviews to determine how much the Finnish tourism stakeholders actually know about sustainable tourism and the negative effects the traditional tourism industry has on the environment, society, and economy of the country, as well as how the sector has taken sustainable and green measures and the benefits accrued from sustainable tourism practices.

Alternatively, research could focus on case studies. The research could narrow the subject matter it examines, particularly by focusing on the Finnish hotel and restaurant sector or other travel companies to determine sustainability. This narrowing down could help in gaining a more in-depth understanding of the sustainable and green measures that have been taken by individual sectors like hotels, travel companies, or tourist destinations.

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Appendices

Author	Title and abstract	Introduction and aims	Methods and data	Sampling	Data analysis	Ethics and bias	Results	Generalizability/ Transferability	Usefulness and implications	Total score
Bui, Q., & Trinh, Q. (2022).	4	3	4	4	4	4	4	4	4	35
Almteiri, S. & Nobanee, H. (2022)	4	3	4	3	4	4	4	3	4	33
Kankkunen, K. (2022).	3	4	4	4	3	4	4	4	4	34
García-Rosell, J. C., & Mäkinen, J. (2013)	4	4	3	4	4	4	4	4	4	35
Tyrväinen et al. (2014)	3	4	4	4	4	4	3	4	4	34
Sarkki et al. (2013)	4	4	3	4	4	4	4	3	4	34
Puhakka, R., & Siikamäki, P. (2012)	4	4	3	4	4	4	4	4	4	35
Saunavaara et al. (2023)	4	3	4	4	4	3	4	4	4	34
Partanen, M., & Sarkki, S. (2021	3	4	4	4	4	4	4	4	4	35
Renfors, S. M. (2021	4	3	4	4	4	4	4	4	4	35

Toivonen, A. (2022)	4	3	4	3	4	4	4	3	4	33
Karhu et al. (2022)	3	4	4	4	3	4	4	4	4	34