

Sustainable Solutions in Luxury Private Aviation

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This thesis was created as a commission for a Finnish travel company, Arctic Signature, that design luxurious tailor-made holidays in the Arctic and Nordic region. Many of their final customers are traveling to destinations by private jet, and that is why topic of the thesis is to research environmentally friendly solutions for promoting industry towards sustainability. Sustainability is one of the emerging trends in today's world which makes it very important also in the aviation industry. The main goal for the thesis is to find solutions for which factors affect the responsibility of private air travel as part of the luxury travel. The thesis was narrowed down to focus on researching topic from the perspectives of the service providers in the industry. Of the different aspects of responsibility, this thesis focuses on researching subject from the perspective of environmental responsibility.

Qualitative research was chosen as the research implementation form, which allowed the topic of the thesis to be studied comprehensively. Semi-structured thematic interviews were the primary research method, and interviewees were from different background operating either in the aviation industry or luxury segment. Questions were prepared in advance for the interviews which were implemented under four themes: luxury travel and defining luxury, ultra-luxury traveller, private air travel as a part of luxury travel and sustainability. All four interviews were conducted remotely and recorded for later transcription. Content analysis chart was used as a secondary research method. In this method, four private aviation providers' websites and social media accounts were reviewed from the perspective of responsibility.

Thesis started with creating a theoretical framework around the research topic. First part of the database focus on luxury as a concept and more on luxury travel by private jets. Second part of the database is focusing on researching movements towards sustainability in private aviation business.

Outcome is congruent with issues that emerge from both the interviews and the database. Promoting private aviation is developed further and actions have already been widely implemented, such as usage of sustainable aviation fuel (SAF), carbon offsetting programs and development of the jet engines and aircrafts technology are part of today's aviation industry. Using these has its own challenges, for example, demand for the sustainable aviation fuel is still low and its awareness must be promoted among the luxury travellers. Also, because of the lower demand, sustainable aviation fuel is still a lot more expensive.

This sector has opportunities to develop private aviation to be more sustainable and due to its small scope, all the actions towards sustainability are faster and easier to implement compared to commercial flying.

Key words

private jet travel, sustainability, responsibility, luxury travel

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1 Introduction

Luxury markets have been risen in recent years and it is predicted to continue its' rise. When looking the growth of the luxury market in 2023, forecast shows a positive trajectory. Traveling and tourism followed by consumption and international tourism has seen as the basis of the growth in the luxury market. In today's luxury travel world, old luxury meets new luxury. In new luxury, authenticity, nature and cultural values are highlighted with top-quality services and unique experiences. Then again elitism, being exclusive and traveling by private jet are truly elements of the old luxury. (Adamsson & Iloranta 2019, 4.)

This study focuses on researching luxury travel by private jets from the perspective of responsibility. The main target group for private jet travelers are high-net-worth individuals (HNWIs) who's liquid assets are one million dollars or more and ultra-high-net-worth individuals (UHNWIs) with net worth of at least 30 million dollars. Global wealth will rise over 38% in the next five years by 2027 and the global UNHWIs population will expand by 28% over the next five years. (Harley 2023.)

Important part of the ultra-luxurious travel is flying by private jets. Market of the private aviation business has been making a steady rise annually and increased its' value. The global private jet market value was worth over 24 billion dollars in 2020, and it is projected to reach over 37 billion dollars by 2028. The Covid-19 pandemic shifted aviation world when wealthy travelers started using private jets instead of commercial flights. Flight hours of private jets has been rising all over the world in the past years. In Europe, flight hours increased by more than 44% comparing to previous years. For ultra-luxury travelers private jets are a way to travel more productive and time-saving to reach their destinations. Demand of private jets is still rising and service providers in the industry must respond to it by adapting to changing trends. (Statista 2023.)

Sustainability is one of the emerging trends in today's world which makes it very important also in the aviation industry. A private jet emits from 10 to 20 time more CO2 per passenger than commercial aircraft. (FlyVictor s.a.)

This thesis focuses on researching the sustainability of the luxury travel by private jets. Of the different aspects of responsibility, this thesis focuses on researching subject from the perspective of environmental responsibility. Focus is to identify strategies and opportunities for reducing environmental impact of the private aviation while still maintain the benefits of this luxurious way of traveling. This study will have a role achieving to goal for researching ways to answer sustainability challenges in the industry. The main solution for the research is to promote sustainable and responsible practices with the aim of reducing environmental impact of private jet traveling.

1.1 Main subject of the research

For the study, main subject is to find solutions for which factors affect the responsibility of private air travel as part of the luxury travel. Different perspectives on this main problem are sought with the help of sub-questions: 'What kind of different perspectives of sustainability and responsibility are related in the luxury travel and in detail, private aviation industry?' And 'what practical solutions exist in relation to promote responsibility of the private jet travel?' Additional sub-question is: 'What challenges these solutions face when developing industry towards sustainability?'

Examining more detailed terms of the knowledge base with essential concepts gives a better understanding of the luxury and luxury traveling by private jet. Before implementing research is important to bring out essential concepts for giving more clarification into the topic. First is familiarized luxury as concept followed by luxury travel in general and private jet travel as a part of luxury travel. Second chapter of the data base is about sustainability of the private aviation and review for the aviation business overall.

This thesis is implemented with the qualitative research, which enables a wide understanding around the topic of the research. A semi-structured, thematic, interviews were used as a primary research method, which were carried out for people working either in aviation industry or in luxury travel segment. Content analysis matrix was used as a secondary research method, which brings more material for the research. In this method, the websites and social media of four different private aviation companies have been studied from the perspective of responsibility. Implement methods, interviewees and content analysis method are presented more in the chapter number four.

Implementing research started by choosing topic and then narrowing down more specific research problems. Main topic for this project was obtained from the commissioner of the thesis and problem of the research was defined to focus on researching responsibility at the ultra-luxury level when the main form of travel is private jets. Delimiting the topic was an important part in the initial phase of the research. First cuts were made to the target group of the research by focusing to study topic from the point of view of the service providers in the industry. Also, in this thesis goal is to focus on researching possible ways to make private air travel more responsible rather than finding alternative ways to travel instead of traveling privately. Topic of the research is topical because even more and more ultra-luxury travellers will choose private jets over commercial flights.

In the chapter after research implement methods is shown the results of the research. The results of the study are discussed through different themes and subjects. The goal is to promote actions

how private jet service providers can work for reducing their environmental impacts. The last chapter of the thesis consists of discussion and presents own learning from the research more broadly.

1.2 Presentation of the commissioner

The tourism sector has always been a big subject of my interest and during my studies I had an amazing opportunity to do my internship in a destination management company, Arctic Signature, which is focused on luxury travel. Arctic Signature is an award-winning high-end travel company that designs unforgettable luxurious holidays to the Nordic countries. Their most popular destinations are Finland, Norway and Iceland. Arctic Signature is based in Helsinki, Finland and company is founded in 2014. Main goal for Arctic Signature is designing authentic high-end experiences working exclusively in B2B sector with the leading luxury travel agencies and experience designers all over the world. Their experienced team designs unique travel itineraries for providing luxury travellers hyper personalized and tailor-made experiences during their holidays according to their own interests. (Arctic Signature s.a.)

Responsibility becomes as an important topic in Arctic Signature. Respecting the nature and the local culture can be seen in their designs. They want to help small local companies in the industry to develop their services and at the same time for guests to have an authentic experience with the local people and nature. Sustainability is also a very important topic for me, so it felt right to choose it as a perspective for the thesis.

Their main focus is to design ultra-luxury travel itineraries for the ultra-luxury travellers. Many of their final guests are flying to the destinations by private jet, which makes the subject of the research important and topical for the commissioner. Flying by private jet to destinations is one way of ultra-luxury tourism. Sustainability is an important topic in travel industry and luxury segment must evolve their services to meet the demand of more responsible travel form. Also, sector of the responsibility in luxury travel is still considered as less researched topic, and it is at the same time one of the most important emerging trends in the industry. That is why now is topical time to do research. According to commissioner, in the circles of the luxury travel industry, sustainability is a topic that is not often encountered, so now it is a correct time to examine the characteristics of responsibility in luxury travel.

2 Luxury travel

In this chapter focus is on getting to know more what is behind the word 'luxury' and luxury travel, which are one of the main topics for this project. How luxury has evolved over the years to today and how to define luxury. To understand fully the meaning of luxury experience as part of luxury travel, it is important to explain what luxury is. This chapter also discusses what the luxury travel market looks like now and what are the services that luxury travellers really look for. For this project it is also important to introduce main features of the luxury traveller who plays a huge role when it comes to luxury travel. It is also important to get to know trends of luxury travel in order to understand better luxury travel as a shape of tourism.

2.1 Definition of luxury

'A state of great comfort or elegance, especially when involving great expense' – this is how the current definition of the luxury is defined in the Dictionary (Oxford Dictionary 2014.). Luxury is more like a subjective idea instead of a one specific absolute, which is often in the eye of the beholder. (Swarbrooke 2018, 4.)

Luxury can be defined and experienced in multiple different ways. As a word, luxury, has multiple different definitions. It is difficult to define luxury to a one specific meaning, because it is a very broad concept and highly relative depending on the specifier. Even there is not a one definition for the word luxury, many definitions focus on a relatively small section of dimensions. These dimensions include high product quality, a high price, different levels of exclusivity and extraordinariness and positive customer emotions. (Fritze, Holmqvist & Wirtz 2020.) On the other hand, word luxury, is also associated usually with negative associations such as inequality, splurging, frivolity, unreasonableness, snobbery, overconsumption and spreading wealth. (Broström, Palmgren & Väkiparta 2016, 1.) The image of luxury is traditionally combined with material, to expensive designer bags, champagne, caviar, gold and glitter. Then luxury is something unattainable that communicates status. (Adamsson & Iloranta 2019, 4.)

Luxury can be divided in five different typologies of conspicuous luxury. It is assumed that the conspicuous luxury and consumption has a link with an individual's cultural setting which are shaped by certain social norms. (Batat 2019, 5.)

In the table below (Table 1.) is shown all five different types of conspicuous luxury. It is dived by types: economic conspicuous, social conspicuous, cultural conspicuous, symbolic conspicuous and emotional conspicuous luxury. These five different conspicuous luxury types have own goals that are typical for each luxurious behave. In economic conspicuous luxury type the main goal is to

show consumers' economic power and high standard of living. It is showing exterior sphere luxury cars and houses as examples. The goal in social conspicuous luxury is to show social success and high social status, for example by luxurious leisure traveling. Communicating about values, social identity and belonging to a certain consumer culture is the goal in cultural conspicuous luxury. This can be either exterior, interior or private sphere, for example luxury brand's clothing and accessories. Wine, art and vintage cars are examples for symbolic conspicuous luxury. In this type, the main goal is to show features of luxury consumption. Fifth typology of conspicuous luxury is emotional conspicuous luxury. It is a consumption to fill emotional, social and intellectual gaps, for example luxury spa and wellness. (Batat 2019, 5.)

Table 1. Five typologies of conspicuous luxury (adapted from Batat 2019, 5)

TYPE	OBJECTIVE	CONSUMPTION SPHERE	EXAMPLE
Economic conspicuous luxury	The goal is to show economic power, a high standard of living and wealth	Exterior sphere	Luxury car, luxury houses, etc.
Social conspicuous luxury	The goal is to show social success and high social status	Exterior sphere	Luxury leisure activities, travel, etc.
Cultural conspicuous luxury	The goal is to communicate values, social and individual identity and belonging to a certain consumer culture	Exterior and interior/private sphere	Luxury clothing, accessories, etc.
Symbolic conspicuous luxury	Self-oriented and serves to attribute meaning to luxury consumption	Interior/private sphere	Wine, art and master paintings, vintage cars, etc.
Emotional conspicuous luxury	It is a consumption to fill emotional, social, intellectual gaps, etc.	Interior/private sphere	Luxury spa and wellness, etc.

This project focuses on studying mainly social conspicuous luxury. As examples of this type of luxury are leisure activities such traveling. The goal for social conspicuous luxury consumers is to show social success and high social status. (Batat 2019, 5.) Ultra-luxurious traveling by private jet is part of social conspicuous luxury, because one feature of this traveling shape is to show success and high social status by traveling privately.

Luxury has a long history, and it has been developed its' shape during the centuries. As part of an old luxury is to show more own status by using luxury brands and materials, such expensive watches, cars and shining jewellery. (Adamsson & Iloranta 2019, 4.) Today, the meaning of luxury, is changing again. The consumption of luxury has become more private, subtle and individual. Rather as an external sign of living, success and social status, luxury is seen more as a reflection of personal values and choices when building own lifestyle. (Broström, Palmgren & Väkiparta 2016, 1.) Nowadays luxury is seen differently, and it has different motives, so that's why luxury can be divided to an old luxury and a new luxury. Old luxury is often associated to an external status which is normally appearing in the material, such luxury brand bags and clothes. New luxury focusses on more authentic experiences, responsibility and bringing out values affected to luxury consumer's lifestyle. (Adamsson & Iloranta 2019, 5.)

New luxury is like reflection of yourself and own position in today's world. It includes moments, new experiences and authentic services. It is unique and personal for each individual and even more often it appears as highly subjective experiences, rather than products and material. New luxury shows as investing yourself and well-being by having unusual new experiences, activities and customized services. It is not only for the upper class depending on the income, but new luxury is also available for everyone as individual. (Broström, Palmgren & Väkiparta 2016, 1.) According to Broström and her colleagues (2016), hybrid model is one character of new luxury. High quality product is not enough anymore, it is more like a starting point, where follows a whole path of customized services and wishes. It is even more important to guarantee private and tailor-made services in order to produce flexibility, which is one feature for new luxury. (Adamsson & Iloranta 2019, 5.)

Today's luxury is simple harmony of aesthetics. It is a whole experience of the object with all the senses and receiving all the different parts of the luxury services, products and experiences. Luxury is shaping all the tiny details as a part of the experience and making it personal and worth of quality. Like paying attention to details such quality of design products, personal customer services, scents and music in different places, welcoming and being served. Luxury actions, services and products need to have something special and extraordinary features that make them stand out as luxury. (Adamsson & Iloranta 2019, 5.)

2.2 Meaning of luxury travel

Luxury travel has changed throughout history by shaping alongside with new inventions. Its' main changing points has been developments of the transportation infrastructures, such significant development of the railways which opened new ways to leisure travel in early 19th century.

Globalisation and political changes have been shaped tourism and traveling into a different lever

over the centuries. Traveling started to offer more unique destinations to reach. (Swarbrooke 2018, 10-14.)

In tourism business there are many different levels and sectors inside. Many industries are part of tourism sector, such as cruise ships, villas and hotels, airlines, restaurants and various attractions in the destinations, various events and so on. That is why there are multiple different perspectives to define luxury in travel business. In luxury travel is highlighted especially high-end service during the whole chain of services. (Swarbrooke 2018, 167-168.)

Luxury travel is truly subjective, and it is all about knowing what luxury means to luxury traveler. For one traveler it can be million-dollar private cruise on a yacht, and for another it can be a wardrobe full of designer clothes waiting in the hotel room. In luxury travel the main goal is to create something so extraordinary, that it goes above traveler's personal "norm" to appeal customer's luxury experience. Travelers' perceptions of luxury will not only change throughout the lifetime, but it can change during the single holiday. Luxury travel in today's world means that services must be highly personalized and flexible to traveler's expectations. (Amadeus 2016, 4.)

2.2.1 Market of the luxury travel

Luxury and luxury goods have been evolved over the years to today and market by its side. Analysing the luxury travel market is not easy because of its' many different sales and distribution channels. Luxury sector in the market is a rare, high-growth sector, which has been tripled its' size over the past 20 years. Growth has been fuelled by the globalisation, urbanization, the prosperity of developing countries and the expansion of international trade. (Broström, Palmgren & Väkiparta 2016, 1.) Additional background factors, why the luxury market will fasten its' continuous growth, are developing globalisation, increase in power of purchase and effects of mass media and digitisation. For annual growth of the luxury market is predicted 4-5 %, when its' size is estimated to be 1135 billion euros by 2025. As a result of prosperity, even more consumers and travellers seek luxury. (Adamsson & Iloranta 2019, 4.)

Global market of the luxury can be viewed by dividing it into two different categories: personal luxury and experiential luxury. Meant of personal luxury is more like luxury products and goods for personal use, such leather accessories, watches, cosmetics, jewelry, and perfumes. Experiential luxury in other hand includes culinary experiences, such food and wine and fine dining, housing, exclusive vacations including luxury hotels and villas, high-level traveling and activities. (Altagamma & BCG 2020.) Luxury travel has a place in experiential luxury section. According to Altagamma's and Boston Consulting Group's, BCG, statistics (2020), in 2019, before the pandemic, part of experiential luxury was 64 % from the global luxury market. As an impact of

Covid-19 experiential luxury faced the biggest drop by decreasing demand from 40 to 60 % in the luxury market. (Altagamma & BCG 2020.)

Luxury travel and tourism market was the most affected by the pandemic. During the pandemic years, 60 % of the true luxury consumers and travelers cannot wait to travel again for leisure. And almost 50 % of respondents were still going to change their luxury consumption more from personal luxury to experiential luxury. The consumption in the luxury market will seek more exclusive and private experiences after the pandemic and it will be same in the luxury travel expectations. In the luxury travel market, consumers want more privately experienced accommodation, travel and activity options. (Altagamma & BCG 2020.) Altagamma and BCG (2021) predict that luxury travel market is one of the first travel market which recovery fully after Covid-19 pandemic.

In the luxury travel market, consumers can be divided into two types of luxury travellers: regular consumers who are namely rich, and the less affluent travellers who make 'once-in-a-lifetime' luxury travel to celebrate special occasions. The main group in the luxury travel market is 'high net worth individuals', HNWI. (Swarbrooke 2018, 48-49.) According to Forbes article (2023), HNWIs are people or households, who own liquid assets that are valued at \$1 million or more. HNWIs are the most prestigious customers in luxury travel segment and the population of HNWI is growing. The World Wealth Report 2022 shows that the total HNWI population has been expanded 8 % from 2021. (Grand View Research 2022.)

When thinking the market of luxury travel, it is important to know who are the travellers that affect the most inside the market. Age groups and generations have been categorized into millennials, generation X, baby boomers and silver hair. When it comes to revenues, the baby boomers are the dominating age group in the luxury travel market in 2021, and it is accounted for the largest segment more than 42 % of the luxury travellers. Baby boomers have time, wealth and desire to travel exclusively to different destinations with family and friends. Baby boomers will keep the first place for long, however the forecast for the industry shows that the millennials are estimated to grow fastest according to Compound Annual Growth Rate, CAGR. Millennials have a ready mindset for luxury and meaningful consumption for luxury goods also in tourism. Millennials are more travel-oriented than other age groups which fuel the luxury travel industry in the future. (Grand View Research 2022.)

2.2.2 Luxury traveller tribes

Amadeus (2016) report listed segments of future luxury traveller tribes, which are defined by their behaviours, intentions and varying levels of affluence. Different luxury traveller tribes are Always

Luxury, Special Occasion, Bluxury, Cash-rich and Time-poor, Independent and Affluent, and Strictly Opulent. These six segments of luxury travellers are the starting point for luxury service suppliers' strategies to understand different customer behaviours and needs. (Amadeus 2016, 18-19.) See the figure below (Figure 1.) of different luxury traveller tribes.

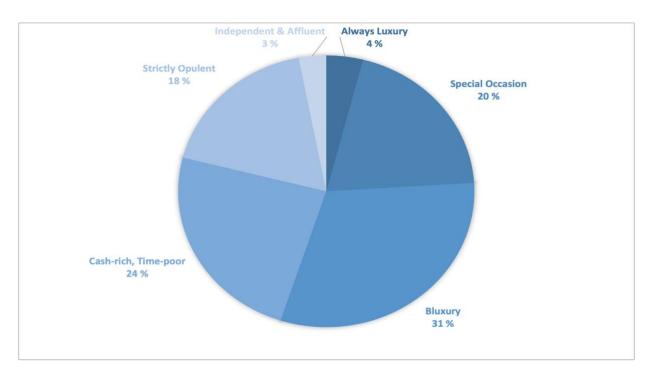


Figure 1. Luxury traveller tribes (adapted from Amadeus 2016, 18-19)

Many of these tribes are important for this project and will need a closer look to define. Most important luxury traveller tribes for this research are Always Luxury, Bluxury and Cash-rich, Time-poor. Tribe of Strictly Opulent is one of the most likely to rise group for ultra-luxurious travel in the future. These most important luxury traveller tribes for this research are presented below.

4 % of the luxury travellers are in the segment of Always Luxury. For these luxury travellers, money is no object and luxury is part of their everyday life. When it comes to holidays and travel, luxury is a minimum requirement and essential tool for making traveling streamlined and comfortable. These travellers will travel in first class or by private jet. This tribe is different from others by staying strictly with their travel intentions and they do not shift between tribes. (Amadeus 2016, 18-19.)

Bluxury with 31 % and Cash-rich, Time-poor with 24 % of the luxury travellers make another important group. Bluxury travellers have a business trip combined together with the luxury leisure travel. Trips mainly focus on business travel, and they have a money to extend their trip with luxurious leisure travel. For example, ending the business trip in exotic destination and then flying their family there to join high-end holiday. Cash-rich, Time-poor traveller tribe have often quickly

changing plans and schedule which makes them travel with flexible tickets or by private jet. These travellers most likely pay for third parties and outsource their travel planning and booking for people with expertise. Cash-rich, Time-poor luxury travellers seek private time during travels since it is a rare time to reconnect with themselves and loved ones. (Amadeus 2016, 18-19.)

Tribe of Strictly Opulent makes 18 % of the luxury travellers and this tribe is all about seeking out the best and the most glamorous travel experiences. This group share their luxurious holidays on social media which is important factor to these travellers. They want to be seen to having fun and living luxurious life in the holidays, for example by hiring a private yacht or plane with a group of friends. (Amadeus 2016, 19.)

These tribes Always Luxury, Bluxury and Cash-rich, Time-poor and Strictly Opulent are most important ones for the research, because luxury travellers who are traveling by private jet are described in all these categories.

2.2.3 Trends shaping the luxury travel market

Now, when the world has been recovering from the Covid-19 pandemic's effects, luxury travel is evolved step by step and luxury travel providers have new opportunities to build destinations and services. When luxury travel market is growing, new trends are shaping the industry and today's luxury service providers need to understand developing trends and adapt their services to match with consumer behavior. Emerging trends in the luxury travel market are gathered together in to the figure below (Figure 2.).



Figure 2. Trends in luxury travel market (adapted from Deloitte 2023; Wicks 2021)

Deloitte (2023) has been identified five noteworthy trends that are shaping the future of luxury travel: luxury travel adviser, digital innovation, ecosystem collaborations, sustainability and hyper personalization. Today the demand for personalized luxury experience is strong, and it is rising in the future market. The number of the high-end travelers is growing, and they are seeking more longer vacations and spending more to secure privacy, from booking private jets, islands and villas with own chefs. (Deloitte 2023.) Additional noteworthy trends to mention are prioritizing wellness, celebrating important moments in life together with travel, supporting local culture and locally owned business. Future luxury travels will continue focusing to destinations and itineraries that help travellers to connect with nature, de-stress and rejuvenate. Luxury travellers seek destinations where they get to be in the moment, get new exclusive experiences and at the same time support the local culture. (Wicks 2021.)

While DIY online research and bookings are on top with overall travel market, high-end travellers are doing vice versa. 85 % of the luxury travellers think that the best way to book personalized travel is via luxury travel advisers. Travel advisers bring practical advice, detailed knowledge of the destination and create a truly luxury experience for the high-end traveller. (Deloitte 2023.) Luxury

travellers are willing to pay for travel advisers to get ready, tailor-made itineraries, secure payment options and hyper personalized service.

Another emerging trend is offering and enticing high-end traveller new opportunities to experience luxury brands inside the luxury ecosystem collaborations. For example, hotels work together with designers and galleries to create luxurious interiors, fashion and luxury beauty brands offer product and spa packages for customers to use, and luxury transportation providers offer end-to-end travel experiences in the collaboration. These kinds of luxury ecosystem collaborations offer an opportunity to extend brands' influence as tastemakers. (Deloitte 2023.)

According to Wick's article (2021) different kinds of family celebrations combined with travel will have a rise among luxury travel. Honeymoons, big birthday trips and family gatherings are one of the big trends in the luxury travel market. Families are heading to long-haul adventures more than earlier. Scott Dunn's big part of the travel itinerary planning is toward epic luxurious family adventure packages. Wealthy families seek to visit destinations full of experiences that are suitable for parents and children from younger to teenagers. Long-haul destinations offer plenty of new outdoor experiences and opportunities to learn new skills privately together with the family. (Scott Dunn 2023.)

When the world develop forward, technology develops by its' side. Technology has a defining role already in smart tourism by elevating traveller's experience. Technology is powering luxury travel market by bringing added value to travellers. For example, traveller's luggage can be automatically transported to their hotels without need to collect luggage at the airport, which makes more added value to traveller by getting to destination faster and more easily. Everything about the journey is sorted ahead of time with technology. Luxury customers expect their trips to offer something new that surpass previous experiences. With developing technology is possible to identify each traveller's wishes and build even higher-level needs based on previous experiences. (Skift 2021.)

2.3 The future of luxury travel

The biggest and differentiating factor in the future luxury travel market between old and new luxury is to offer a relevant, personal and exclusive experiences. It is more critical factor in the future market because middle class is emerging and seeking the material aspect of luxury travel. Because of rising middle classes in developing economies, luxury has become less exclusive as more travellers are accessing it. (Amadeus 2016.) So, luxury service providers need to develop to answer their services for ultra-luxurious demand which separate industry to more personalized and exclusive luxury.

The size of the global luxury travel market is big, and it is getting bigger and bigger every year. In 2021 the global luxury tourism market size was valued at USD 638 billion. Luxury travel market is the fastest growing market and Compound Annual Growth Rate, CAGR, is projected it to grow 8-10 % through 2031. (Deloitte 2023.) There are many factors that are driving the luxury travel market to continue its' growing. Most important components for the grow are emerging and expanding markets, increasing number of HNWI and evolving consumer preferences. (Medium 2023.) Private experiences and being exclusive is highly growing in the market because luxury travel consumers are seeking even more personalized services. For example, private villas and authentic activities will keep their rise in luxury tourism segment and luxury travellers will highly value private time with family and their close ones even more than before. (Altagamma & BCG 2021.)

There are coming some changes with the generational traveler tribes. Younger consumers, millennials and gen z, are growing their worth and these generations are expected to almost double by 2026, representing total 75% of the luxury market. Not to forget other big generation groups, early gen z, baby boomers and silver hair, who are going to keep their strong position as a luxury consumer. In the future market, luxury providers should embrace a two-step strategy according to BCG & Altagamma (2023) study. In the short-term period, within next decade, luxury providers should embrace a bifocal approach, capturing opportunities of these both strong generational group with tailored solutions in marketing, products and communication level, recruiting younger generations and nurture the older. (Altagamma & BCG 2023.)

2.4 Luxury travel by private jets

For today's luxury travellers' convenience and privacy are valued commodities and that has caused an increase of interest towards chartering aircraft for exclusive personal use only. This sector of travelling has been rising around the world in recent years with leisure travellers as well as business travellers. Travelling by private jet and charters, traveller can choose the date and time of travel and flights can be operated from smaller airfields and airports which offers more options regarding to destinations. (Swarbrooke 2018, 238.)

Private jet business offers a lot of diversity from different ways to travel privately and vide options of services. Diversification in the private charter industry has been driven up by different factors like changing consumer preferences and higher demand of personalized travel experiences. There is a wide selection of different types of private aircrafts to cover choices of demand from short-haul flights to ultra-long-range jets. (Luxaviation 2023.)

Luxaviation's report (2023) also lists some advantages after having private jet ownerships over charter option. Having fully owned private jet is one option to fly privately but there are other categories. Renting a private aircraft is an option for not having to buy own plane, and semi-private flying is something between extreme level of air travel luxury and flying with masses sharing a private plane with other travellers. (Baran 2023.)

The ultimate sign of status for ultra-luxurious travel is the private jet ownership. It offers an exceptional amount of freedom, control and flexibility for the owner. There are many benefits when having a full ownership for private jets. One of the key benefits is the lower flight hour cost with higher utilization. For example, if flying privately a lot, hourly fee is lower versus to renting a private jet. (Compare Private Planes 2022.) When owning a private jet, it is possible to charter out the aircraft, when the owner is not using it. After the pandemic years there has been an increase in private jet ownerships. Pandemic showed how convenient, preferable and safe private aviation can be, when passengers make less contact with other travellers and crew members during their trip. As a result of this, wealthy individuals chose more personal aviation regardless of the higher price. This raised up demand to peak levels for the industry. (Jetset Magazine 2022.)

When traveling privately, high-end travellers are used to a different level of customer service. Companies in the industry provide a first-rate experience which is necessary for staying in today's competitive marketplace. It is important to provide high-end services to attract customers and there has been a growing trend of strongly emphasizing the customer service. Ultra-luxury travellers have higher expectations which is one of the major forces that keep pushing industry forward. High-end customers are used to luxurious lifestyle in their everyday life and regarding their travel plans, ultra-luxury travellers expect the same level of professionalism when it comes to customer services. Companies and manufactures offering private jets are investing even more luxurious and comfortable aircrafts. There are more versatile selections of fleet suitable for different lengths of flying. Better choice of onboard amenities is provided, such a top-quality entertainment system, gourmet meals and drinks, and individualized service from highly trained air hostess. (Luxaviation 2023.)

3 The movement toward sustainability in private jet travel

The aviation industry faces a lot of criticism for its environmental impact and companies in the industry have been focused on for developing more eco-friendly private jet charters. Travellers have become more aware of their effect on the environment, which has caused a rise in demand for eco-friendly actions, such as emission trading schemes and carbon offsetting. Focusing sustainable choices is one of the top trends in the aviation industry. (Luxaviation 2023.)

Many private jet charter companies are reducing their carbon footprint to make industry more sustainable. Most of the companies are investing new and more fuel-efficient aircrafts, which help to lower emissions and choosing sustainable aviation fuel (SAF). (Luxaviation 2023.) Jetset Magazine (2022) also listed the movement toward sustainability as one of the top trends in private aviation industry. Eco-conscious technology will shape the industry in the future and acts have already been made. Because demand for private jets is high, there is a bigger need for carbon offset programs. For example, the UK's Air Charter Service, have launched programs that allow travellers to pay a small fee, 0,5 %, to purchase carbon offset credits via different organizations. This is one way that travellers can compensate their environmental impact. (Jetset Magazine 2022.)

A private jet emits around 10 to 20 times more CO2 per passenger mile compared to a commercial aircraft. (FlyVictor s.a.) It is inevitable that private jet companies will have to make changes and actions towards more sustainable flying. So far, before new battery technologies and fuels, like sustainable aviation fuel and possible hydrogen fuels, become part of the everyday flying, the current main solution with most of the private jet providers is to offer the "extra air mile" for offsetting carbon emissions. Normally, travelers traveling by private jet has afford to compensate their flying emissions better than the average commercial flight traveler. In current private aviation world carbon offsetting programs have become a popular choice for travelers that want to counteract their carbon emissions after flying privately. These carbon offsetting programs help reduce traveler's carbon footprint and support sustainable initiatives and organizations that make a positive impact for the environment. (Robb Report 2019.)

3.1 Top trends in private aviation

Private travel industry is evolving and innovating rapidly. Industry has been changing over the years and all changes have affected both private jet owners and charter travellers. After Covid-19 pandemic private aviation industry has seen a rise with first-time flyers and companies focus more keeping their passengers safe during the journey. (Latitude 33 Aviation s.a.)

In the figure (Figure 3.) is collected all top trends that are shaping private aviation market now. According to different sources in the industry, Latitude 33 Aviation, Jetset Magazine and Luxaviation, the most important trends at the moment are rising demand for long-range aircrafts, more first-time flyers, increase in private jet ownerships, use of digital technology, sustainable aviation fuels, enhancing safety and health, acts toward sustainability, being family-friendly and minimizing costs.



Figure 3. Top trends in private aviation (adapted from Jetset Magazine 2022; Latitude 33 Aviation s.a.; Luxaviation 2023)

The movement towards sustainability is one of the most important trends that shapes todays and the future private aviation industry. While industry is growing fast and more private planes are flying, there is a big need for carbon offset programs. Companies are developing their aircrafts toward more sustainable way of flying. For example, in Jetset Magazine (2022.) article is listed different airplanes which are build more fuel-efficient way. Example of environmentally friendly aircraft is Gulfstream G400 plane, which is equipped with aerodynamic clean-wing design. This aircraft model consumes less fuel while flying longer distances while keeping its luxurious and comfort. Another eco-friendlier aircraft model is Hondajet Elite S, which also has made fuel efficiency as one its' key role. This slim aircraft has one of the lowest CO2 emissions in the

industry and it reduces both environmental and noise pollution, and at the same time travellers can enjoy smooth, silent and more sustainable ride. (Jetset Magazine 2022.) Many companies are investing in sustainable aviation fuel (SAF), which is a biofuel with a smaller carbon footprint compared to conventional jet fuel generated from renewable resources. (Luxaviation 2023.)

Minimizing costs has become an emerging trend in the industry and companies must focus on more providing high-quality services while straying competitive in the market. One way that private jet charter companies minimize costs is by utilizing new digital technologies to intensify operation. (Luxaviation 2023.) Private jet owners will seek more cost-efficient suppliers that offer high-quality products and services. Suppliers and aircraft managers will have a bigger role when it comes to minimizing costs by helping owners find the right airports, supplies and availability. (Latitude 33 Aviation s.a.)

As Covid-19 pandemic started an emerging trend of making private aviation one of the most popular air travel trends, high-end travellers want to travel even more on their own terms. (Latitude 33 Aviation s.a.) Trend toward private jet ownership has expanded the market of used private jets and it is projected to continue its growth over the next five years. (Jetset Magazine 2022.)

3.2 Sustainable goals in aviation industry

When looking the whole aviation sector, it currently contributes to 2-3% of global carbon emissions, with private aviation having 0,04% part of the total global CO2 emissions. As a number it looks like relatively low contribution, but despite of this, aviation has always been as a heavy emitting sector, and it has been considered as a "hard-to-abate sector" because is one the most difficult sector to decarbonise. (FlyVictor s.a.)

Private aviation is part of the aviation industry, and sustainable aviation is topical trend in today's world. Sustainable aviation is a big field that finds solutions to improve the social and environmental impacts of air traveling. The main goal is to reduce aviation industry's contribution for climate change trough new innovations. These innovations and solutions are, for example, energy-optimized flight operations to reduce aircraft's energy consumptions, noise and emissions, new lighter and quieter aircraft designs, novel propulsion systems and greener aircraft technologies. Professors from Michigan university listed in their sustainability report, what are all the sections to analyse in research of sustainable aviation. These applications in research include electrified, appropriate fidelity and system-level analysis of advanced concept and hydrogen-powered aircraft models, sustainable aviation fuel (SAF), renewable and alternative energy sources, improved air traffic management, emissions and noises. (University of Michigan s.a.)

Whole aviation industry is making moves toward sustainability, and IATA and its' members have committed to an ambitious target, making flying net zero by 2050. International Air Traffic Association (IATA) is working together with the industry to cut emissions by 80% with new technologies and sustainable aviation fuel (SAF). IATA's forecast for aviation predicts a 2,3% annual compound growth through 2050, which means that actions towards sustainability are needed. Additional acts are investing in new aircraft technologies, for example, aerodynamic and different propulsions such electric or hydrogen solutions. Improving in air traffic management by planning more direct routes is also a one act toward sustainability. IATA's Director General, Willie Walsh, describe actions to net zero by 2050 that it is movements for all aviation's stakeholders to deliver the tools needed to make this goal success. (IATA s.a.)

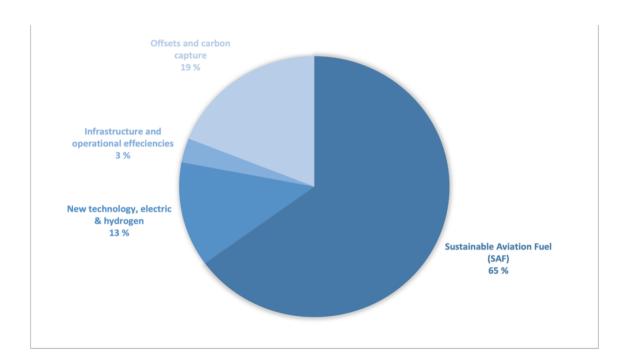


Figure 4. Movements to achieve Net Zero by 2050 (adapted from IATA s.a)

In the chart (Figure 4.) is shown how IATA is planning to achieve net zero by 2050. 65 % usage of Sustainable Aviation Fuel (SAF), 13 % of investing in new aircraft technology with electric or hydrogen solutions, 19 % usage of compensations to invest in carbon capture and storage technologies and 3 % of improving in air traffic management which means, for example, more direct routes. (IATA s.a.) With private jet companies these steps are easier to reach. Even some of the private jet companies may not be part of IATA these actions towards sustainability are important in whole aviation industry.

3.3 Innovations towards sustainability in private aviation

One of the most important innovations towards sustainability is sustainable aviation fuel. Sustainable aviation fuel (SAF) is a biofuel with a reduced carbon footprint than conventional jet fuel generated from renewable resources. It can be produced from different sources like waste oil and fats, green waste and non-food crops. These feedstocks do not degrade the environment or compete with food and water. Sustainable aviation fuel reduces CO2 emissions by 80 %. Processing can be done synthetically by capturing carbon directly from the air. It is more sustainable, because the raw feedstocks used for SAF, are not competing with food crops or water suppliers and it is not related to forest degradation. (IATA s.a.)

One example for using SAF is private jet charter company, Fly Victor. Fly Victor is on a mission to promote awareness of sustainable aviation fuel solution in the private aviation industry working together with Neste, the world's leading producer of renewable fuels. (FlyVictor s.a.) Sustainable aviation fuel is already recognised by the aviation industry as the key solution in reducing carbon dioxide emissions. Fly Victor has a unique place on-demand private jet charter provider by offering SAF for every booking made with the company, regardless of operator or departure airport. (FlyVictor s.a.)

One side of the innovations is understanding the challenge of sustainable development by embracing solutions that prioritize environmental sustainability. With modern and renewed fleet are seen to be one solution in moving towards sustainability in private aviation. By investigating new aircrafts with advanced fuel-efficient engines can be reduced emissions notably per passenger. Modern eco-friendlier aircrafts are designed with more efficient technology for optimizing fuel consumption and minimizing aviation's environmental impacts. Usage of lightweight materials also enhance fuel efficiency that reduce emissions of the flight. All aspects of the aircraft need to be optimized for eco-friendlier travel. (Medium 2023.)

Private jet companies that react quickest to the growing demand for sustainable travel will have a competitive advantage compared to others. GlobalData's (2020) survey shows that 43 % of respondents thinks that they are always or often influenced by how environmentally friendly and socially responsible service is. So, airlines, that offers and are making actions towards sustainability will potentially be more appealing to almost half of all travelers. Luxury travelers with personal sustainability goals will be taking private jet running on SAFs rather than commercial flights fueled by petroleum. (Jetset Magazine 2022.)

Sustainable aviation fuel is expected to be one of the key solutions for changing aviation industry toward sustainability, but there are challenges. A big challenge is sustainable aviation fuel's high price. Currently SAF costs around twice as much as fossil jet fuel. (Owens Thomsen 2023, 12.)

Another prominent challenge is risks between demand and supply which are not on the same level yet. One reason for this demand challenge is consumers preferences and habits of shifting to the usage of a new, not yet well-known fuel. So far, the mandates taken for reducing emissions have not been regulated, i.e., companies do not have to use, for example, SAF in their planes. (Publicis Sapient s.a.)

For reaching all these net-zero goals, airlines have to increase investments towards production companies, sustainable aviation fuel providers and for developing research of these acts. (Publicis Sapient s.a.)

Another challenge for moving aviation industry towards sustainability, is regulations and policies. Industry is in a need for stronger policy to focus on more aviation emissions. There has been a lack of regulations considering about aviation emissions. After the Covid-19 pandemic, the Carbon Offsetting and Reduction Scheme for International Aviation, CORSIA, changed together with the UN aviation organization, ICAO, that there are not obligations for airlines regarding for offsetting emissions and using biofuels. (Timperley 2021.)

4 Research methods

In this chapter is introduced the method of this research and its' different phases how its implemented in more detail. In addition, in this chapter is discussed more closely collected data for the project in interview format and how the research is carried out. At the end of this chapter, it is also examined about the reliability of the research.

In this thesis, qualitative research method is used because the main purpose is to get a holistic approach of the phenomenon. The main subject of this research is to find what different factors are affecting to ultra-luxury traveling. This main subject is meant to be solved with the help of subquestions. First sub-question is to research what different aspects of responsibility are related to luxury tourism, good and bad aspects. With the chosen research method is supposed to find out also what practical solutions are already existing when it comes to promoting more sustainable way of fly privately, and what possible solutions would be used in the future with private air traveling. The main goal for this research is to find more responsible ways of luxury travel while traveling with private jets and what kind of choices this requires from the service providers and companies in the industry.

Based on understanding the topic and problem of the research, qualitative research method has been chosen as the research form. Qualitative research method is chosen instead of quantitative research because the phenomena and topic are meant to be understanding more deeply and comprehensively. In this project, the idea is to have more natural option for the implementation, and method ended up being qualitative study that describes the chosen topic and brings out different points of view and opinions instead of a calculated method option. A semi-structured data collection has been used more theme interviewing style, where all questions are prepared and selected in advance for the participants of the interview. Questions are the same for all interviewees and they had a chance to see questions before the actual interview and answer them openly.

4.1 Qualitative research methods

For this project is chosen qualitative research as method and this method is used specially then when the phenomenon under research is wanted to understand more deeply. The object for qualitative research is normally human behaviour, opinions or motives. In this method the main focus is to try to understand different features and characteristics of the problem under the study. (Shuttleworth & Wilson 2008.) According to Heikkilä's study (2014), qualitative research method answers specially to questions why, how, and what kind of. Research method usually is limited to a

smaller group of subjects which is why the goal of qualitative research is understanding the research object, rather than finding out the quantities. (Heikkilä 2014.)

According to Kananen (2019), in qualitative research method the material can be collected by using different methods. Material can be collected either primary or secondary way. In primary material collection method, all material for research is collected only for a specific research problem which always require fieldwork. For this method, material can be collected by, for example, semi-structured interviews, benchmarking analysis or observation. Secondary material collection method means researching data from already existing documents, such literature, studies and statistics, reports, websites and social media channels. Overall, this multimethod study helps to produce more reliable and valid research results. (Kananen 2019, 28-29.) In this project, both primary and secondary methods are used as material collection methods. Secondary method supplements the data collected from primary method, which complements the final result obtained from the research.

When it comes to type of research, qualitative research is empirical, which means it is based on observations and experiences. Qualitative research is an entity where data is collected from reflections and problems of data analysis. Also, one of the projects characterises is its' feature as a comprehensive acquisition of information, when material for the research is collected from actual situations. (Tuomi & Sarajärvi 2011, 19.)

4.2 Semi-structured interviews as a primary research method

In qualitative research the most commonly used primary data collection method is interview. This method is depending on the study problem being investigated and it is used side by side with secondary collection method in this research. Interviews are normally divided into a form interview, a theme interview and an in-depth interview. The main difference between these interview formats is related to its' different relationships how the phenomenon under study is agreed, as well how the usability matches in relation to the theory of openness. (Tuomi & Sarajärvi 2011, 71.)

In semi-structured interview process, also known as thematic interviews, all interviewees are asked the same questions in the same order. There is no a fully definition of the implementation of semi-structured interviews, it is a partially defined somewhere between a fully structured form of interview and theme interview. So, in practise, semi-structured interview can be called a theme interview when specific questions are asked under certain themes. Sometimes interview can be used different shape of words or order between interviewees. (Saaranen-Kauppinen & Puusniekka 2006.) In English, the concept of thematic interview is not well known, and that is why it is often talked as semi-structured interview. (Hyvärinen, Suoninen & Vuori s.a.)

For this research is decided to use theme based semi-structured interview as a primary method, because the form of interview is freer. Although, a semi-structured interview is suitable for this research, because in this case it is desired to collect information about certain topics, and therefore there is not given too much freedom to the interviewees. (Saaranen-Kauppinen & Puusniekka 2006.) For example, interviewees can answer freely by discussing about the topic under specified question, but they must stay under the given themes. Perception and conversation related to questions under the topic is more natural between interviewer and interviewee, and interviewee has a chance to discuss about topic under given questions more flexible. Even during the interview, the process is made according to key themes chosen in advance and clarifying questions under themes. The flexibility can be seen in the fact, that during the interview, questions can be asked in the order that interviewer thinks is most profitable to keep interview in natural order, and interviewer has an opportunity to repeat the questions and clarify if needed. (Tuomi & Sarajärvi 2011, 72-75.)

The most important goal of the interview is to collect as much information about the topic of research as possible. One of the advantages of the interview is that selected interviewees are often experienced of the phenomenon under the research, and most likely they are professionals from the industry. Another important goal of theme based semi-structured interview is to find meaningful answers related to purpose of the whole research and the problem of the project. (Tuomi & Sarajärvi 2011, 72-75.) Even the themes and questions are decided beforehand, in semi-structured interview is room for other discussion around the given topic as well, which can provide some new information that is not expected.

Results has been decided to analyse by using the SWOT analysis model, which allows to view the study problem through several different perspectives. SWOT analysis model gives a better understanding of what kind of strengths and challenges the promotion of responsibility in private jet travel is encountered as a phenomenon.

SWOT analysis comes from words strengths, weaknesses, opportunities, and threats. It is one of the world's most used ways to evaluate business opportunities, as well to develop strategic planning. In the SWOT analyse model, the item under the development is examined in the sights of both internal and external factors. (Kansio s.a.) SWOT analysis method collects information from internal sources, strengths and weaknesses of an initiatives, as well from external forces, opportunities and threats, that might have uncontrollable impacts to strategies. (Kenton 2023.)

4.2.1 Structure of the interviews

In this project the semi-structured interviews consisted of four different themes related to the main problem under the research (Figure 5.). Under each theme is collected theme-related specified questions that interviewees got to know beforehand. The whole interview is structured of a total of 12 questions, which were placed under themes (Appendix 1).



Figure 5. Interview themes

From the figure (Figure 5.) is seen all different four themes that gives the structure for the interview. First theme is processing generally luxury traveling and luxury as a concept, which can be find studied in the database chapter 2.1. Under this first theme there are four clarifying questions. Main purpose of the first theme is to get overall picture how the interviewee defines luxury and how does luxury appear in their business. With this theme, it is also wanted to find out the interviewee's view of how luxury travel has changed over the years. Like it is mentioned in the database chapter 2.2, meaning of the luxury travel has been changing during the years as well traveller's perspectives, which is why is important to get interviewees insights about this theme. Second theme process the clientele of ultra-luxury travel, and under this theme are two specifying questions. It is wanted to know who the main travel groups for interviewee's company are, that flies mainly by using private jets, and what kind of wishes clients have regarding to private air travel.

Third main theme is private air travel as part of luxury travel. This is wanted to clarify with two questions under the theme. Main purpose of this theme is to hear interviewee's sight what trends in private air travel are emerging at the moment in their company. Also, the goal is to get interviewee's opinion what kind of possible changes are rising related to demand of private air travel as part of luxury travel in the future. As is presented in the chapter 2.4, the demand of private aviation has been rising over the years and with this theme the goal is to get topical sight of the demand.

Fourth theme is processing sustainability of the private air travel and overall responsibility in the industry. This is the main theme for this whole research, because the main problem of the thesis is related to sustainability of ultra-luxury travel by private jets. Whole industry has been faced criticism as is mentioned in the sustainability related database chapter. Under this theme are four clarifying questions to get most of this theme. With this theme is wanted to find out how interviewee's customers are aware of sustainability and how does it affect to their choices when traveling privately. It is also wanted to collect information which factors are emerging considering the responsibility of private air travel. Under this theme the goal is to hear what kind of air-related measurements interviewee's company uses when it comes to promoting sustainability.

Interviews are recorded for analysing content afterwards. First when all interviews are successfully done, each interview will be transcribed, so that the main points can be picked out from the content easily. Transcribing mean that recorded interviews is changed from oral form to written form. The interviews are carried out in a free-form conversational manner within given questions, so that is why transcribing is an important phase for collecting the main points for analysis. With theme based semi-structured interview the goal is to collect comprehensive information, which can be compared in the results previously found knowledge related to the topic.

4.2.2 Interviewees

Interviewees for the research are all professionals from the industry, either from aviation or luxury travel sector. The goal was to get interviewees from a multiple different private aviation company, but it turned out to be a challenge to reach out that many people from the industry, as it was planned. But in the end interviews were success, and all the interviewees described their own sight regarding their background and experiences in the industry. In the beginning was reached out total six possible interviewee from different companies in the private aviation industry, however only two of them showed interest in participating to the research. Fortunately, two interviewees were found from teaching sector of the field, who brought different perspectives to the research. So total, four interviewees participated, which is an acceptable number as part of qualitative research method. All four interviewees works either in the tourism or aviation industry in different positions, which offered the research different perspectives depending on the sector of expertise of each interviewee. Two interviewees are from private aviation industry which gives a good comparison between two different private aviation target group inside the same service provider. And other two interviewees are senior lecturers from luxury travel segment part of tourism management and over all aviation business. All four interviewees are shown in the table (Table 2.).

Table 2. Interviewees

Interviewee	Company	Date	Implementation of the interview	Duration
Sales Manager	Euroflite	26.10.2023	Teams	55 min
Senior Lecturer, Travel	Haaga-Helia University of			
Management	Applied Sciences	8.11.2023	Teams	50 min
Senior Lecturer,	Haaga-Helia University of			
Aviation Business Team	Applied Sciences	8.11.2023	Teams	50 min
Head of Sales	Jetflite	17.11.2023	Teams	30 min

All the interviews were made via online connection in Teams during October and November 2023. Interviews lasted between 30-55 minutes with each interviewee. Every interviewee has a strong background and experience either in aviation business or luxury travel sector, and that is why the interview material can be considered as justified and trusted research method together with a theoretical framework.

First interviewee is working in private air charter company called Euroflite by Wihuri Aviation. Euroflite is part of the Wihuri Aviation which is one of the oldest and experienced aviation and logistics-related aviation provider in the Nordics. Wihuri Aviation includes four main business area: private jet operations, group air charter, fixed base operations and logistics services. (Wihuri Aviation s.a.) Euroflite organizes private charter flights mainly focusing for group charters. It is specialized for group air charter services, and they are professionals in the industry when it comes to assisting corporations and organizations group travel requirements. Euroflite offers many different sized private aircraft types, and they work inside extensive network of contacts and collaborations. (Euroflite s.a.) Second interviewee is from Jetflite which is also part of the Wihuri Aviation group. They are operating globally based in Helsinki, Finland. Jetflite focuses more on offering exclusive and luxurious private jet flights with tailor-made experiences. They also have wide selection of aircraft fleet from smaller to larger jets to respond the demand. (Jetflite s.a.) These interviewees brought out perspective from the private aviation industry which has a big role in this research.

Other interviewees are senior lecturers from Haaga-Helia, Universtiy of applied sciences in Helsinki, Finland. Both interviewees have a strong background and knowledge from travel and aviation industry, and it brings an interesting contrast for the interviews. Interviewing specialists from the sectors is possible to get a different kind of perspective to examine the research problem. All interviewees have up-to-date knowledge of current changes and developments in the industry from different perspectives which brings opportunities to analyse results of the research.

4.3 Content analysis as a secondary research method

As a secondary research method is used content analysis table. It is a table form with different aspects to compare the visibility of the responsibility and sustainability of private aviation companies' websites and social media. Content analysis is a method of the qualitative research implementations, and it helps to create, for example, a summarized perception of the researched topic. It is used alongside the semi-structured interview method, giving additional information of the topic that is already given. As is characteristic for a qualitative research method, content analysis focuses on examining already existing information. (Vuori s.a.) It is important to find information that the research target group, private airline providers, are already offering for promoting responsible acts. And this information put together in the analysis matrix help to support results and conclusion of the research at the end of the research.

The main study problem is to research what factors affect the responsibility of private jet travel. This content analysis table (Table 3.) compares four different companies from the industry and how these companies are promoting their sustainability in their websites and social media pages. This table analysis matrix provides a structured framework of existing information and actions. Each column represents a private aviation provider, and it is structured with five different bigger aspects to examine a specific area in more detail. In the table each row epitomizes different aspects of analysing content. These aspects are website analysis, social media analysis, visual content analysis, tone and language about responsibility, cooperating organizations and external links. Last row is for conclusions for each company.

Table 3. Content analysis table

ASPECTS	COMPANY 1	COMPANY 2	COMPANY 3	COMPANY 4	~
WEBSITE ANALYSIS					
SOCIAL MEDIA ANALYSIS					
VISUAL CONTENT ANALYSIS					
TONE AND LANGUAGE					
ABOUT RESPONSIBILITY					
ORGANIZATIONS AND					
EXTERNAL LINKS					
CONLUSION					

Website analysis is the first aspect in the table, and it will show presence of sustainability related content in each companies' website. In this section is listed in what ways sustainability is promoted on the website and what are the statements for responsibility efforts. Second aspect, social media analysis, is analysing the number of posts related to sustainability and what types of posts is

posted about the topic. This aspect also analysis about the user comments, likes, shares and hashtags related to responsibility. Visual content analysis row shows a presence of eco-friendlier practises in visual form, such images of innovations, charts and tables of more sustainable options. Aspect, tone and language about responsibility, analysis in which way responsibility is talked about and, for example, what words is used to describe it. It will also analyse tone of voice, is the talk about sustainability how positive. For example, tone of messaging, that is it inspirational and informative. Last own analysis aspect is about analysing organizations and external links in websites and social media. In this row analysing focus on mainly in links to external organizations promoting sustainable actions and co-operational partnerships, different certifications and for example, citations of awards and recognitions related to responsibility. Conclusion row is for summarizing all the findings. In this section is also important to analyse some recommendations for improvements and areas that company could focus on.

5 Outcome of the research methods

In this chapter, is shown the issues that emerged from the research. The main goal for the research was to study the sustainability of luxury travel by private jet and what solutions could be identified for reducing the environmental impacts of this form of travel, and at the same time maintain benefits of luxury travel. The results of the interview material will be processed through three different subjects, which are relevant to the main study problem. These three subjects to distribute outcome from the interviews are the concept of the luxury and luxury travel, visions of the trends in private aviation and insights about challenges and opportunities of environmental solutions of private jets. Based on the research outcome, a SWOT analysis has been able to put together, which clarifies the risen research issues, and it also gives a better understanding of the main factors that drives the responsibility of the private air travel. SWOT analysis is presented in the following outcome chapter. In addition to outcome of the interviews, this chapter presents the results of the content analysis of the chosen private jet providers' website and social media.

5.1 Concept of the luxury and luxury travel

All interviewees had similar thoughts about the concept of the luxury. As stated in the database, the concept of luxury is relative and each person experiences luxury individually. As an example, direct quote from the interviewee from Euroflite says 'luxury means different things to different people'. In addition, the other senior lecturer also has a thought that coincided with the concept of different purposes of luxury. Luxury was described as something which is apart from everyday life that brings a feeling of well-being. When it comes to luxury travel, depending on the traveller, this feeling of luxury can be gained by experiencing something new that is not possible to experience in everyday life. Only the interviewee from Jetflite described luxury as a concept from a different sight from the other interviewees. According to this describe, luxury is seen as a percentage. Only certain amount of people with higher income has different level possibilities to achieve luxury, private jet traveling as a good example. Luxury is seen something that is possible for everyone but not everybody can achieve it.

The words that came up from the interviews for describing luxury were convenience, quality, freedom and time. According to sales manager from Euroflite, luxury can be described with two words, convenience and well-made product, that leads to quality. After the experience in the industry, luxury does not come up with anything fancy product or detail, but the most important thing is that everything is about being convenience when it comes to luxury travel. Private jets itself are not considered as luxurious, it is more a form for being able to go from place to another faster and saving time at the same time. For a certain group of luxury travellers in a small extent, luxury is a fancy experience or product, however for the most travellers it is all about comfort, and how well

the services are made for promoting being convenience. Also, senior lecturers' views are similar with time and freedom seen as a valued feature of luxury. These concepts can be easily combined with luxury travel by private jets. The interviews also revealed ultra-luxury traveller' appreciations which can be combined into the concept of freedom and time. This also came up with interviewee from Jetflite, luxury is seen their company in the context of time. Luxury travellers' opinions and wishes can change quickly so providers must be ready to implement services according to time.

Personalization was clearly emphasized in the interviews. It is also mirrored to a database where personalization is one the mots important trends in the luxury travel segment. Tailor-made and customised luxury trips are made after luxury travellers' wishes and that is one of the characteristics of the luxury. Considering customer's needs and wishes individually was also emphasized in the interviews.

All in all, the thoughts related to the concept of luxury were congruent with both the interviewees and theoretical framework of the research. Luxury is perceived as a subjective context that can not be defined in one shape, because it has different meaning depending on the person.

5.2 Visions of the trends in private aviation that lead to demand

This paragraph contains the trends that emerged from the interviews (Figure 6.) and are shaping private jet travel at the moment according to interviewees experiences. There were similarities to the trends that were discussed in the database about using private jet as part of luxury travel.



Figure 6. Interviews outcome of private aviation trends

One trend that came up with both interviewees from Euroflite and senior lecturer of tourism management from Haaga-Helia university of applied science, was privacy and phenomenon of posting social media following. Privacy is a big reason why many people choose private jets as traveling form, but nevertheless of that, the emerging phenomenon is to make it public through social media. The concept of the privacy defines the luxury travellers' experiences emphasizing on exclusivity, but simultaneously sharing content of this travel form on social media shapes the whole image of private air travel and how it is seen as a part of luxury.

From the interviews convenience and personalization also emerged in trends related to private jet travel, as well as in trends generally associated with luxury travel. This can be also seen in connection with the importance of time when it comes to private air travel. The concept that came up couple of times when talking about private air travel trends was readiness and how quickly service providers respond to requires. The interviewee from Jetflite also highlighted the respect for the luxury travellers' own schedules which leads to readiness when service is wanted with a quick notice. Answering the trend of readiness might also cause challenges. For example, after social media phenomenon trend, expectations of private aviation have changed when onboard experiences were used to not that demanding as they are now. Today's private aviation world all

the needs are wanted to have right away as fast as possible which lead to difficulties to keep up with demand.

Sustainability came up several times in the interviews, and more about this outcome is presented in the next subsection. Sustainability, and responsibility as part of that, is important current topic and it can also be reflected in the database, where it is presented as one the most important trends in the travel industry. A new concept also related to sustainability, empty legs, is described as one the most popular trends in private jet travel at the moment, says interviewee from Euroflite. It is called empty legs, when travellers have a change to book private jet for a much cheaper price when a particular jet is flying empty back to the designated destination. These empty legs jets are going back on that route anyway and by selling seats to these flights, rather than flying the jet empty, can be seen as utilization from different perspectives, for example as an act of sustainability. Empty legs trend can also be reflected with the database of this thesis. In the database is shown one of the trends in private aviation, minimizing costs, which can be combined with empty legs trend, when it is wanted to minimize costs. In this case, costs are minimized from the private jet traveller's point of view by having an expensive private jet flight at cheaper price, as well as from the provider's perspective when the costs of this particular flight have already been paid in advance. Also, the trend 'more first-time flyers' from the theoretical part (Figure 3.) is consistent with empty legs trend, as many of the empty legs travellers are first-time flyers who do not normally travel by using private jets.

All these trends are leading to the demand of flying by private jets. Both interviewees from private jet industry gave consistent answers regarding the demand of private jet travel. As stated in the database, the demand for private jet travel increased rapidly after Covid-19 and many high-end travellers switched from commercial flying have remained as permanent users of private jets. However, the demand after the high rise has clearly evened out.

5.3 Insights about challenges and opportunities of environmental solutions

Many interesting insights emerged from the interviews regarding the sustainability of private aviation. This is the most important outcome of all to go through regarding the main research problem, finding sustainable solutions for private aviation as part of luxury travel. Outcome related to questions about sustainability can be reflected in the database where is shown significant goals to promote sustainable aviation. In the chart of IATA's solutions (Figure 4.) sustainable aviation fuel (SAF) has the biggest part of 65% from all the solutions collected. Usage of sustainable fuel came up also in the interviews with each interviewee. Sustainable aviation fuel is seen as the most likely and most important solution to promote sustainability and, the interviewees from Euroflite and Jetflite says that they have already implemented it in small quantities. The use of SAF has a lot of

potential, but so far, its usage is low due to a low demand. According to interviewees, using SAF during the private flight is optional and for each customer is offered the option of buying it for their flight, however the price of sustainable aviation fuel is currently up to three times more expensive than jet fuel. Sustainable aviation fuel's benefits lack of marketing causes low demand and the high price following of that. Many private jet flyers are also suspicious of buying the SAF because they are not sure of its' safety.

As an outcome from the interviews, the second most effective way to promote sustainability so far, is various carbon offsetting programs which can also be seen in the database. Many private jet providers cooperate with different organizations focusing on responsibility to which private jet travellers can compensate the emissions of their flights. According to the interviewee from Euroflite, one solution for compensating emissions as part of responsibility is all the humanitarian flights for responsible reasons, in addition to all the glamorous luxury travel, which usually comes first in the mind when thinking about private aviation.

The development of new technology and, for example, electric planes and hydrogen powered engines are still seen as a very distant solution. However, in the database its' share is seen by having bigger part of the solutions for promoting sustainability and permanent solutions can be achieved with technology. Regarding the electric aircrafts, the rapid development of electrical air taxis was also highlighted, which can make it possible to speed up short distances by flying. The questions arose as how far in the future the everyday use of technological solutions is. The senior lecturer from aviation business also gave a good perspective on how the operational efficiencies mentioned in the database can be seen in practice. The planning of the flight routes and flight altitudes has a significant impact on flight emissions. By optimizing these factors, it is possible to influence how much the certain flight consumes, for example, the higher the plane flies, the lower is the fuel consumption.

5.4 Content analysis: Sustainable content in private jet companies' online presence

This chapter examines the patterns of sustainability related content that appears from the public websites of the private jet companies under the research. Content analysis (Table 4.) is seen below. Content analysis matrix was divided in five different aspects: website analysis, social media analysis, visual content analysis, tone and language about the responsibility and organisations and external links that appears in websites. The main goal of this analysis method was to find out the current sustainability related content of four different private jet providers' online websites and social media pages, and how it is reflected in their communicating. Four private jet providers under the analysis were Euroflite and Jetflite, who are part of the Wihuri Aviation group, Fly Victor and Net Jets.

Table 4. Sustainability related content analysis

ASPECTS	EUROFLITE	JETFLITE	FLY VICTOR	NET JETS
WEBSITE ANALYSIS	1. Corporate responsibility: general info about goals for sustainability in private aviation field 2. Follows emission levels annually, optimize flight planning procedures to minimize fuel consumption 3. Emergency and humanitarian response example as act of responsibility	SAF 2.Brought up challenges regarding sustainability followed by solutions 3.Corporate responsibility: general info	2Victor X Neste 3Science based targets 4.Climate action 5Sustainable Aviation Fuel 5.Carbon offsetting	1. Our programs & aircrafts -> sustainability 2. A multi-tiered program to address sustainability 3. Driving awareness 4. Sustainable aviation fuel (SAF) 5. Blue Skies carbon offset program 6. Corporate responsibility 7. Electric tug
SOCIAL MEDIA ANALYSIS	New in instagram, no sustanability/responsibility related posts or hashtags More active in Linkedin-> multiple posts about humanitarian help=>responsibility			No sustainable related Instagram or Linkedin posts
	1.Picture of green background with tree on website (Corporate responsibility)	1.Visual image of green flight routes from the hub	Visualisation thourg green themed images 2. Step by step figure to show journey with SAF, video of the production 3. Figure with scopes of emission 4. Investment map with carbon offsetting impacts 5. Press coverage with links to interviews and videos	1.Plane and flying related pictures
TONE AND LANGUAGE ABOUT RESPONSIBILITY	1.Informative tone of messaging	1.Tone of messaging very informative and inspiring 2.Clearly structured challenges followed by results	consumptions	1.Proud tone of messaging about their sustainable actions and programs 2.Informative about commitments and goals 3.Clear information about the actions
ORGANIZATIONS AND EXTERNAL LINKS	1.Humanitarian partnerships	2.Humanitarian partnerships	LPartnership with Neste for SAF 2.External links to press coverage -> videos and interviews about sustainability	1. Blue Skies carbon offset program 2. Partnerships with multiple philanthropic organizations (e.g. cancer/illness support, animal cruelty, humanitarian support etc.) 3. Net Jets Scholarship program 4. Best of the Best in Aviation 2021 by Robb Report
CONLUSION	>highlight sustainability related paragraph in the front page >informative posts to social media	>information about offsetting programs, using them? >informative posts to social media	website very informative >more informative posts to social media	>highlight sustainability related paragraph in to the front page >informative posts to social media very good co-operational work with philanthropic organizations

With Euroflite, Jetflite and Net Jets, sustainability related content was behind other headlines and clicks. For example, from Net Jets front page have to go first find out information about their programs and aircrafts, and behind that headline there is a sub-title about sustainability. So, sustainability related information is not seen in the first look of website. Presence of sustainability related content is not that visible with these three providers, Euroflite, Jetflite and Nets Jets, and it is more under research to find more information. While Fly Victor brings out the topic visible right on the front page and attract attention. The frequency of sustainability and responsibility related topics are in a good situation with Fly Victor. From the front page under the 'Fly sustainability' several sub-headlines will open for a more detail look of their actions towards sustainability illustrated with different charts.

Missions towards sustainability are similar with all providers. Usage of sustainable aviation fuel (SAF) is highlighted and consistently presented on their websites. Additional of using sustainable aviation fuel, carbon offsetting programs are second highlighted missions towards sustainability. Especially Net Jets and Fly Victor are bringing up importance of carbon offsetting programs which give a chance for compensating the emissions of flying. Euroflite and Jetflite are focusing on more about the corporate responsibility in general rather than informing specific sustainability initiatives. Although, there are mentioned that more information is available upon request.

Summarisation between analysing companies' social media pages is quite narrow. Informative related to actions or messaging about sustainability in their social media channels is a minor subject from all the posts. Especially in Instagram accounts, the posts related to sustainability is not appearing. Fly Victor is only one from these providers, on whose Instagram account has published posts related to sustainability, posts about usage of sustainable aviation fuel and Net Zero goal. However, in LinkedIn all of these providers are more active, except Net Jets. Euroflite and Jetflite has multiple posts related to responsibility by informing humanitarian actions and services. In Fly Victor's LinkedIn the sustainable content is more focusing on usage of sustainable aviation fuel, while Net Jets social media channels do not contain sustainability related posts.

When it comes to assessing is the sustainability integrated into broader narratives into the private jets provider's identity or if it appears more as a separate concept, there are differences between the companies. In contrast, Fly Victor stands out with sustainability being part of the company's whole identity. Compared to the other providers under the analysis, Fly Victor's sustainability related messaging on the website after first look brings out its' importance more widely, when others it is appearing more as a separate concepts and actions. However, the tone of messaging is informative in positive way with all these four private jet providers. There are slight differences with their messaging that is used for conveying sustainability. With Jetflite and Fly Victor information is structured more clearly, for example Fly Victor use a lot of visualisations for helping to get a clearer picture of the topic, and Jetflite is informing challenges and actions followed by results which makes it more understandable. Net Jets' tone of messaging in addition for its informativeness, is exuding pride about their missions for making efforts toward sustainability. Their actions are more versatile from using SAF, offering offset programs for having partnerships with many different organizations that drive the promotion of responsibility.

In the states of sustainability related content, there are differences between these four private jet providers. Overall, these analyses are promising and there are shown efforts for making actions toward more sustainable way of flying privately. These findings highlight also potential areas to improve their content for messaging sustainable missions more versatile. Usage of sustainable aviation fuel was repeated practice with all providers, however overall state of sustainability effort is average and there are chance for improvement in the diversification of sustainability related content. As a conclusion for this content analysis the biggest development targets are in social media awareness and informing more diverse content in their online websites.

6 Discussion

First under the review are the conclusions about luxury travel as a concept and trends related to it. It can be stated that concepts that have a big part of luxury travel are personalization of the travel wholeness with all parts of services following by privacy and tailor-made itineraries. Trends related to luxury travel and its' concept are seen better presented in the chapter 2.2.3, where the most important concepts are personalization, privacy, sustainability and prioritizing well-being. Luxury travellers place in a high value on their own privacy, and concepts mentioned previously can be mirrored directly into luxury travel by private jets. Luxury travellers who travel by using mainly private jets value time, and that is one the decisive factors which came up and drives the decisions regarding traveling. There are many similarities between luxury travel trends and trends shaping the private aviation. Trends emerging in private jet travel are presented in the chapter 3.1, and of these the main trends are movement towards sustainability, minimizing costs, sustainable aviation fuel (SAF) and the increase of first-time flyers. Private jet travel has its aspects that attract luxury travellers from different levels.

In the luxury travel market overall luxury consumers can be divided for two types of luxury travellers, namely rich regular luxury travellers and for less affluent luxury travellers who make 'once-in-a-lifetime' trips. These luxury trip consumers can be taken into closer analysis and in the chapter 2.2.2 is introduced different luxury traveller tribes according to their behaviour. From these tribes, travellers that use private jet for traveling can be concentrated into four emerging tribes. The main features are the small section of travellers who always use private jets and luxury is part of their everyday life, those who combine business and traveling, travellers who are wealthy, but lack of time is reflected for choosing private jets, and those who seek glamor through social media. The age range of these luxury traveller tribes varies, but clear main target groups of the private jet users can be seen. In the age range, two dominant generation can be seen, the baby boomers and the millennials. Baby boomers' generation present more traditional so-called old money and they have all time to travel, while among the millennials, younger new rich travellers are rapidly entering the luxury market. These generations and money behaviours can be seen in the private jet market.

The demand for private jet travel is driven by many different factors that shape the development of the industry moving forward with current trends. The high rise in demand during the Covid19 - pandemic, led to various health and safety measures that made private jet travel an attractive option for the luxury travellers. Many travellers who switched from commercial flying to private jets during the pandemic have remained as regular private jet users because of its' ease, time savviness and privacy. However, today there can be seen a levelling off in the post-pandemic demand, although the demand for private jet travel is still very high. Service providers currently in

the field have challenges of keeping up with the demand and changes in the industry towards more sustainable traveling. Important roles that shape the operations is to understand changing trends and respond to customers' needs quickly, to make the service personalized for each customer as individuals and catch the developments regarding sustainability.

Regarding the sub question that what kind of different perspectives of sustainability and responsibility are related in the luxury travel and in detail, private aviation industry, it can be stated that biggest perspectives are minimizing environmental impacts and meeting evolving customer expectations.

Private aviation sector has all the opportunities to develop operations towards more sustainable aviation world and it has been possible to assemble a SWOT analysis of all the challenges and opportunities that surrounds the industry.

6.1 Factors affecting sustainability of private aviation

Main subject of the research was to find solutions about factors that affect sustainability of private aviation as part of luxury travel. With sub question 'what practical solutions exist in relation to promote responsibility of the private jet travel', were able to have a good starting point for the research when obtaining and comparing the existing solutions with the research results. Main existing practical solutions to promote sustainability in private aviation are including usage of sustainable aviation fuels, collaboration with offset programs, changing newer eco-efficient aircrafts, optimizing flight routes for fuel efficiency and promoting positive imago by increasing awareness and encouraging luxury travelers to make more sustainable choices regarding their private jet travel.

Sustainable operations in private aviation can be effectively examined with the SWOT analysis method, which is compiled from the concepts that emerged in the database and in the research implementing phases. This analysis brings together the internal factors, strengths and weaknesses affecting in private jet travel, as well as external factors, opportunities and threats that drive towards more sustainable aviation (Figure 7.).

STRENGTHS	WEAKNESS	
SMALL MARGIN IN AVIATION USAGE OF SUSTAINABLE AVIATION FUEL NEW ECO-EFFICIENT FLEET WEALTHY CLIENTELE UTILIZATION PROMOTING SUSTAINABILITY EFFICIENT OF ROUTE PLANNING	 HIGH COSTS LOW DEMAND LIMITED AVAILABILITY OF SAF CUSTOMER RESISTANCE CAUSED BY LACK OF KNOWLEDGE RELUTANCE OF PRIORITIZING SUSTAINABILITY LIMITED AWARENESS 	
OPPORTUNITIES	THREATS	
DEVELOPMENT OF AIRCRAFT TECHNOLOGY MORE EFFICIENT ELECTRIC AND HYDROGEN PLANES INNOVATIONS HIGHER DEMAND FOR SUSTAINABLE TRAVEL OFFSETTING PROGRAMS	BRAND IMAGE LEGISLATION AND REGULATIONS THE CHALLENGES OF PUBLIC PERCEPTION	

Figure 7. SWOT analysis of the research results

Usage of sustainable aviation fuel (SAF) is counted as one strength, but it also followed by a few weaknesses. As in chapter 3.3 is presented, SAF has been found in the industry to be one of the key solutions to reduce aviation's carbon emissions. Small marginal of private aviation is listed as one strength because of its' adoption of faster development opportunities compared to commercial aviation. Because SAF's price is still a lot higher than jet fuels', as is stated in the chapter 3.3, private aviation's wealthy clientele is one big strength. They have assets to purchase it. By utilizing sustainable aviation fuel, efficient route planning and more eco-efficient aircrafts, private aviation sector has good strengths to promote sustainable solutions.

As stated in the chapter 3.3, high cost of sustainable aviation fuel is currently one big weakness in the industry. This was also a challenge that came up in the interviews. The high price is still affected by its' low production, which is caused by low demand. Travellers are not yet enough aware of SAF's safety as the use is very little. Because of lack of awareness, demand is also low for now.

External opportunities are developments of aircrafts' technology to become more efficient, for example, by developing jet engines more efficient planes can fly a longer distance with less consumption. Electric aircrafts and planes powered by hydrogen are seen as an opportunity for the industry. However, many doubts arose when talking about these options. Interviewees do not consider electric planes to be a very likely alternative, although electric planes' production has already started. Electric aircrafts can be seen in short range flights as air taxis. But in longer distance flights their use is highly unlike. Instead, planes powered by hydrogen are seen more likely an option in the future. So far, carbon offsetting programs are currently an effective external opportunity that can compensate emissions for the certain cooperation organizations.

External threats are also compiled in the research. Aviation's negative brand image regarding the environment impact is one these threats. In the beginning of chapter 3 is also stated, that the aviation industry faces a lot of criticism for its environmental impact which makes it important to develop industry towards sustainability. Aviation is influenced a lot with different level regulations and legislation. However, the lack of regulations is seen as one threat. A comment emerged from the interviews that public regulation has a little effect on, for example, use for SAF. With small changes in regulations its usage could be rise step at the time.

It can be stated that flying by private jet as part of luxury travel has a lot of potential to develop this travel form in a more sustainable direction.

6.2 Proposals for promoting sustainable solutions' challenges

The aviation industry is a subject to a many different regulations, but the proposal is to increase the regulations regarding sustainable aviation fuel (SAF). For now, regulations do not apply to the use of SAF in aircrafts, so by regulating it, the usage of sustainable aviation fuel could be increased. However, various regulations to support sustainable development initiatives require a lot of strategic cooperation with international aviation stakeholders.

Although the development of electric air taxis is already at a fast pace, as it was founded from the interview, instead of focusing on bringing electric aircrafts to the industry, it would be more profitable for aviation industry to focus on more environmentally friendly fuel options and their effective implementation. Therefore, rapid technical development is needed in aircraft design and alternative fuels.

As the research present, luxury travellers' interest in more responsible travel is still low and, for example, using SAF for their journeys is a big challenge. Travellers are not yet aware of its safety, so by measuring customer's reactions towards sustainable actions, interaction between the service provider and the customer it can be developed. By measuring consumer behaviour, private

aviation providers can develop their own communication about the responsible alternatives and market these more. As seen in chapter 5.4, in service providers websites they do inform about different sustainable solutions, but many of them have a lack of concrete communication, why the customer should choose, for example, SAF for their flight. Most of the service providers are aware of the low demand from customers towards more sustainable actions, so as a provider they have a place for development to make customers understand its importance. By increasing demand, SAF's expensive cost can be lowered so that production is more efficient to match with demand.

6.3 Reliability of the research

When reviewing reliability of the research several different factors must be considered. The reliability of qualitative research can be evaluated by using the typical concepts of validity and reliability. Tuomi and Sarajärvi (2011, 135-139.) highlight different concepts that can be used to examine the reliability of the qualitative research. For example, credibility, confirmability, impartiality, certainty and validity are important concepts for helping to analyse reliability of the qualitative research. (Tuomi & Sarajärvi 2011, 135-139.)

Focusing on validity is one of the most important parts when examining the reliability of the research. Validity is about whether the research is valid, has it been done thoroughly, following the structure of the study from background research to the research method itself, and are the results and conclusions drawn correctly considering all factors. Validity can be divided in external and construct validity, which refines the examination of competence, and at the same time brings more perspectives to the assessment of the reliability of the study. (Yin 2014, 45-46.) External validity shows whether the results of the research can be generalized to other contexts and situations outside of the original study. This is how results can be broken down as to whether they are relevant for the theoretical concepts or principal concepts. Then again construct validity focus the extent to in which way study method accurately assesses what it's supposed to research. (Yin 2014, 237-238.)

For enhancing the validity and reliability of the research, following measures were taken in the account with different phases of this research implementation. For example, the structure of the interviews was designed to follow predetermined themes followed by theme related questions that guided the course of the interview. Interview questions were sent to the interviewees before conducting the interview, so that each interviewee had the opportunity to familiarize themselves with the questions in advance. This way the reliability of the interview results could be confirmed, because the interviewee had the best opportunity to prepare answers in advance. All the interviews were recorded, and transcriptions were gathered, which strengthens reliability and validity when data collection is easily retrievable if re-evaluation is needed. Also, when analysing research

results, the verbatim expressions of the interviewees have been used, which can be used for mirroring the results to the existing information. This is one way to strengthen the reliability of the study.

When the research problem and the interpreted material are compatible, research implemented by using a qualitative research method can be considered reliable. The sufficiency of the material and the comprehensiveness of the analysis must be considered when examining the reliability of the research. The size of the material can be difficult to estimate beforehand in qualitative research and its' primary function is to assist the researcher for creating a conceptual picture of the phenomenon under the study. One option to find material size sufficient is to consider about its' saturation. This appears when the new data collections, in this case interviews, no longer produce new information in terms of the research problem. (Eskola & Suoranta 2014, 61-62.)

Regarding this research, the amount of the collected data can be considered sufficient, even for the interviewees the amount is relatively small. Instead of amount of the interviewees it was emphasized quality, which was evident in this study in the case of interviewees' knowledgeable and professional background. And because the goal of the collected material is to understand phenomenon under the research, it was indented to get interviewees from the same sector but different positions in order to get different perspectives.

When evaluating the reliability of qualitative research, the perspective of impartiality is also important to be considered. Because the interviewees are part of the researched sector, it is even more important to emphasize the importance of the impartiality when evaluating the reliability. (Tuomi & Sarajärvi 2011, 139.) When making conclusions of the research results by using both study methods, results from interviews and content analysis were supporting each other, which makes the results more reliable.

In addition, in this study was used the content analysis as a secondary qualitative research method, which brings credibility to more perspectives for investigating the matter. By examining the current practises for advancing the research problem, more reliability is gained in comparing the results with existing knowledge. When looking at impartiality, the secondary research method, website content analysis, also brings more reliability in this point. By comparing the results of the content analysis table with the results of the interviews, their similarities and differences can be seen and analysed.

6.4 Own reflection

Implementing this project has been truly rewarding experience with all its' stages. There has been challenges during the project and I implemented whole thesis with a relatively quick schedule.

Doing this project has required a lot of dedication, time, determination and above these, a lot of background researching since the topic was quite unfamiliar before starting the project. Phases of the thesis went approximately according to thesis plan, but implementation part was the biggest challenge of this project. Even I completed the entire project quite quick schedule, it kept me in a good rhythm for staying aware of different phases and moving forward with own insights. Writing the theory part was educational, although this phase took a lot of time in the beginning but in the end, it is also one of the most important parts for the success of the project. From the start I got many possible interviewees for the research phase, but it turned out to be a challenge to get in contact with candidates in the industry despite having a common recommender who knows people in the field. This is why number of interviewees remained small. However, it was very rewarding to complete this research from the beginning to finish by having to think all the different stages carefully and thoughtfully for staying in the line with topic. The interview part was very educational, and it was interesting to hear from the people in the industry their sights on the researched topic. However, it was little bit challenging to keep the content of the interviews in line because the semi-structured interview format allowed a freer discussion around the topic.

Chosen topic for the thesis was very interesting and I feel that this topic is also very topical because of the demand for private travel as a part of luxury travel. The development of sustainability in aviation business is important and I feel that private jets have an advantage of being first in implementing functions in the aviation industry. A lot of different materials were found for the subject, however this topic has not been researched that much yet. This is one reason, why completing database was not an easy part. I found a lot of articles and reports about the topic, but it was a challenge to assemble a compatible entity from separate sources. Sustainability of aviation has been studied more widely, but not that much research focused on private air travel. This is why I truly believe that this research for the thesis topic is useful for the private jet providers and also for luxury travel companies, whose customers are mainly using private jets as a form of travel. I am looking forward of following, how aviation industry will develop towards sustainability and how quickly these developments are going to take a place.

All in all, thesis and its content turned out to be a success and I am satisfied in the final result. This thesis can be seen as a preliminary study for promoting sustainability of private jets as a part of luxury travel. This entity has not been studied as a wholeness in the industry, and it is not yet a very big topic among the luxury travellers and the service providers in the field. Possible threats and challenges are good to take into account, but they must not limit developments too much. It is important to be optimistic about the more sustainable future also in the aviation industry and be brave enough to start making actions. The sustainability of aviation is not easy, and that is why it is important to start doing actions for promoting it. As a result of this thesis, I have a strong

knowledge of the subject, and with interest towards the whole industry and topic, I will definitely follow the changes and developments in the field in the future. And why not possibly be a part of developing these implements in the future.

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Appendices

Appendix 1. Interview questions

Luxury travel and luxury as a concept

- 1. How do you describe luxury?
- 2. How does luxury appear in your company's operations/in your main job?
- 3. What key elements/trends do you think are emerging in luxury travel at the moment?
- 4. How do you think luxury travel has changed over the years?

(Ultra) Luxury travelers

- 5. Describe your main customer group/luxury traveler.
- 6. What kind of wishes do your customers/ luxury travelers have regarding private air travel?

Private air travel as part of luxury travel

- 7. What are the trends in private air travel in your company that are emerging at the moment?
- 8. How do you see the share of private air travel as part of luxury travel in the future?

Sustainability/Responsibility

- 9. In what way your company's customers/luxury travelers are aware of sustainability and does it affect their choices in any way?
- 10. In your opinion, which factors emerge when considering the responsibility of private air travel?
- 11. What kind of air travel-related measures does your company use to promote sustainability? And how does public regulation affect these activities in relation to sustainability?
- 12. How do you think private air travel/private planes should be developed in a more responsible direction, if we think about it from the perspective of technology and demand?