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Finding the Airline's Sweet Spot: Matching Travelers' Expectations and Experiences

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AFFIDAVIT

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ABSTRACT

As the tourism market is forecast to grow and the airline industry is expected to develop further, serving more destinations and passengers, competition among airlines is also expected to grow. Airlines will have to find new ways to attract customers and how to retain those customers. Thus the research questions "How can airlines successfully design the sweet spot that facilitates successful experiences and subsequently leads to loyal passengers?" will play a significant role in how airlines can differentiate. Many current research papers and journals available focus heavily on aspects such as loyalty, satisfaction according to price models, other specific aspects such as technology or sustainability; however, there is a lack of research into airline experience designs. The research question is answered using a quantitative study among leisure travelers that have flown to any destination in the past 2 years. This quantitative study is based on the literature review, which shows that several aspects such as price, reliability, safety, image, crew, and technology are important and can influence the satisfaction among airline passengers. The outcome of the study shows that there is indeed a gap between what passengers find important and attractive versus current satisfaction, and this study shows how this gap can be decreased by focusing on seat comfort and in-flight services mainly, boosting the airline experience design and improving satisfaction and loyalty. The sweet spot of airline experience design is visible, giving way for airlines to improve and retain customers.

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I would like to start by saying that this research paper would not have come to be what it is without the tremendous help of Lidija Lalicic, my supervisor and inspirational source for writing an incredible thesis. Thanks to her help and support, this thesis has become a credible source for research on service and quality management, consumer behavior in the tourism industry, and airline experience design.

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May we, MSc. class of 2019, always stay positive and helpful towards each other and ourselves.

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LIST OF ABBREVIATIONS

Abbreviation	Explanation
BXi	Brand Experience Index
CAWI	Computer-Assisted Web Interviewing
FFP	Frequent Flyer Program
IATA	International Air Transport Association
OTP	On-Time Performance
SSI	Sawtooth Software, Inc.
USD	United States Dollar
UX	User Experience Design
WTP	Willingness-To-Pay

1. INTRODUCTION

1.1 Background

The number of airplanes is predicted to double in the next 20 years, resulting in 47.990 airplanes (Calder, 2018), and the number of tourists is predicted to increase from 1186 million tourists in 2015 to 1.4 billion tourists in 2020 and 1.8 billion tourists after 2030 (Kester, 2016). From January to April of 2018 alone, an increase of 6% in international tourist arrivals was recorded compared to 2017 according to the United Nations World Tourism Organization (2018) and International Air Transport Association (2017a). This trend is an important factor when considering the future of the tourism industry. According to the International Air Transport Association (2018), several other significant trends are expected to be observed in the next two decades. Consumers will benefit increasingly from destinations becoming more accessible in the near future and the stabilization of flight and ticket prices (International Air Transport Association, 2018). Another such factor is the rise of third world economies; China and India are now on spots number 1 and 3 worldwide when it comes to GDP-PPP (Investopedia, 2016). Such numbers demonstrate that there are more and more potential passengers to be targeted by airlines.

Significant changes can also be observed within the airline industry. For example, after the insolvency of Air Berlin in 2017, Wizz Air and Level, both low-cost carriers, opened their doors in Vienna (Spero, 2018). Since August 2015, 62 new start-up airlines have opened their doors; Europe is leading with 21 new airlines whereas Latin America and the Asia-Pacific region both saw 13 new airlines opening their doors (European Commission, 2017, p. 89). That means, in around two years' time, 62 new airlines started operating and trying to convince passengers to fly with their airlines by offering innovative services and products.

The rise and development of this segment demonstrates the high numbers of options tourists and travelers have at their disposal, implying that the competitiveness among airlines is increasing.

Thus, airlines are seeking new ways to improve their customer satisfaction and most importantly, customer retention. However, according to an American-based study by Clarke & Kinghorn of PricewaterhouseCoopers, PwC, (2018, p. 8) airlines show a gap of 33 percent between the level of satisfaction and level of expected service. Customers rate customer experience as being of 70 percent importance in their purchasing decision; however, the same customers rate airlines' current customer experience as 37% satisfactory in today's industry.

Research in the field of service show that customers are willing to pay extra for certain customer experiences. According to Clarke & Kinghorn (2018, p. 6), these services include efficiency, friendly service, convenience, easy payment, and others. The famous study by Zeithaml, Berry & Parasuraman (1993, p. 1) shows that the discrepancy between consumers' expectations and their experiences needs to be thoroughly understood in order to create high levels of satisfaction and eventually loyalty. From an innovation and design perspective, such knowledge is also important to effectively advance product and service development (Goldenberg, Horowitz, Levav & Mazursky, 2003, pp. 3-4). Given the rapidly changing trends in the field of tourism and travel, this concept requires new attention.

Furthermore, the importance of research in this field of airline experience design stems from the fact that a striking 268 airlines have become defunct since 2007 (Smith, 2018). Airlines have to differentiate themselves on completely different levels and the traditional consumer behavior of 50 years ago is not the same as nowadays. *"Survey after survey shows that cost and safety, along with timeliness, are what really matters to consumers most. Thanks to improvements in those areas, passenger satisfaction has reached all-time highs"* (Kiesnoski, 2017). Even though satisfaction is increasing, airlines can stand out in certain ways. J.D. Power (2015) shows in its annual North America airline satisfaction study that airlines can stand out heavily from the rest; Alaska Airlines and Delta Air Lines score above average, whereas United Airlines is far from the number one spot. The recent debacle with United Airlines 'throwing' a passenger off an overbooked flight, or the fact that a dog was lifted in the overhead bins, set the airline back in satisfaction (Lazare, 2018; Reed, 2018).

Satisfaction is one of the factors improving loyalty (Chandrashekaran, Rotte, Tax & Grewal, 2007, p. 2; Zephan 2018, p. 13; Woodcock, Stone & Foss, 2003, p. 11-20) and is influenced by many different factors. Research shows that cultural aspects are one of the drivers of satisfaction (Peattie & Moutinho, 2000, pp. 5-6), and that technology can increase an individual's satisfaction of airlines (Peattie & Moutinho, 2000, p. 9; International Air Transport Association, 2017b; Baskas, 2018). Furthermore, satisfaction is also influenced by reliability, punctuality, the schedule of an airline, the crew, comfort, company image, experiences, and of course price (Alamdari, 1999, pp. 204-206).

All these aspects are part of customer design thinking, and can improve consumer behavior. *"Results show that over the last 10 years design-led companies have maintained signifi-*

cant stock market advantage, outperforming the S&P by an extraordinary 228%" (Westcott, 2014).

Consumer behavior can be measured in every industry and can be used as an indicator for satisfaction and loyalty. Consumer behavior research can also be applied to many different processes of an airline, such as the decision of which airline to fly with, the airline's website or social media channels, or the loyalty program and additional offers and options available with airlines. Consumer behavior can be measured via different channels as well. Social media and customer service channels can be scanned to see how customers reply, write, or talk about the airline, and loyalty program data can be used to check for patterns.

Given the growing importance of experience design due to the emergence of technology, companies cannot neglect this any longer. According to Norman and Nielsen (n.d.) experience design *"... encompasses all aspects of the end-user's interaction with the company, its services, and its products"* (Norman & Nielsen, n.d.). User experience comprises many things and spans from the moment a customer sees a product in the store or on a website, to using this product at home.

Experience design, also called user experience design (UX), is visible in many companies in many different areas, and this applies to airlines as well. For example, airlines focusing on low prices will try to convince customers to purchase additional options, such as more leg space or a hotel room and taxi, whereas more luxurious airlines such as Emirates and KLM focus much more on customer service and quality. Hence, we can see that experience design is everywhere and can be combined with a 'customer journey', which describes all touch points a customer has with the company. The airline experience design ranges from the website and social media accounts to the meals served on board and luggage return at arrival.

Research available focuses mainly on separate aspects rather than the airline as a holistic experience. While previous research has demonstrated the role of specific factors that influence parts of an airline, an in-depth understanding of how airlines could create effective experiences that matter for customers is missing. There is hardly any research that critically discusses the so called 'sweet spot' of airline experiences from a customer perspective. Referring back to the aforementioned discussion, airlines are forced to apply customer-centered thinking when it comes to designing airlines experiences. Therefore, this thesis will take this perspective in order to develop the so-called sweet spot for airlines. Will travelers continue travelling with

airlines that try to cut costs on every single aspect, or will travelers change their perception of what an ideal airline is?

1.2 Research Focus and Objectives

With the differences between low-cost carriers and full-service airlines becoming larger and with the airline industry becoming more competitive, there is a need for differentiation among airlines. This differentiation could strongly depend on how an airline creates its own airline experience design, or the airline experience design sweet spot.

Airline experience design, and especially a sweet spot, can help an airline stand out from the competition. This is what this thesis aims to achieve; to find out what airline passengers expect and experience, and what could boost the overall satisfaction of an airline experience by focusing on a holistic user experience design approach. More specifically, this thesis aims to understand how airlines can design experiences according to customers' preferred expectations and experiences, and tries to find the 'sweet spot' of airline experience designs. In particular, the thesis is interested in which items are perceived as most important for a satisfactory airline experience nowadays. This research does that by focusing on two pillars: (I) service and quality management, and (II) consumer behavior. Service and quality management are two incredibly important factors for airlines as this is what makes an airline stand out. Bad service and quality is quickly picked on by passengers, and airlines that do not stand out are quickly disregarded by passengers. This does not mean that the aforementioned 268 airlines went out of business because of bad quality and service, but both factors can make an airline stand out. It also does not depend on whether an airline is low cost or not; Southwest Airlines has been profitable ever since the company had its first profitable year (Southwest Airline Co., 2018), and Emirates celebrated its 30th consecutive year of being profitable (Tan, 2018).

Thus this research paper does not look at individual factors of an airline but rather the airline experience from a holistic perspective. Research by Alamdari (1999), Wong & Musa (2011), and Chen, Chang & Lin (2012) focus on single aspects such as the entertainment system, loyalty, loyalty clubs or loyalty systems, perception of branding and satisfaction of price models, and the perception of sustainability at an airline. This thesis combines these elements and has the following objectives:

1. To identify factors of airline experiences, and passengers' experiences and expectations

2. To assess the most important factors for overall airline experience
3. To explore what passengers are willing to pay extra for in order to experience their preferred airline experience
4. To formulate recommendations on airline experience designs, the so called 'sweet-spot'

From a managerial perspective, this research differs from other research as it will show whether the current trends in the airline industry are in line with what the passenger expects, wants, and needs. Questions such as, 'would you be willing to pay extra for...' or 'which services and qualities do you think make an airline stand out/more attractive over other airlines...' will be examined in this thesis as well.

This means that the benefits of this research include airlines being able to use the outcomes to understand whether there are gaps in their own passengers' experiences and expectations, and how airlines can live up to those wishes by improving their own services and offers. Furthermore, airlines will have the possibility to see what passengers are interested in and what services passengers are willing to pay extra, or additionally, for. Thus, and more importantly, this research shows where there is room for improvement for current airline experience designs.

The next chapter will give an overview of what the current research has covered. It will give a detailed overview of what current research in service and quality management entails, and it will show how consumer behavior can be measured and what current trends are in the airline industry and with service and quality management.

1.3 Thesis Structure

This master thesis research is set up to get a better understanding of what the sweet spot of airline experience designs is. This research paper takes the reader through the background of the research and how the research came to what it is, what the current research focuses on, and how this research can be beneficial to future research. This is followed by the literature review supporting the research paper, after which the methodology explains how the research is set up and executed. The data is then analyzed, and several models are used to describe the outcome of the research. The final part is a conclusion and includes recommendations for further research in the field of airline experience design.

1.4 Outline Structure

Chapter 1 Introduction

This chapter looks at why this research came to be designed as it is, and it provides the reader with a background on the gap between passengers' expectations and experiences of airline services. The chapter gives the outline for what will be investigated and it also goes into detail regarding how the study could be of use to future airlines in terms of experience design.

Chapter 2 Literature Review

The literature review chapter discusses how airline service and quality management serve as the standard for what passengers expect and currently perceive, whereas the consumer behavior part discusses how passengers choose airlines and what improves decision making. Taken together, the chapter lays out the variables that improve satisfaction among passengers and lists the variables in blocks, in an organized way.

Chapter 3 Research Methods

The research methods chapter goes into detail discussing the survey design and shows how the study was carried out. It shows how the 200 leisure travelers were targeted and it shows what limitations or complications come with the design. These are however tackled by the right strategy and right question types and in addition, a pre-test was conducted with 30 participants to find out whether there are any uncertainties or unclear questions in the survey.

Chapter 4 Results and Discussion

The results and discussion chapter shows the main outcome of the research, and it clearly shows in which areas airlines are currently lacking. This is the so-called gap between experiences and expectations. The outcome shows some interesting and surprising facts, which are visualized in three matrices that show the sweet spot of airline experience design. Furthermore, multiple regression analyses were conducted to find correlations between different factors.

Chapter 5 Conclusion

The conclusion is the final chapter of the research paper, answering the three objectives set at the start of the research. These answers are the basis of the recommendations that show how airlines can improve their airline experience design. Furthermore, this chapter also lays out what this study has done for current knowledge and research, where after it is followed by a self-reflection, in which the author looks back at the process of creating this research paper.

Chapter 6 References

The final part of this research paper is the reference list, showing which research papers and sources were used for writing the introduction, literature review, methodology section, and other chapters.

2. LITERATURE REVIEW

The literature review for this research is based on two pillars that are applicable to the airline industry at any point along the customer journey. These two pillars are service and quality management, and consumer behavior. The literature aims to point out which factors are the most important for an optimal airline experience and this influenced the choice of which variables were taken into consideration for this research.

2.1 Service and Quality Management

Research in service and quality management predominantly uses one research instrument, namely the SERVQUAL questionnaire developed by Zeithaml, Berry & Parasuraman in 1988. This model is used to measure quality in the service sector (Strawderman & Koubek, 2008, p.454). It is applicable to the airline industry, as airlines offer passengers a service; namely being transported by an airplane in the most convenient manner.

The SERVQUAL model, as developed by Zeithaml et al. (1988, p. 12), assesses the customer's perception of service quality in organizations focusing on service and retail. *"The scale that is the focus of this article, involves perceived quality. Perceived quality is the consumer's judgment about an entity's overall excellence or superiority"* (Zeithaml, 1987, cited by Zeithaml et al. 1988, p. 15). Furthermore, Zeithaml et al. (1988, p. 15) state that the perceived quality judgment is a form of attitude, resulting from the difference between consumers' expectations and perceptions of performance. This difference between the perceived and expected performance of services can be investigated with the Gap Model of Service Quality and this gap is described first and foremost in Gap 5 of the model (Zeithaml, Berry & Parasuraman, 1985, p. 44). As this research focuses on perceived and expected experiences of passengers, gap 5 of the Gap model of Service Quality will be investigated and literature will be presented based on these models, and specifically research on the different aspects of airline service and quality.

As seen in figure 1, Gap 5 shows the difference between expected service and perceived service. Expected service is influenced by several factors: word-of-mouth communications, personal needs, past experiences, and external communications to customers (Shahin, 2006, p. 3). The latter also influences perceived service, together with service delivery, both by the provider (Shahin, 2006, p. 3).

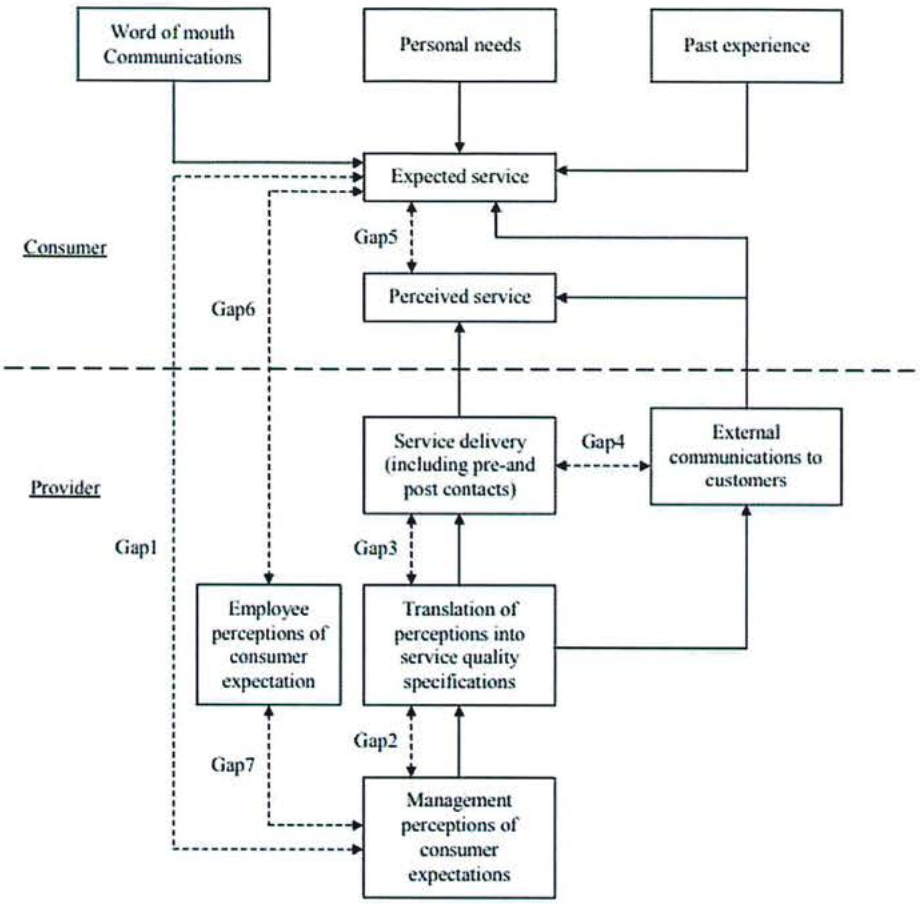

Figure 1. Gap Model of Service Quality showing gaps between provider and consumer of services. Data from Zeithaml et al. (1985, cited by Shahin, 2006, p. 3).

To understand the model in detail, general research on service quality management will be analyzed, before analyzing perceived expectations and experiences of airlines.

2.1.1 General

Zeithaml et al. were pioneers in the fields of service and quality management. Zeithaml et al. (1993, p. 1) incorporated customer expectations into their research as the *"pretrial beliefs about a product that serve as standards or reference points against which product performance is judged"*. When it comes to evaluating satisfaction or quality, customer experiences are often used (Zeithaml et al., 1993, p. 1) as well as customer expectations, desires and wants, and they play a key role in the evaluation of service quality (Zeithaml et al., 1993, p. 2). A gap between the two indicates that customers felt that the provided service quality was not up to a certain desired standard.

As stated before, the Gap Model of Service Quality devised by Zeithaml et al. focuses on several gaps where one gap is between the expected service and perceived service. The expected service, as shown before, is based on word-of-mouth communications, personal needs, past experiences, and external communications to customers. Zeithaml et al. (1993, p. 5) elaborate on this model by showing the expected service perception is also based on explicit and implicit service promises as well as transitory service intensifiers, perceived service alternatives, self-perceived service role, and situational factors, besides word-of-mouth and past experiences stated earlier. Zeithaml et al. (1993)'s research shows that the fifth gap, the gap between expected service and perceived service, is broadened by those factors.

Expected service, according to Zeithaml et al. (1993, p. 6) is what customers hope to receive and it is what companies and service providers should have as a standard, whereas desired service is seen as what a customer believes he or she should receive. One particularly interesting outcome of the focus groups held by Zeithaml et al. (1993, p. 6) is that price increases do not drive customer expectations. However, when customers have to pay for services up front, their expectations of that service are higher than of those who did not pay up front. This might have an impact on airlines as well, as tickets and additional services are bought up front.

The SERVQUAL model is used to analyze the gap between expected and perceived service. The SERVQUAL model consists of 22 items evaluating a consumer's perception of experienced and expected services on a scale of 1 to 7, where 7 is defined as strong agreement (Zeithaml et al, 1988, pp. 38-40). The instrument and its 22 items are adapted to a company or service. These questions can serve as a basis for understanding expected and experienced services for airlines.

2.1.2 Airlines and service quality

In the airline industry, expected services and desired services play a certain role in deciding which airline to go for. As shown in figure 2 (Clarke & Kinghorn, 2018, p. 8), there is a huge gap when it comes to the experience and expectations of airlines, namely 33 percent, larger than in any other industry measured. This gap needs attention and the following part of the literature review focuses on the airline industry in particular, showcasing the findings of current research about expected services among passengers, and what variables and factors this thesis will take into consideration.

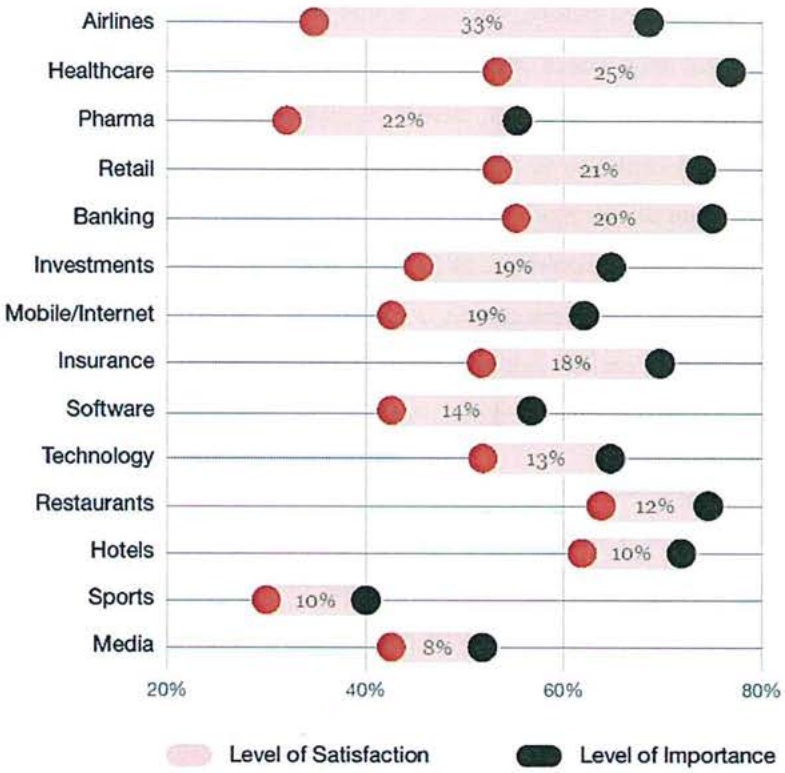

Figure 2. The experience and expectation gap. Data from Clarke & Kinghorn (2018).

With the rise of low-cost business models, which started with the US based Southwest Airlines (Topham, 2019) and progressively made their way into Europe, price has become a major factor for passengers. However, this does not withhold passengers from having certain experiences and expectations when choosing airlines. *"Levels of expectation are why two organizations in the same business can offer far different levels of service and still keep customers happy"* (Zeithaml et al., 1993, p. 1). This is very apparent when comparing airlines such as Emirates, Malaysian Airlines, Singapore Airlines, and Lufthansa to EasyJet, Air Asia, Wizz Air, and Ryanair.

A study by Aydin & Yildirim (2012) shows how the SERVQUAL model can be applied to airlines, and investigates whether there *"is a significant difference between the passengers' service quality expectations and service quality perceptions in different airline firms"* (Aydin & Yildirim, 2012, p. 219), especially with domestic Turkish airlines including Turkish Air Lines, Onur Air, Atlasjet (now AtlasGlobal), Pegasus air, and SunExpress (Aydin & Yildirim, 2012, p. 222). The study focuses on tangibles, reliability, responsiveness, assurance, and empathy by applying terms applicable to airlines: modern-looking equipment, time management, error-free

records, and others (Aydin & Yildirim, 2012, pp. 221-222). The results show that there are significant differences between the perceptions and experiences of those airlines mentioned before, with the biggest differences found among tangibles, reliability, responsiveness, and assurance for other domestic airlines besides Turkish Air Lines (Aydin & Yildirim, 2012, pp. 226-227). For Turkish Air Lines, safety was the most important factor among the respondents whereas for the other airlines, this was price (Aydin & Yildirim, 2012, p. 228).

Another study by Zhu (2016) measuring the airline service quality performance of Air China and Hainan Airline, states that *"reliability is the airlines' ability to perform the promised service accurately and properly whereas empathy refers to the caring, detailed, and individualized attention that airlines deliver to their customers"* (Zhu, 2016, p. 8). Furthermore, other factors influencing passenger satisfaction were cabin comfort, in-flight amenities, attitudes of ground and flight crew, and on-time performance (Tsantoulis & Palmer, 2008, cited by Zhu, 2016, p. 8). The outcome of the study shows that for Air China, the biggest gaps between importance and performance can be found with in-flight amenities, value for airfare, friendliness of crew service, and freshness of meals (Zhu, 2016, p. 18) whereas for Hainan Airline this is the case for availability of on-ground staff, ease of reservation and ticketing, the frequent flyer program (FFP), and friendliness of crew service (Zhu, 2016, p. 22). This means that for Air China, responsiveness and reliability are ranked highest on performance, and for Hainan Airline this is reliability and empathy (Zhu, 2016, p. 15). For Air China, ease of reservation/ticketing, on-time performance, and baggage handling service were ranked highest on reliability, whereas for Hainan Airline the most important factors are baggage handling service, convenience of flight schedule, and on-time management (Zhu, 2016, p. 16). Looking at what was ranked as most important, for Air China and Hainan Airlines this is safety records, the second most important factor is convenience of flight schedule for Air China and on-time performance for Hainan Airline (Zhu, 2016, p. 20). It can be concluded that safety is of major importance to passengers when it comes to expectations.

"The efforts of measuring service quality within the sector have become increasingly important to achieve and maintain a competitive advantage by creating consumer satisfaction" (Basfirinci & Mitra, 2014, p. 239). Basfirinci & Mitra (2014) investigated how satisfaction is influenced by airline service quality in a cross-cultural context and found out that for the SERVQUAL model, expectations were higher than experiences across cultures; in this case examining the United States and Turkey (Basfirinci & Mitra, 2014, p. 247). Results show that in the United

States, tangibles show the smallest difference between expectations and experiences, but the largest differences where expectations are higher than experiences can be found in the areas of responsibility, handling of delayed flights, handling of lost luggage, and willingness of crew to help out passengers (Basfirinci & Mitra, 2014, p. 244). The study also analyzes the results based on a Kano model showing that several factors are seen as must-have points for airlines; these are modern and proper aircrafts, flight safety, baggage handling, and safety in transactions (Basfirinci & Mitra, 2014, pp. 245-246). Furthermore, the study also shows that the handling of delayed flights, on time performance on services in general, the crew's willingness to help, and an acceptable flight schedule are all factors that can make an airline more attractive and would attract more satisfied passengers (Basfirinci & Mitra, 2014, pp. 245-246; Kano, Seraku, Takahaski, & Tsuji, 1984).

Research by Suhartanto & Noor (2012) shows that on a scale of 1 to 5 (with 5 being the highest), passengers flying full service airlines are overall more satisfied with empathy, reliability, responsibility, assurance, price, customer satisfaction, and tangible aspects than customers flying low-cost carriers. *"Because of the differences in their strategy and target market, full service airlines are better able to satisfy its consumers compared to low cost airlines"* (Suhartanto & Noor, 2012, p. 7). However, the best perceived performance variables for full service airlines are assurance and responsibility (Suhartanto & Noor, 2012, p. 5). Assurance and responsibility are defined as the knowledge and skills of the crew, and their helpfulness towards customers (Zeithaml et al., 1988, p. 23). For low cost carriers, the best perceived item is price (Suhartanto & Noor, 2012, p. 5). This research shows there is a difference among low cost carriers and full service airlines, but it also shows that these two airline types attract different customer segments. Whereas the low cost carriers try to attract customers of low socioeconomic status, full service airlines attract medium to higher socioeconomic status customers (Suhartanto & Noor, 2012, p. 6).

Hussain, Al Nasser & Hussain (2014) investigated an United Arab Emirates airline based on the SERVQUAL method and concluded that corporate image has a significant impact on customer expectations, perceived values, and customer satisfaction, whereas service quality has a direct impact on customer expectations, perceived values and customer satisfaction (Hussain et al., 2015, pp. 173-174). The study continues by saying:

"When customers receive good quality service, they perceive it as good value and are happy to pay a considerable price because high quality leads to superior perceived value. More-

over, providing superior service quality is a strategic tool for customer satisfaction. Therefore, the airline should make sure that they provide superior quality service by considering the six dimensions – reliability, responsiveness, assurance, tangibles, security and safety, and communications – identified in the current research, in order to enhance customer satisfaction" (Hussain et al., 2015, pp. 174).

This shows that four of the original SERVQUAL items are rated as important for measuring service quality.

A study done by Wong & Musa (2011) on satisfaction with Malaysia Airlines, a full service airline, and Air Asia, a low-cost carrier, shows that there is a gap between the expectation and the perception of both airlines. There is a small difference in mean values for expectation and perception between the two carriers, however, the research shows that passengers are less satisfied with the full service airline, Malaysia Airlines, compared to the low-cost carrier Air Asia (Wong & Musa, 2011, p. 3411). The gap between perceptions and expectations for Malaysian Airlines is larger than for Air Asia (Wong & Musa, 2011, p. 3411). This research also shows that passengers are less satisfied with Air Asia's price model even though the carrier is a low-cost one (Wong & Musa, 2011, p. 3411). The research gives a nice overview of what kind of gap can exist between a full service airlines and a low-lost airline. Overall, research by Wong & Musa (2011, p. 3412) shows that between tangibles, price, core services, reputation, publicity, word-of-mouth, and employees, customers' expectations are higher than what passengers actually perceive when using airline services. Interestingly, the smallest differences for both airlines can be found with publicity and word-of-mouth, whereas employees, price, and core services for Malaysia Airlines show the biggest gap between expectations and perceptions (Wong & Musa, 2011, p. 3411).

Another factor influencing service and quality management among airlines is safety and risk handling. Research by Ringle, Sarstedt & Zimmermann (2011, p. 469) shows that leisure (pleasure) travelers' satisfaction is significantly influenced by safety aspects, more so than with business travelers, where interestingly enough safety does not play such an important role in contributing to satisfaction. According to Ringle et al. (2011, p. 469) safety has always been seen as a factor that does not improve satisfaction among travelers, it can only worsen it. However, the research shows that *"safety does positively influence the satisfaction of passengers traveling for reasons of pleasure"* (Ringle et al., 2011, p. 469). Furthermore, the study shows that safety not only positively influences satisfaction among leisure travelers, it also shows that

satisfaction positively influences loyalty for both leisure travelers and business travelers. *"Safety considerations are known to be of utmost importance to passengers when choosing an airline"* (Gilbert & Wong, 2003; Atalik & Özel, 2007, cited by Ringle et al., 2011, p. 469). In addition, ground, flight, and capability of airlines significantly influence leisure traveler satisfaction (Ringle et al., 2011, p. 468). Among ground, flight, and capability, are efficiency of check-in, boarding, personnel at check-in, comfort, attentiveness and friendliness, in-flight entertainment, punctuality, connections, and customer service offers (Ringle et al., 2011, p. 463).

Looking at research by Tsantoulis & Palmer (2008), as cited in a paper by Curtis, Rhoades & Waguespack (2012, p. 3), primary service quality dimensions such as airline schedules and prices are followed by secondary dimensions that include comfort, safety, in-flight amenities (e.g. food and beverages, in-flight entertainment system), flight crew attitude, financial stability, on-time performance, and luggage delivery. This is backed by other research done by Condé Nast and Frequent Flyer; both groups identified ten factors that drive overall airline satisfaction, namely:

"on-time performance, airport check-in, schedule/flight accommodations, seating comfort, gate location, aircraft interior, flight attendants, post-flight services, food service, and frequent flyer programs" (Glab, 1998, cited by Curtis et al., 2012, p. 3).

Curtis et al. (2012, p. 12) go further by describing reliability, assurance, tangibles, empathy, and responsiveness as five service quality dimensions. Reliability is seen as the *"airline's ability to perform the promised service dependably and accurately"*, assurance is *"the airline's employees' knowledge and courtesy and their ability to convey trust and confidence"*, *"appearance of the airline's ground facilities, aircraft, personnel and communication materials"* are the tangibles, *"the caring, individualized attention the airline provides its customers"* is the empathy dimension, and the responsiveness dimension is seen as *"the airline's willingness to help customers and provide prompt service"* (Pham, 2006, cited by Curtis et al., 2012, p. 12). The research by Curtis et al. (2012, p. 18) also shows that the expected availability of upgrades, and the importance of legroom and comfortable seats also increases as more passengers fly.

Looking at the literature, we see that certain factors stand out as a must-have for expected service. Besides price, we see that scheduling and on-time performance are important, but so are personal services by the crew and airline employees, comfort, interior, in-flight services such as food, in-flight entertainment systems, and frequent flyer programs, and post-

flight services. Reliability, assurance and empathy play a major role in the level of satisfaction among airline passengers. Furthermore, research (Toh & Hu, 1988; Chin, 2002) also shows that airline schedules, on-time performance, prices, overall service, network coverage, waiting, boarding, and flight time, as well as seat availability, are all factors that influence how passengers choose airlines (Toh & Hu, 1988; Chin, 2002, cited by Hossain, Kibria & Farhana, 2017, p. 372). Hossain et al. (2017, p. 363) continue by saying that frequent flyer programs help the airline business grow and that such programs provide special service to enhance the passenger's experience. However, the study by Hossain et al. (2017, p. 363) also states that frequent flyer programs are not the main driver of customer satisfaction or consumer behavior, and that other factors mentioned previously have a higher impact on passengers' decision of which airline to choose, especially price and timing factors (Hossain et al. 2017, p. 373).

Research by Pakdil & Aydin (2007) investigates travelers' expectations, perceptions, and overall assessment of a Turkish airline. One interesting outcome of the study shows that 25 percent of respondents say price was the most important reason for choosing the airline, second only to past experience with 56 percent (Pakdil & Aydin, 2007, p. 231). "*Customers evaluate the quality of service by determining whether there is any gap between their expectations and perceptions*" (Pakdil & Aydin, 2007, p. 230). Pakdil & Aydin (2007, p. 236) continue by stating that none of the perceptions fully met the expectations of airline passengers. The most important factor shaping passenger perceptions and expectations is responsiveness (Pakdil & Aydin, 2007, p. 236). Furthermore, tangibles, reliability and assurance, and flight patterns also show large gaps between perceptions and expectations (Pakdil & Aydin, 2007, p. 235). But the study also found that image and availability are new dimensions supporting passenger needs (Pakdil & Aydin, 2007, p. 236).

Another research paper, written by Jeeradist, Thawesaengskulthai & Sangsuwan (2016, p. 131), focuses on how passenger perceptions can be improved by the impact of airline image, service quality, and safety. The research shows that airline safety regulations, initiated due to bad weather conditions, did not live up to passenger expectations and should be supported with additional services (Jeeradist et al., 2016, p. 138). The study goes on to say that "*improving safety control and serviceability in the airline industry is extremely important for successful airline management. In additional, airline image conformance is related to airline safety control and service quality*" (Jeeradist et al., 2016, p. 131). This shows that safety and service quality are important to passengers when it comes to selecting airlines, and therefore a focus on the

two is necessary to improve retention rates of passengers. *"The profitability of airlines is influenced by passenger satisfaction which results in loyalty and repeat product purchase"* (Jeeradist et al., 2016, p. 131).

Another study focusing on service quality improvement is a paper written by Tsafarakis, Kokotas & Pantouvakis (2018). Tsafarakis et al. (2018, pp. 71-72) show that value for money, flight and web services, after landing services, after landing effectiveness, schedule, and airport proximity are all important factors to a customer's service and quality perception. *"The most important criterion for passengers seems to be After landing services, which shows that passengers want to disembark and receive their luggage on time, in order to leave the airport as soon as possible"* (Tsafarakis et al., 2018, pp. 68-69).

To investigate how airline service and quality is ranked among top airlines, Skytrax is used as a benchmark to analyze top airlines and see how these airlines stand out from the competition. Airlines have the opportunity to be marked as a 5-star airline on Skytrax's list but before becoming a 5-star airline, airlines are graded based on many different aspects concerning all operational processes.

> *"A 5-Star Airline rating recognizes very high standards of both Airport and Onboard Product provided by an airline to their customers, together with consistent and high standards of front-line staff service across the airport and onboard service environments. This Quality rating is regarded as a benchmark of global excellence"* (Skytrax, 2018a).

Some of the airlines that obtained a 5-star rating are ANA All Nippon Airways, Etihad Airways, EVA Air, Singapore Airlines, and Lufthansa (Skytrax, 2018a). These airlines stand out in qualitative excellence and rank among the highest in first class, business class, and economy class on long and short haul flights (Skytrax, 2018b). More specifically, for an airline to become a 5-star airline, airlines have to put a lot of emphasis on airport and onboard products, and focus on staff and cabin service (Skytrax, 2018c).

For example, Singapore Airlines is one of the top airlines in the world and one of the few airlines with a 5 star Skytrax rating that also scores 5 stars on comfort items, seat comfort, and complimentary beverages, whereas other items, such as in-flight entertainment and selection and quality of food and meals, score 4 stars or higher (Skytrax, 2018b). Looking at Lufthansa, another 5 star airline, some of the highest rated items are speed and timing of ser-

vices, attention to cabin safety, language skills, service, and service skills (Skytrax, 2018i). The questionnaire set up by Skytrax, looking to find out which airlines are the best in the world, bases its questions on experiences and asks about topics such as the airline's website, the check-in and boarding processes, onboard the airplane, and arrival and transfer (Skytrax, 2018h). However, as the items are graded on perceived quality and not expected quality, this research will focus on finding out whether some of those items are also expected among leisure travelers.

Looking at how quality improves satisfaction and therefore influences customer loyalty (Ahrholdt, Gudergan & Ringle, 2019, p. 18-27), one research tool, the Brand Experience Index (BXi) by Rufus Leonard shows how *"people's direct experience of a brand has a significant impact on customer loyalty"* (B&T Magazine, 2016). The outcome of this research shows that every 10 BXi points, which are based on future purchase preferences and the likelihood of recommending the product, service, or company to others, boost the Net Promoter Score by double digits (B&T Magazine, 2016; Leonard, 2018). The Net Promoter Score *"measures customer experience and predicts business growth"* (Satmetrix Systems, Inc., 2017), and improving the Net Promoter Score can boost a company's growth rate significantly (Reichheld, 2018). The outcome of Leonard's (2018) research shows that with each BXi point, Ryanair could improve its business value by 75 million British pounds.

With a higher NPS, customers tend to be more loyal to a company. As loyal customers spend more money and are on average likelier to share information about the company, companies are interested in increasing their number of loyal customers. According to the Adobe Digital Index report (2012, p. 5), repeat purchasers, customers that are more loyal than regular shoppers, purchase more on average and have a higher revenue per visit (11.54 euros for repeat customers versus 1.75 euros among shoppers in Europe). The NPS, according to Satmetrix Systems, Inc. (2014, pp. 9-12), also implies that the higher customers score on the NPS model, the more these customers make positive referrals to other people. Figures in the telecom sector demonstrate that 639 USD is made per promoter and .559 customers are acquired per promoter, whereas with detractors, 1.275 customers are lost, resulting in 1.459 USD lost per detractor referral (Satmetrix Systems, Inc., 2014, p. 12).

The findings in the literature review about service and quality management go hand in hand with a recent study done by Brochado, Rita, Oliveira & Oliveria (2019) focusing on passengers' perceptions of service quality among online reviews. Brochado et al. (2019, p. 862)

conclude that flights, seats, services, staff, airlines, entertainment, and flying are spoken about most, among other topics. Results show that for flights, price but especially time-management and delay handling were mentioned often, whereas with seats, services, and staff people mostly discussed comfort, leg room, on-time flights, food, beverages, in-flight entertainment, amenities, friendliness, and helpfulness (Brochado et al., 2019, pp. 862-863). Furthermore, passengers discussed service and how they were treated when it comes to exceptional perception of service; *"I had a great experience as always by Garuda Indonesia. [. . .] They always know how to service their customer like a KING"* (Brochado et al., 2019, p. 863). For entertainment, passengers were mostly satisfied with in-flight entertainment via the TV screens, and with meals, beverages, and amenities, passengers were happy to receive free headphones, coloring books for kids, hygiene kits, traditional food, and wine all included in the price (Brochado et al., 2019, pp. 863-864). The outcome of the study also shows that the topics discussed increased passenger satisfaction and that dissatisfaction came from luggage handling, delays, and airline errors (Brochado et al., 2019, pp. 862-866).

To conclude, Zeithaml et al. detail how perceived quality is a consumer's judgment about a product or service's overall excellence (Zeithaml, 1987, cited by Zeithaml et al. 1988, p. 15), and show how expected services are influenced by factors such as word-of-mouth communication, personal needs, past experiences, company communication and promises, and service alternatives (Zeithaml et al., 1993, p.5). Interesting findings of the literature review in service and quality management show that several factors are key when it comes to service and quality management with airlines. The fact that there is a gap between the expectations and experiences of airline service is shown in research by Clarke & Kinghorn (2018), whereas Wong & Musa (2011) go further by stating that the gap is larger among full service airlines than low-cost carriers.

Aydin & Yildirim (2012) state that tangibles, reliability, responsiveness, assurance, and empathy are key factors for the perception of airline quality. The researchers also show that there is a significant difference between the perceptions and experiences of passengers when looking at the aforementioned factors (Aydin & Yildirim, 2012, p. 226-227). The factors of tangibles, reliability, responsiveness, assurance, and empathy are found in other research papers as well; Zhu (2016, pp. 15-16) explains how responsiveness and reliability are important when it comes to experiences among Air China and Hainan Airline travelers, showing that baggage handling, on-time performance, and convenience of flight schedule are important factors influ-

encing perception. Basfirinci & Mitra (2014, pp. 244-246) show how tangibles and responsibilities are of key importance to airline travelers; handling of delayed flights, handling of lost luggage, willingness of crew to help out, flight safety, and safety in transactions are all important when it comes to the perception of quality and service. Looking at studies by Suhartanto & Noor (2012) and Hussain et al. (2015) we see again that assurance, responsibility, tangibles, reliability, and responsiveness are factors that influence passengers' expectations and experiences of airline service and quality management. Research also shows that variables such as safety, risk handling, boarding, in-flight entertainment, punctuality, flight network, schedules, pricing, flight crew attitudes, and baggage handling are all important factors that influence passenger satisfaction (Ringle et al., 2011, pp. 463-469; Tsantoulis & Palmer, 2008; Glab, 1998, cited by Curtis et al., 2012, p. 3).

An interesting finding by Pakdil & Aydin (2007, p. 231) shows that previous experiences with airlines are the main factor when choosing the next flight. This shows that when airlines focus more on the gaps between expectations and experiences, passengers will become more satisfied and subsequently choose the same airline again. This fuels this research by showing how significant the outcome could be for airlines; the sweet spot of airline experience design could in time lead to better service and quality of airlines and it could result in higher market shares. Another interesting finding is the one by Tsafarakis et al. (2018, pp. 68-69), saying that the after-landing services, luggage handling and flight disembarking are of high importance so that passengers can leave the airport as soon as possible.

To see how the factors of quality and service management influence shopping behavior of passengers and increase customer satisfaction, consumer behavior is analyzed in the airline industry. These findings of the service and quality management literature review can be found in table 1 and table 2 along with the findings regarding the consumer behavior aspect.

2.2 Consumer Behavior

Consumer behavior can be applied to many different processes of an airline, including the decision of which airline to fly with, the usage of airline websites or social media channels, or the loyalty programs and additional offers and options available with airlines. Consumer behavior can be measured via different channels as well. Social media and customer service channels can be scanned to see how customers reply, write, or talk about the airline, and loyalty program data can be used to check patterns. However, for research, company data is often not publicly available. Thus consumer behavior is measured via an online questionnaire. This litera-

ture review investigates how passengers select certain airlines for their flights and it looks at what variables are important to passengers when it comes to satisfaction and loyalty.

2.2.1 General

Consumer behavior is, according to Sheth & Kellstadt (2014, p. 1) *"the mental and physical activities undertaken by household and business consumers that result in decisions and actions to pay for, purchase, and use products and services"*. To understand consumer behavior, companies have to recognize the value of consumers and by tailoring them to the customers' wants and needs, a company can enhance its products or services (Sheth & Kellstadt, 2014, p. 2).

"Tourism products are largely services. Marketing theorists have attempted to define services in relation to their intangibility and the fact that purchase of a service never results in the ownership of anything" (Horner & Swarbrooke, 2007, p. 70). Horner & Swarbrooke (2007, p. 70) state that intangibility, inseparability, heterogeneity, and lack of ownership all influence how tourism services are different from products and in turn influence consumer behavior. Services are intangible as the consumer cannot touch or feel what they are going to get, they are inseparable since production, performance, and consumption are perceived as one and the same, they are heterogeneous because the level of service is not constant, and there is a lack of ownership because consumers do not get to own the service after usage. Since consumers cannot try the tourism service before purchase, they take more time to decide which service to go for (Horner & Swarbrooke, 2007, p. 72). The advice for choosing a service could come from word-of-mouth by close relatives, friends, or by advertisement and marketing from agents or television holiday programs (Horner & Swarbrooke, 2007, p. 72). But besides marketing, price has become a more important factor for consumers in the tourism sector as well; *"Consumer preferences were moving towards being more budget conscious"* (Horner & Swarbrooke, 2007, p. 162). Another factor influencing how consumers choose is branding. *"Brand names, logos or trademarks encourage consumers to buy products and services because they give them the benefits that they are seeking"* (Horner & Swarbrooke, 2007, p. 164). Among those benefits are familiarity with the product, safety, status, and self-esteem (Horner & Swarbrooke, 1996, cited by Horner & Swarbrooke, 2007, p. 164). Furthermore, Horner & Swarbrooke (2007, pp. 164-170) state that marketing communication, pricing, and sales channels also influence consumer behavior and that companies, such as airlines, should take a close look at their marketing mix or their four Ps to see how processes could influence consumers.

As proposed by Oke, Kamolshotiros, Popoola, Ajagbe & Olujobi (2015), consumer behavior can be seen as the process of the consumer ordering, buying, obtaining, and consuming products or services, and determines how certain choices for products come to be what they are (Schiffman & Kanuk, 2000; Blackwell, Miniard & Engel, 2001, cited by Oke et al., 2015, p. 44). The research also defines *"consumer behavior in an all-inclusive view as the activities and the processes in which people choose to buy or dispose of the products or services based on their experiences and ideas"* (Gabbott & Hogg, 1998; Blackwell et al., 2006, cited by Oke et al., 2015, p. 44), and states that consumer behavior can be linked to satisfaction on aspects such as price, product quality, service quality, corporate image and other factors (Fredericks & Salter, 1995, cited by Oke et al., 2015, p. 44).

The study by Oke et al. (2015) yields certain insights into how consumers select a certain tea brand. Oke et al. (2015, pp. 48-50)'s research concluded that brand awareness, brand association, brand loyalty, perceived quality, and repurchase behavior all influence the way in which consumers decide which brand to choose. Furthermore, Oke et al. (2015, p. 50) continue by stating that the factors influencing the purchasing behavior of consumers lead to an increase in consumer loyalty.

Research done by Li, Li & Hudson (2013, pp. 160-161) shows how online sources and especially social media are used to a significant degree by younger generations when it comes to seeking out travel information. Li et al. (2013, p. 161) also states that paid advertising has little influence on destination choices and evaluation, and that destinations have an influence on generations and which places these generations visit. Furthermore, the research states that:

"safety and security are important for all travelers, and it has been suggested that events in volatile nations like Syria, Egypt, Yemen and Lebanon are likely to have a negative domino effect on the Middle East, in particular for tourists from North America" (Williams & Ashill, 2011, cited by Li et al., 2013, p. 161).

This could result in certain airlines performing better than their competitors because of the destinations on offer. Thus, network, destination marketing, safety, and security could influence consumer behavior among airline passengers and airlines could influence consumer behavior by targeting destinations to certain passengers. To do so, airlines have to segment passengers.

One famous example of consumer behavior is given by Solomon, Bamossy, Askegaard & Hogg (2006), where consumer behavior is analyzed using segmentation. Solomon et al. (2006, p. 4) state that it is simply impossible to segment all customers into one group, as even though some psychological or sociological factors are similar, there can be cultural differences as well. Consumers act differently, there is no one way to serve all customers. *"Consumers within the segment are similar to one another in terms of product needs, and these needs are different from consumers in other segments"* (Solomon et al., 2006, p. 9). Thus, segmentation can change the way consumers interact with companies. This gives companies a competitive advantage when it comes to gaining consumer loyalty.

Safety and security can also be seen on a different level, namely with technology. Ukpabi & Karjaluoto (2016, p. 619) did research on how technology is perceived by travelers and what the important aspects are when it comes to booking online. One of the findings was that consumer attitude is influenced by several factors. These include security, navigation, functionality, information quality, and website design when it comes to online purchases (Kim, Kim & Shin, 2013; Chung, Lee, Lee & Koo, 2015; Wen, 2012, cited by Ukpabi & Karjaluoto, 2016, p. 626). Furthermore, source credibility, novelty, understandability, consumer feedback and reviews, and ease of use are also mentioned as important factors that influence consumer behavior and the online portals of tourism entities (Wong & Law, 2005; Kim, Ma & Kim, 2006; Ryan & Rao, 2008; Lee & Cranage, 2011; Kim, Lee, Lee & Song, 2012; Huang, Backman, Backman & Moore, 2013; Ku, 2011; Ayeh, Au & Law, 2013a b; Chen, Shang, & Li, 2014; Sparks & Browning, 2011; Chang, Chou, Yeh & Tseng, 2016, cited by Ukpabi & Karjaluoto, 2016, p. 626).

2.2.2 Airlines and consumer behavior

As detailed above, consumer behavior depends strongly on branding, marketing and communication, price, safety, security, and other factors. Thus, for passengers to decide which airline to choose, several factors come into play. However, research also shows that different factors such as credibility, culture, loyalty programs, or technology play a role in consumer behavior among airline passengers.

Before diving into all factors, one important aspect that should be considered is credibility. Airlines use branding and marketing to influence consumer behavior, as investigated by Jeng (2015), but one of the main influencers of conveying the message is credibility; *"brand credibility refers to the believability of product or service position information contained in a brand"* (Erdem & Swait, 2004, cited by Jeng, 2015, p. 1). Jeng (2015, p. 2) states that credibility

measures whether passengers perceive the brand, or airline in this case, to be believable, and that expertise and trustworthiness create this credibility (Erdem & Swait, 1998; Spry, Pappu & Cornwell, 2011, cited by Jeng, 2015, p. 2). Results of the study show that "*brand credibility contributes to consumer purchase intention through both signaling and relationship marketing mechanisms*" (Jeng, 2015, p. 5). An airline's credibility influences passengers' decision convenience and it also supports a passenger's commitment to a company (Jeng, 2015, p. 5).

With credibility comes safety, and safety, as described in the service and quality management literature review, is of key importance when it comes to airline passengers and satisfaction. "*Service failures and failed recovery attempts have prompted a public relations crisis for the airline industry*" (Shen, 2017, cited by Xu, Liu & Gursoy, 2018, p. 1). The report by Xu et al. (2018) describes how service failure and recovery efforts have an effect on passengers' emotions and satisfaction. The study describes how effective recovery actions can improve customer satisfaction and retention whereas not having an effective recovery, or no recovery at all, leads to a higher number of switching customers (Cai & Qu, 2017, cited by Xu et al. (2018, p. 3). The results of the study show that, except for future-trip compensation, all attributes of service failure and recovery influence what emotions a passenger holds (Xu et al., 2018, p. 12). The fact that passengers might not adopt a better perception of airlines when offered a future-trip compensation could be due to the fact that passengers have already lost trust in this airline (Xu et al., 2018, p. 12). Some factors that do enhance consumer emotions towards a brand positively are compensation such as complementary meals, priority boarding and seat upgrades for the current flight (Xu et al., 2018, p. 12). "*Findings indicated that causes, magnitude, and consequences of service failures influence customers' positive and negative consumption emotions*" (Xu et al., 2018, p. 15). This means that airlines should treat safety and handling of complaints and service failures as top priorities when it comes to enhancing customer satisfaction. Besides the study talking about safety, the report also suggests how passengers' emotions can improve or worsen because of served meals (Fensterstock, 2017, cited by Xu et al., 2018, p. 3).

But to focus on the results of different studies, consumers, or passengers in this case, have to be understood. One way to understand passengers is by looking at cultures. *"The cultural environment presents a challenge to tourism marketers in trying to assess how cultural trends are likely to influence the nature of the demand for their products"* (Peattie & Moutinho, 2000, p. 22). Peattie & Moutinho (2000, p. 21) point out that airlines invest money in training employees to understand culture, different languages, etiquette, body language, and social

systems. One can see cultured, sophisticated and well-trained staff as an indicator for satisfaction. The better staff is trained in recognizing cultures and understanding languages, the better passengers can be served. Peattie & Moutinho (2000, p. 42) state that perception and attitudes are two major influences on an individual's decision for traveling.

Ruiz-Mafe, Sanz-Blas, Hernandez-Ortega & Brethouwer (2013) did research on cultural aspects and stated that "*culture represents a set of shared values that influence social perceptions, attitudes, preferences and responses*" (Ruiz-Mafa et al., 2013, p. 11). The research was done on the intention of purchasing tickets online, but shows interesting results stating that purchasing intention was influenced by people's opinion, perceived control, and attitudes (Ruiz-Mafa et al., 2013, p. 14). As this study is based on the intention of purchasing tickets online, the influencing factors will be taken into consideration in terms of passengers deciding which airline to purchase tickets from.

Huang & Lu (2017) did research on consumer behavior among Chinese travelers and the Chinese tourist market and the results show that among the Chinese travelers, people favor word-of-mouth as information source (Huang & Lu, 2017, p. 10), and generations prefer different destinations, with younger generations choosing international destinations more often than older generations (Huang & Lu, 2017, p. 11). These findings are replicated in a study by Barukh (2018). Barukh (2018) investigated how Chinese travelers select airline services, and stated that consumer behavior is influenced by several factors, one of which are the opinions of others (Armstrong & Kotler, 2013, cited by Barukh, 2018, p. 16). Passengers selecting airlines are influenced by friends, relatives, and others close to them, but also by unexpected influencers such as shop owners or sales representatives (Kotler & Keller, 2016, cited by Barukh, 2018, p. 16). Furthermore, Barukh (2018, pp. 16-17) states that post-purchase consumer behavior is all about the experiences, and as written before, experiences influence future purchase intentions. Results by Barukh (2018, pp. 48-58) show that price, brand, and family are the most influential factors when it comes to deciding which airline to choose, whereas price, convenience of arrival and departure times, direct flights, feeling valued, and comfort influence the decision of which flight to choose. Looking at on-board services, in-flight entertainment, in-flight comfort, meals, and crew helpfulness are important factors for passengers when it comes to available service, and they influence consumer behavior and decision making (Barukh, 2018, pp. 54-55). Furthermore, Barukh's research (2018, pp. 57-58) shows that consumers are willing to pay

extra for in-flight comfort, better meal options, flexibility to change the ticket, and choosing airline seats.

Looking at the United States airline industry, Holland & Georghiades (n.d) investigate online consumer behavior in terms of searching and decision making among selected airlines. It is not so much the results that are of significance to this research, but it is the behavior of selecting the airline that stands out. The study shows that Southwest Airlines has a much larger online presence when it comes to online traffic (Holland & Georghiades, n.d, pp. 3-4) and this could indicate that price and previous experiences are major factors when it comes to selecting airlines. Southwest is known to be one of the best airlines in the United States because of their low prices, convenience, customer satisfaction, fleet size, and network (Bloom, 2018; Zhang, 2018), and flies around 10 million passengers per month (Hoopfer, 2018).

Chen, Li & Liu (2018) did research on repurchase intention, and how service quality influences this aspect among passengers. "*When consumers perceived the quality of service, this may result in influencing their behavior because of the positive awareness and image of the brand*" (Wu, Yeh & Hsiao 2011, cited by Chen et al., 2018, p. 1). A study by Chen (2008, cited by Chen et al., 2018, p. 2) shows that if passengers' desires and expectations are met, their intention of repurchase is also influenced. Chen et al. (2018, p. 7)'s research shows that service quality positively affects brand awareness whereas brand awareness relates positively to the perceived value of an airline. Ultimately, the study shows that the perceived value positively influences passengers' repurchasing intention; "*the results also suggested that brand awareness can simultaneously increase perceived value, consequently increasing repurchase intention*" (Chen et al., 2018, p. 10).

As explained in the service and quality management chapter, on-time performance is one of the major expectations of passengers. Yimga (2017) researched how on-time performance (OTP) influences consumer choice behavior:

"*airlines are generally known to compete on prices, however, flight on-time performance (OTP) has become a source of competitive advantage as passengers' expectations concerning on-time arrival/departure have increased in recent years*" (Yimga, 2017, p. 1).

Delays cost the airline money, however, not as much as it costs the passenger; in 2007, delay costs were up to 17 billion USD for passengers whereas, for the airlines, the cost was around half (Yimga, 2017, p. 2). Results show that with higher prices, consumers are less willing

to purchase the product or service (Yimga, 2017, p. 9). This demonstrates once again that price is one of the main factors for passengers. Furthermore, Yimga (2017, pp. 9-10) states that passengers are more willing to purchase from service providers that offer a larger flight network, that nonstop flights are more satisfying to passengers, and that passengers choose direct flights handled and managed by one airline over codesharing flights. Looking at On-Time Performance (OTP), Yimga (2017, pp. 10-11) concluded that passengers are negatively affected by flight delays; consumer behavior is negatively affected and passengers are willing to pay extra for having less arrival delay. The report continues by saying "*our findings from suggest that the ideal product for a typical passenger is one that is cheap, nonstop, not code-shared, not offered by an LCC and is likely to be on-time*" (Yimga, 2017, p. 10).

A different piece of research carried out by Suzuki (2000) focuses on the relationship between on-time performance and airline market share. Suzuki (2000, p. 140) states that the customer is likelier to change airlines when the most recent trip was delayed, resulting in missing a meeting or appointment or connecting flight, and goes on by saying that service that fails to meet expectations also results in passengers switching airlines. The results of the study show; "*that the switching rate of passengers who experienced flight delays is consistently higher than that of passengers who did not experience delays for all carriers*" (Suzuki, 2000, p. 150). Thus, on-time performance, along with consumer behavior, is one major factor when it comes to satisfaction and deciding which airline to choose.

Looking at additional services such as loyalty programs and in-flight entertainment, one way to increase loyalty among customers is a loyalty program, or Customer Relationship Management (CRM) program. Many companies and airlines implement this system and many customers make use of such programs. Regardless of whether a loyalty program is good or not, companies have a way to incentivize customers that consume with the company frequently with the hopes of increasing customer retention. The following literature examines those topics in detail.

Frequent flyer programs can be found among many airlines; Miles & More, Skywards, Flying Blue, and many others. According to Hossain et al. (2017, p. 363), frequent flyer programs can boost an airline's business by 20 to 35 percent and help airlines provide specialized services tailored to the needs of the passenger. However, the same research goes on to conclude that frequent flyer programs do not stand out when it comes to loyalty. Most frequent flyer programs are similar to one another and are not very effective if they are only seen as a

point accrual program (O'Malley, 1998, cited by Hossain et al., 2017, p. 373). Contradicting Hossain et al.'s findings, Dolnicar, Grabler, Grün, & Kulnig (2009, p. 1025) state that *"Loyalty programs are strongly associated with behavioural loyalty for business travellers and for frequent travellers, but not for casual and leisure travellers"* and continue by emphasizing the fact that other studies do show significant results when looking at the effect of frequent flyer programs. However, the effect is closely linked to how often passengers travel with the airline and this shows that passengers travelling more often see a greater benefit and thus effect of a loyalty program than non-frequent flyers (Dowling & Uncles, 1997, cited by Dolnicar et al., 2009, p. 1025). Again, mentioned in the same research is the fact that nationality and price are also two main factors of influencing behavioral loyalty, and that leisure travelers are influenced heavily by prices (Dolnicar et al., 2009, p. 1025).

Another factor influencing customer satisfaction and therefore loyalty is technology. Technology is relevant across the entire customer journey of airlines, from booking tickets to in-flight systems and reviewing the airline online.

"It will be increasingly important for airlines, hotels, surface transport providers, restaurants and communication firms to stay linked via reservation systems, in order to provide the quality of service demanded by the increasingly sophisticated and demanding traveller" (Peattie & Moutinho, 2000, p. 28).

According to the International Air Transport Association (2017b), 10.675 surveyed passengers from around the world stated what their wishes and preferences were, and three out of five responses were about technology. However, only two of these are in the hands of the airline. Airlines cannot change the automation of airport processes, but airlines can however influence how passengers check in and use certain facilities, e.g. by offering biometric identification. Passengers' final concern was real-time information sent directly to a passenger's mobile phone or other device.

A study by Agag & El-Masry (2017) focuses on how online travel websites can build trust for consumers to use the website:

"seven factors are proposed for building consumer trust toward online travel websites: consumer experience, propensity to trust, reputation, perceived size, ease of use, perceived usefulness, and website quality" (Agag & El-Masry, 2017, p. 359).

This shows that for technology and an airline's website, experience, reputation, quality, and ease of use are important when it comes to purchasing online tickets. Airlines can perhaps stand out from competition if websites are managed well and according to what passengers want. These factors are taken into consideration for the research.

Another technology that is managed by airlines is the in-flight entertainment system. *"Passengers are far more likely to have a positive experience with an airline if they are entertained during their flight"* (Baskas, 2018). The J.D. Power's North America Airline Satisfaction Study concludes that overall customer satisfaction has risen, however, on in-flight services such as food, drinks, and entertainment, satisfaction has decreased; satisfaction of passengers can be increased if they are entertained during the flight (Baskas, 2018).

According to Alamdari (1999, p. 205), the entertainment system does influence a passenger's satisfaction of an airline but it is not the main factor that influences satisfaction. This also depends on the duration of the flight. Figure 3 shows which factors influence the passenger's choice of airline on a scale of 0 to 5, with 5 being the most influential grade. As can be seen in the chart, price, seating comfort, reliability, punctuality and previous experience are all factors that are more important than the frequent flyer program or the in-flight entertainment system. However, Alamdari (1999, p. 206) also describes that being entertained by movies and news is one of the main priorities for long haul flights and that the in-flight entertainment system has improved over the years. The study, however, is from 1999 and innovations have since emerged and offerings have significantly changed. This might not hold in these times as more long haul flights are available and entertainment systems and technologies have improved tremendously. Furthermore, Alamdari (1999, p. 208) provides a map showing the core, expected, and augmented services are of airlines. Whereas safety, schedule, and reliability are the core of an airline, seat comfort, baggage, lounge, cleanliness, food and drinks, and the frequent flyer program are the expected services (Alamdari, 1999, p. 208). The in-flight entertainment system, together with massages, limousine services, and shower facilities, are all augmented products, meaning these could make an airline stand out but are not expected (Alamdari, 1999, p. 208). However, as the research done by Alamdari was completed in 1999 and since innovation has changed, technology has improved, and more airlines have started offering such services, the question holds whether this outcome is still applicable to current market.

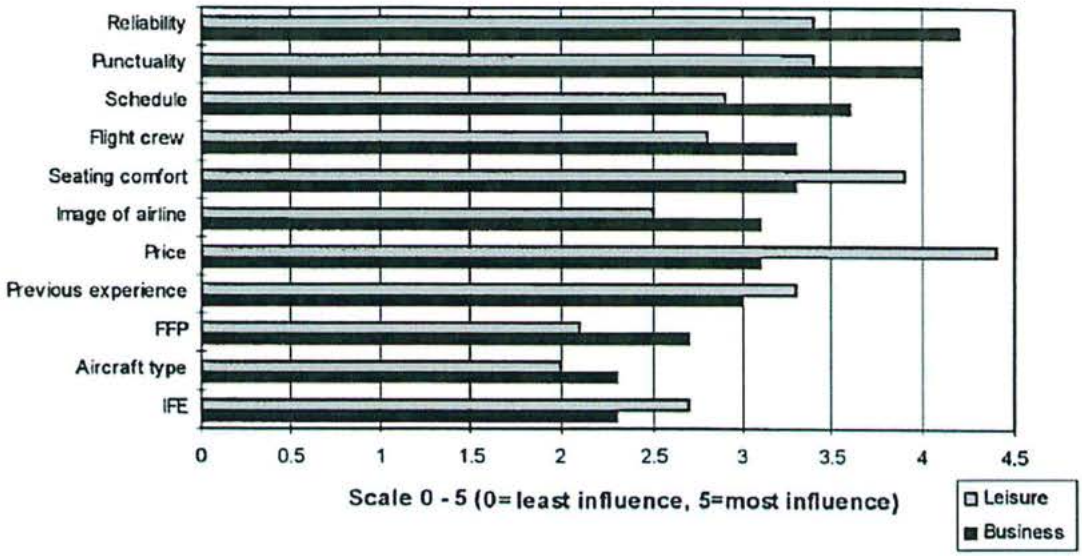

Figure 3. Influencers on passenger satisfaction with airlines on a scale from 0 to 5 with 5 being the highest influencing factor. Data from Alamdari (1999).

A study by Wardhana, Syahputra & Kartawinata (2017) focuses on determining factors of consumer preferences in the Indonesian market. The results of the study are in line with the previously mentioned literature; tariffs, services, punctuality, safety, convenience, crew, flight network, luggage service, and image of the airline are all factors that become consumer preferences when deciding which airline to go for (Wardhana et al., 2017, p. 18). The most important factors of these are tariffs, punctuality, and safety (Wardhana et al., 2017, pp. 17-18). This goes hand-in-hand with another study by Ali (2007) that also focuses on what makes passengers choose a certain airline but in the New Zealand market. This study shows that the most important factor for frequent travelers when selecting an airline is the standard of products and services, followed by price, flight schedules, and word-of-mouth by friends and relatives (Ali, 2007, p. 9). Furthermore, the study shows that the standard of products and services, and flight schedules are the most important aspect for travel agents, whereas for infrequent travelers, it is price and national pride, followed by flight schedules and standard of products and services (Ali, 2007, pp. 9-10).

Certain airlines stand out with these aspects as these airlines have won several awards for the relevant factors. Looking at the Skytrax World Airline rewards, some airlines clearly stand out. The airlines are surveyed on cabin service, group and airport service, and on their onboard products (Skytrax, 2018d). According to Skytrax (2018d), passengers get to evaluate airlines on factors such as boarding assistance, service, language skills, in-flight meals, staff

attitude and service, the website and check-in process, comfort, cleanliness, in-flight entertainment system, quality of meals, and other in-flight amenities. Looking at the best in-flight entertainment system, Emirates airline stands out, followed by Singapore Airlines and Qatar Airways (Skytrax, 2018e). The award is given for quality and shows that Emirates is highly competitive in the air travelling industry (Skytrax, 2018e). According to Skytrax (2018f), leisure travelers' satisfaction with product and staff service is highest with Air Transat, TUI Airways, and TUI fly. However, most passengers voted differently than the previously mentioned leisure airlines; Singapore Airlines, Qatar Airways, ANA All Nippon Airways, Emirates and EVA Air were chosen as the top of 100 airlines (Skytrax, 2018g).

To conclude, consumer behavior can be seen as the sum of all mental and physical activities undertaken by consumers to purchase and use products or services (Sheth & Kellstadt, 2014, p. 1). This activity can also be found among all processes of an airline; from passengers purchasing tickets to flying with a particular airline. The ultimate goal of many companies is to increase customer satisfaction and retention, and this can be done in many different ways. However, to measure consumer behavior, data and information has to be collected from consumers themselves. The literature gives an indication of what is important to consumers, and what consumers believe enhances the experience of using certain brands.

The data in the literature shows that there are several factors influencing satisfaction, purchase intention, and positively affecting consumer behavior. Oke et al. (2015, pp. 48-50) came to the conclusion that brand awareness, brand association, brand loyalty, perceived quality, and repurchasing behavior influence a consumer's decision of choosing a brand. But beside the previously mentioned aspects, passengers also rely heavily on other factors such as credibility, safety, security, communication, culture (Jeng, 2015; Peattie & Moutinho, 2000; Ruiz-Mafe et al., 2013; Barukh, 2018). Jeng (2015, p. 5) showed that brand credibility is a contributor to consumer purchase intention, whereas Chen et al. (2018, p. 10) wrote that service quality and brand awareness also positively influence purchase intention. Furthermore, technology and loyalty programs also influence passenger satisfaction (Dolnicar et al., 2009; Peattie & Moutinho, 2000; Baskas, 2018).

The next chapter therefore focuses on the creation of the variable blocks. The information from both literature review aspects is taken into consideration, and the most important aspects are grouped together. Table 1 and 2 below show an overview of the literature review and give indication on what the most important findings are.

2.3 Influencing Factors – Blocks

According to the literature, when investigating the sweet spot of airline experience design, a few variables stand out which are named over and over again in various research papers. These variables are grouped together for the analysis in the quantitative research.

Looking at customer service and quality management, the literature review points out that there is a gap when it comes to experiences and expectations. We see that the expected and experienced services are mainly influenced by *price*, but for leisure travelers it is also *safety* and *risk handling*. However, a few other factors stand out and have a significant impact on the experienced and expected service of an airline. From the SERVQUAL study, the main factors influencing experiences and expectations are assurance, empathy, reliability, responsibility, responsiveness, and tangibles (Aydin & Yildirim, 2012; Zhu, 2016; Basfirinci & Mitra, 2014; Suhartanto & Noor, 2012; Hussain et al. 2015). These factors are cited multiple times in various research papers, which shows that they influence customer satisfaction positively or negatively, and foster expectations among travelers. Among the named SERVQUAL factors are variables that influence the expectations of travelers. Expectations are mainly influenced by price, safety, image and reputation of an airline, luggage handling, but also experiences by others and word-of-mouth recommendations (Aydin & Yildirim, 2012; Zhu, 2016; Hussain et al., 2014; Wong & Musa, 2011; Tsantoulis & Palmer, 2008; Curtis et al., 2012). Looking at the perceived quality of services, we see that baggage handling, on-time performance and punctuality, convenience, flight network, and flight schedules, handling of delays, risk, and (lost) luggage, crew helpfulness and attitude, safety of flight and transactions, boarding and disembarking service, in-flight entertainment, and pricing (Zhu, 2016; Basfirinci & Mitra, 2014; Ringle et al., 2011; Tsantoulis & Palmer, 2008; Glab, 1998; Curtis et al., 2012) all influence the perception of airlines and influence customer satisfaction.

Consumer behavior on the other hand is influenced by different factors, but some are similar to those influencing the perception of service and quality among airlines. Passengers choose airlines mainly by price, but this can be influenced by other factors that increase passenger satisfaction and purchasing intention. Passengers choose airlines because of brand awareness and association, perceived quality, credibility, safety, security, marketing, technology, loyalty and loyalty programs, but also by the influence of relatives and friends (Jeng, 2015; Peattie & Moutinho, 2000; Ruiz-Mafe et al., 2013; Barukh, 2018; Oke et al., 2015).

Summing up the factors and variables currently influencing satisfaction and experiences of airline experience designs, we see 10 different blocks; *price, reliability, responsibility, responsiveness, assurance, communication, crew, comfort, technology*, and *in-flight services*. Literature and research shows that there are gaps between experiences and expectations, and that price drives the expectations of passengers. For full service airlines, price means that passengers have certain expectations that are not always met by those airlines. Gaps can be found mostly among the different variables of the other blocks. *Reliability* is about how reliable an airline is, defined by safety, on-time performance and punctuality, security, and past experience. *Responsibility* refers to all the services an airline is responsible for, such as risk and delay handling, and luggage handling. *Responsiveness*, how flexible an airline is, is defined by the flight network an airline has, and how fast the processes are from boarding to disembarking. *Assurance* refers to how an airline is perceived by passengers, its image and reputation, customer awareness, and credibility, all of which serves airlines in terms of assuring passengers make the right choice when booking tickets. *Communication* by airlines also defines how passengers choose which airline to fly with. This is mainly supported by word-of-mouth, marketing, the destinations an airline offers, personal offers, and by pride of flying national carriers. The helpfulness, friendliness, cultural etiquettes, and languages spoken by the *crew* make an airline more attractive, helping passengers decide which airline to choose and enhancing passenger satisfaction. Further enhancing satisfaction and Willingness-To-Pay (WTP) are well-structured and convenient flight schedules, seat comfort, and modern equipment of aircraft and interiors, these variables define the *comfort* of passengers. Furthermore, satisfaction with *technology* is dependent on the in-flight entertainment system, frequent flyer program, and online check in possibilities. Finally, the *in-flight services* are defined by the meals served, the beverages available, and the amenities at passengers' disposal.

Table 1 shows the blocks in a visualized way to sum up the literature review and conclude what the quantitative research will focus on; the standard of variables that are necessary, what could improve for passengers, and whether it is currently seen as sufficient by passengers.

In addition to the literature review variable blocks, a few additional variables were added to measure the impact of innovative ideas and extra-care services on consumer behavior and satisfaction among passengers. These variables can be found in table 2.

Block	Variables	Authors	Necessary	Improves	Sufficient
Price	**Price**	Toh & Hu, 1988; Alamdari, 1999; Chin, 2002; Ali, 2007; Pakdil & Aydin, 2007; Tsantoulis & Palmer, 2008; Dolnicar et al., 2009; Wong & Musa, 2011; Aydin & Yildirim, 2012; Curtis et al., 2012; Suhartanto & Noor, 2012; Zhu, 2016; Hossain et al., 2017; Yimga, 2017; Barukh, 2018; Tsafarakis et al., 2018; Brochado et al., 2019	Good price quality ratio		Price leads to gap in expected and perceived experiences
Reliability	**Safety**	Alamdari, 1999; Gilbert & Wong, 2003; Atalik & Özel, 2007; Tsantoulis & Palmer, 2008; Ringle et al., 2011; Curtis et al., 2012; Basfirinci & Mitra, 2014; Hussain et al., 2014; Jeeradist et al., 2016; Zhu, 2016; Shen, 2017; Wardhana et al., 2017; Xu et al., 2018	Safety and on-time performance/punctuality are most important when it comes to service quality and satisfaction	Satisfaction	Reliability shows gap between expectations and experiences
	On-time performance & punctuality	Toh & Hu, 1988; Glab, 1998; Alamdari, 1999; Chin, 2002; Tsantoulis & Palmer, 2008; Ringle et al., 2011; Aydin & Yildirim, 2012; Curtis et al., 2012; Zhu, 2016; Hossain et al., 2017; Wardhana et al., 2017; Brochado et al., 2019		Satisfaction	
	Security	Basfirinci & Mitra, 2014; Hussain et al., 2014		Satisfaction	
	Past experience	Alamdari, 1999; Pakdil & Aydin, 2007; Barukh, 2018		Decision making	
Responsibility	**Risk handling**	Ringle et al., 2011; Xu et al., 2018	How airlines handle risks, complaints, and personal belongings defines quality	Decision making; Satisfaction	Large gap between expected responsibilities by airlines and perceived experiences
	Luggage handling	Alamdari, 1999; Tsantoulis & Palmer, 2008; Curtis et al., 2012; Basfirinci & Mitra, 2014; Zhu, 2016; Wardhana et al., 2017; Brochado et al., 2019		Satisfaction	
	Handling of delay	Suzuki, 2000; Basfirinci & Mitra, 2014; Yimga, 2017; Brochado et al., 2019		Attractiveness; Satisfaction	
Responsiveness	**Flight network**	Toh & Hu, 1988; Chin, 2002; Pakdil & Aydin, 2007; Hossain et al., 2017; Wardhana et al., 2017; Yimga, 2017	A good flight network and priority boarding/disembarking improves service	Satisfaction	Responsiveness shows gap between expectations and experiences
	Fast/priority boarding	Glab, 1998; Ringle et al., 2011; Zhu, 2016; Xu et al., 2018		Satisfaction	
	Fast disembarking	Glab, 1998; Tsafarakis et al., 2018; Brochado et al., 2019		Perception; Satisfaction	
Assurance	**Image & Reputation**	Aydin & Yildirim, 2012; Hussain et al., 2014; Jeeradist et al., 2016; Wardhana et al., 2017; Barukh, 2018; Chen et al., 2018	An airline's image, awareness, and credibility improves decision making	Decision making; Satisfaction	Assurance shows gap between expectations and experiences
	Awareness	Wong & Musa, 2011; Chen et al., 2018		Decision making	
	Credibility	Erdem & Swait, 1998; Spry et al., 2011; Jeng, 2015		Decision making	
Communication	**Word-of-mouth**	Ali, 2007; Wong & Musa, 2011; Armstrong & Kotler, 2013; Ruiz-Mafa et al., 2013; Huang & Lu, 2017; Barukh, 2018	Communication is important as it helps passengers decide which airline to choose	Decision making	Not necessarily a gap, but certain variables show that differences can improve an airline's image
	Marketing	Barukh, 2018		Decision making	
	Destination offers	Huang & Lu, 2017		Decision making	
	Personal offers	Ringle et al., 2011		Decision making	
	National carrier	Ali, 2007; Dolnicar et al., 2009		Decision making; Loyalty	
Crew	**Helpfulness**	Glab, 1998; Tsantoulis & Palmer, 2008; Ringle et al., 2011; Curtis et al., 2012; Suhartanto & Noor, 2012; Basfirinci & Mitra, 2014; Zhu, 2016; Wardhana et al., 2017; Brochado et al., 2019	Passengers expect a certain quality of service when it comes to	Attractiveness; Satisfaction	Full service airlines show large gaps between experienc-
	Friendliness	Glab, 1998; Tsantoulis & Palmer, 2008; Ringle et		Attractive-	

		al., 2011; Curtis et al., 2012; Zhu, 2016; Wardhana et al., 2017; Brochado et al., 2019	crew, which can heavily influence attractiveness, satisfaction, and decision making	ness; Satisfaction	es and expectations of crew helpfulness and service
	Cultural etiquettes	Peattie & Moutinho, 2000		Decision making; Satisfaction	
	Languages	Peattie & Moutinho, 2000		Satisfaction; Decision making	
Comfort	**Flight schedules & convenience**	Toh & Hu, 1988; Glab, 1998; Alamdari, 1999; Chin, 2002; Ali, 2007; Tsantoulis & Palmer, 2008; Ringle et al., 2011; Aydin & Yildirim, 2012; Curtis et al., 2012; Zhu, 2016; Hossain et al., 2017; Wardhana et al., 2017; Yimga, 2017; Barukh, 2018; Tsafarakis et al., 2018	Comfort is a basic necessity for leisure travelers and defines how passengers choose airlines	Attractiveness; Satisfaction; WTP;	Currently, passengers experience a gap between what they expect and perceive
	Seat comfort & leg room	Toh & Hu, 1988; Glab, 1998; Alamdari, 1999; Chin, 2002; Tsantoulis & Palmer, 2008; Ringle et al., 2011; Curtis et al., 2012; Zhu, 2016; Hossain et al., 2017; Barukh, 2018; Xu et al., 2018; Brochado et al., 2019		Satisfaction; WTP;	
	Modern equipment	Glab, 1998; Aydin & Yildirim, 2012; Basfirinci & Mitra, 2014; Brochado et al., 2019		Satisfaction	
Technology	**In-flight entertainment**	Tsantoulis & Palmer, 2008; Ringle et al., 2011; Curtis et al., 2012; Baskas, 2018; Brochado et al., 2019	Technology such as FFPs or online check-in influence passenger satisfaction	Satisfaction	There is a gap between experiences and expectations of current technology
	Frequent flyer program	Glab, 1998; Alamdari, 1999; Dolnicar et al., 2009; Zhu, 2016; Hossain et al., 2017; Hossain et al.,2017		Satisfaction	
	Online check-in via App or Website	Ringle et al., 2011; Agag & El-Masry, 2017; IATA, 2017b		Satisfaction	
In-flight Services	**Meals**	Glab, 1998; Alamdari, 1999; Tsantoulis & Palmer, 2008; Curtis et al., 2012; Zhu, 2016; Fensterstock, 2017; Barukh, 2018; Baskas, 2018; Xu et al., 2018; Brochado et al., 2019	Passengers expect a certain standard when it comes to meals, beverages, and amenities	Decision making; Satisfaction; WTP	Gaps between experiences and expectations when it comes food, beverages and amenities
	Beverages	Glab, 1998; Alamdari, 1999; Tsantoulis & Palmer, 2008; Curtis et al., 2012; Baskas, 2018; Brochado et al., 2019		Satisfaction	
	Amenities	Tsantoulis & Palmer, 2008; Curtis et al., 2012; Zhu, 2016; Brochado et al., 2019		Satisfaction	

Table 1. List showing which variables are important to passengers, and increase attractiveness, decision making, loyalty, satisfaction, and WTP.

Additional Services	**Sustainability (extra options to reduce CO2 footprint)**	Additional variables added to measure how extra-care services would influence the consumer behavior and satisfaction among passengers
	Service for disabilities (wheelchair, service dogs)	
	Service for minors (guided boarding & disembarking)	
	Select seating	
	Priority luggage return	
	Book a car or hotel when booking tickets	
Travel Innovation	**Service Robots**	Additional variables added to measure how innovative services would influence the consumer behavior and satisfaction among passengers
	Receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp)	
	Check-in via biometrics (facial recognition, fingerprints)	

Table 2. Additional block to measure innovative and extra-care services.

3. RESEARCH METHODS

This chapter specifies what the objectives of the empirical research were and how the research was conducted. Furthermore, the research methods chapter shows what strategies were implemented for conducting the research, what the target group was, and how this target group was sampled. Lastly, data analysis methods are discussed and the limitations of the study are described.

Original data was collected for the empirical study as this study is an entirely new study based on current expectations and experiences of airline passengers. Currently, as stated in the introduction, there are no major up-to-date research publications examining airlines as a whole, as most research only focuses on certain parts of airline processes.

3.1 Research Strategy

The survey design is based mainly on the variable blocks as defined in the previous chapter. These blocks; Price, Reliability, Responsibility, Responsiveness, Assurance, Communication, Crew, Comfort, Technology, In-flight Services, Additional Services, and Travel Innovation will be presented to leisure travelers in an online quantitative survey and serve as guidelines for the analysis methods mentioned later. The purpose of the survey is to investigate how passengers currently think of airlines and where airlines have the possibility of standing out from the competition. This data is collected in a cross-sectional design as participants only have to answer the questionnaire once, and is collected at one point in time only. Participants, all of which are leisure travelers, are however not stratified, as there is no need to identify differences between different sub-groups within leisure travelers.

The quantitative study is done in form of an online questionnaire. This Computer-Assisted Web Interviewing (CAWI; online questionnaire following a script) method is used simply because of the reach and flexibility. The questionnaire was programmed with Lighthouse Studio by SSI, a professional online questionnaire development tool. There are no known details of the passengers, thus no known phone numbers or email addresses are available to conduct the interviews. The questionnaire is structured in a formal and standardized way, including only closed questions. All passengers received the same questionnaire (standardized).

The reason this research is done in a quantitative way is because a quantitative questionnaire will give a more complete overview of what passengers expect and experience than asking focus groups or conducting a few in-depth interviews on what these passengers would

change. Quantifying the qualities that are known can give a more complete picture of where a relatively more representative group of travelers currently stands and in addition, it gives the researcher a chance to find correlations between overall satisfaction and the factors mentioned in the literature review. But before the leisure travelers were interviewed, a field-test was conducted on a small group of participants to find out whether there are any errors, problems, or vague parts that need substitution. The sample size of this field-test was 33 people.

The questionnaire took approximately 15 minutes to fill out and consisted of basic demographic questions such as; gender, age, and level of education, but also flight specific questions such as how often one has flown in the past two years or whether the last flight was a long haul flight or short haul flight. The questions to be integrated based on the literature review are those based on the variable blocks defined in the previous chapter. For each of these variables, satisfaction and importance were measured using scales from 1 to 6, defined according to region, and participants were asked what makes an airline stand out based on similar scales. The question of whether participants are willing to pay extra for these variables was asked with the answer options of yes, no, and 'should be included in the price'.

3.2 Data Collection

The literature review showcases what current research in consumer behavior and service and quality management entails, and it shows what the most significantly important factors are when it comes to airlines, passenger satisfaction, passenger loyalty for both quality and service management, and consumer behavior. But most importantly, the literature review shows which variables are most important when it comes to passenger's expectations and experiences. These variables were selected for the quantitative study.

The survey participants targeted with this research are leisure travelers; a minimum of 200 randomly selected leisure travelers were targeted with the quantitative CAWI study. Factors such as age, gender and cultural background were controlled for as well as a balance between long haul flights and short haul flights. The reason why 200 leisure travelers were chosen was to fulfil the common rule of thumb to have at least 10 observations per variable in addition to a higher margin of error (ResearchGate, 2018), and since 26 variables were mentioned in at least 3 research papers or more, per single variable, the total sample size of 228 suffices.

The questionnaire was not based on particular airlines themselves as focusing only on one or a few airlines would give a biased outcome that leans towards these airlines. Travelers

are either satisfied or unsatisfied, but will only complain or praise this particular airline. The research was conducted without focusing on any airline to get rid of this bias and to get a general result. Of course, passengers will base their opinions on their last trip; however, suggestions for improvement are given in a general manner and are applicable to any airline customer experience design.

Business travelers were not taken into consideration. This is because business travelers either travel in business class or receive additional perks, which changes the perception of received and expected services for this group. This already gives some additional benefits and therefore business travelers travel more luxuriously and comfortably.

The research on the two pillars; service and quality management, and consumer behavior was mainly done by desk research. Scientific research was used in these fields, but for finding the qualitative factors that make certain airlines stand out in experience design, award winning airlines and the Skytrax questionnaire data were used.

As the main criteria for participants was that their last trip should have been in the last two years, anyone meeting that criteria is eligible to participate in the study. Participants were however filtered on a few other variables; participants should not work at airlines, should have flown at least once in the last 2 years, and should be older than 18 years of age. The sample size of 200 was not reached via social media, university, and family and relatives alone, therefore an online panel hosted by Talk Online Panel was used to interview additional participants. Sampling via social media, university, family and friends, and by using the Talk Online panel, led to a total sample of 228. Therefore, it was unnecessary to sample at the Schwechat Airport near Vienna, Austria. The data collection field phase took place between March and April 2019.

One problem that arose during the data collection phase was the storage of sensitive data. It was the only ethical issue that applied to this research, namely the General Data Protection Regulation (GDPR) set by the European Union that protects the privacy and data of all individuals within the European Union. The study asked participants for personal data, thus, additional security measures had to be taken. These data privacy problems were taken care of as the personal data collected was transferred and stored on secured encrypted servers only accessible to the researcher.

3.3 Framework for Data Analysis

Once the quantitative field phase was finished and all data collected, the dataset was prepared for an inferential analysis as the outcome per individual was not compelling enough to answer the research objectives. Age data was grouped together and the German scales were merged with the English scales. Also, data was checked for unreliable outcomes such as interviews that were done within a very short time and multiple interviews done by the same person. Finally, data was stored securely and used in strict confidence.

Once the data was prepared, a model with similarities to a Kano model was set up to measure important aspects such as whether passengers are willing to pay extra for additional services, which variables make an airline stand out from competition, and what passengers are expecting and experiencing at the moment. The data may also be used to show if expectations exceed experiences, or vice versa. This can also be extended to an overview of loyalty. The model will eventually give an overview that shows where currently airlines are lacking and what could be improved.

Another model used to analyze satisfaction variables was a multiple regression model. The multiple regression model is however only based on the blocks instead of looking at the complete variable lists. This was done because the 37 variables would always lead to an incredibly high correlation. The factors influencing satisfaction the most were selected and calculated to see how these factors influence satisfaction separately. The outcome should indicate what current airline experience designs are lacking, or what these designs are currently doing right or wrong.

In more detail; the dependent variable, satisfaction in this case, was predicted based on different qualities, or independent variables. Those independent variables are the blocks mentioned before. The blocks were added one by one to check which blocks, and thus which variables, explain satisfaction among airlines the most. Altogether, the blocks define the airline experience design sweet spot.

An example of a block is 'reliability'. Reliability consists of four variables; safety, on-time performance and punctuality (how many delays there are and how much time there is in between flight transfers), security, and past experiences (past flights with the airline). The four variables are part of the questionnaire and the outcome of those four variables combined defines reliability. This block is then compared to the other blocks; Price, Responsibility, Respon-

siveness, Assurance, Communication, Crew, Comfort, Technology, In-flight Services, Additional Services, and Travel Innovation, and the outcome of the multiple regression study shows which blocks influence satisfaction the most.

Moreover, the dependent variable is approximated with the formula:

$$Y = a + b1*X1 + b2*X2 + b3*X3 + b4*X4 + b5*X5 + b6*X6 + b7*X7 + b8*X8 + b9*X9 + b10*X10 + b11*X11 + b12*X12$$

To summarize, Y stands for the dependent variable (satisfaction), X1 through X12 are the blocks consisting of independent variables (Price, Reliability, Responsibility, Responsiveness, Assurance, Communication, Crew, Comfort, Technology, In-flight Services, Additional Services, and Travel Innovation), a is the value of satisfaction when all independent variables are equal to zero, and b1 through b12 are the slopes (the association between the risk factor and the outcome) (LaMorte, 2016).

The data analyses' outcomes should answer the objectives defined in the introduction. Based on the analyses, a conclusion is given together with recommendations for future research that could challenge the limitations described below.

3.4 Limitations

There are however also limitations to a quantitative study. First of all, is the sample size large enough and is it not skewed or biased towards one certain outcome? Also, regarding the sample size, is the distribution of quotas suitable to give a representative image of leisure travelers? And will the airport influence passengers to become biased because of the awareness of branded airplanes and airlines at the airport, or will passengers rate upcoming trips for the study? These are questions that could limit the research. However, with the right set of questions, these problems can be tackled. What cannot be tackled is an outcome based on only European airline passengers. As this study is conducted in Austria, other continents are either ignored, or very badly represented. Thus an outcome representative for outside Europe is difficult to attain or not possible.

Furthermore, the study only looks at the experiences and expectations of leisure travelers, meaning the business traveler segment will be ignored. The business traveler segment is a large part of the daily travelers, thus, ignoring this segment might lead to ignoring additional revenues or the majority of travelers. However, this study can always be applied to future research focusing solely on business travelers.

Looking at the variables given in table 1 and 2, one limitation could be that the variables chosen come only from the literature review, ignoring unknown variables not yet investigated. Perhaps a qualitative research approach with focus groups could reveal more variables that passengers find important when choosing an airline. This limitation will, if not in its entirety, be taken care of with one open question asking what passengers would additionally like to see improved or added to airline services to make an airline stand out and to increase a passenger's satisfaction. This should give a nice overview of what is currently lacking among airlines.

The next chapter describes the outcome of this field phase, followed by the conclusion and recommendations.

4. SURVEY FINDINGS: DESCRIPTION, ANALYSIS AND SYNTHESIS

The fourth chapter concludes the research described in chapter 3, by describing the results of the pre-test and the actual field test of the questionnaire. With leisure travelers who flew with an airline to any destination in the world as the target group, the pre-test was done among 33 participants and showed good results. The questionnaire that was sent out to a larger audience reached 343 participants and showed what was expected; a gap between what people believe is important, makes an airline stand out from its competition, and current airline service and quality experiences.

Throughout the chapter, the outcome of the field test will be analyzed showing the participants' demographics, what types of innovators participated in the study, and how the participants scored the variables throughout the different questions. This chapter is structured in such a way that it will first describe the data, followed by a detailed analysis, after which the outcome is compared to the literature review. The actual survey that was sent out can be found in appendix A.

4.1 Pre-Test

Prior to the main study, a short field test was done to capture the findings of 30 people. The total number of participants in the pre-test was 33 for most questions. This was done to make sure the items asked in the survey made sense, and to see whether there were any problems or questions concerning the questionnaire. The outcome of the pre-test was positive, showing high Cronbach's Alpha scores on the four questions with the main variable list set up in the previous chapters. The pre-test also shows expected frequencies among the different variables, concluding that the variables are clear and participants have a similar understanding of those variables.

The Cronbach's Alpha for the first question, namely "On a scale from 1 = "not at all important" to 6 = very important", how important are the following items for you when it comes to choosing an airline?" shows a high number of .944, meaning the variables have a high consistency and is acceptable. This also goes for the third and fourth question; "On a scale from 1 = "less attractive" to 6 = "more attractive", which services and qualities do you think make an airline more attractive over other airlines, if it would improve/invest in those areas?" and "On your previous trip, how satisfied were you with the following items, on a scale from 1 = "very dissatisfied" to 6 = "very satisfied"?" respectively. Both questions show a positive Cronbach's Alpha above .90. The second question in the questionnaire "Would you be willing to pay extra

for:" shows a lower Cronbach's Alpha, but since the number is still above .70, it is acceptable for social studies. Outcome is shown in table 3.

Question	N	Cronbach's Alpha Score	N of Items
On a scale from 1 = "not at all important" to 6 = very important", how important are the following items for you when it comes to choosing an airline?	33	0.944	37
Would you be willing to pay extra for:	33	0.701	31
On a scale from 1 = "less attractive" to 6 = "more attractive", which services and qualities do you think make an airline more attractive over other airlines, if it would improve/invest in those areas?	33	0.942	34
On your previous trip, how satisfied were you with the following items, on a scale from 1 = "very dissatisfied" to 6 = "very satisfied"?	33	0.94	36

Table 3. Cronbach's Alpha scores among the four main questions – pre-test results.

4.2 Description

After cleaning up the dataset to get rid of any incomplete surveys, disqualified surveys (participants younger than 18 years of age, working at an airline, no flights in the past 2 years), and participants that rushed through the questionnaire, 228 valid completed surveys were left (of the 343 total participants). These surveys are filled in from beginning to end, without any screen-out (filtered out) or unfinished questions.

The majority of the 228 participants in this study are female, with most of the participants being in the 18 to 34-year-old age group. Looking at the educational level, we see that most of the participants completed a bachelor's degree or higher. When it comes to ethnicity, the vast majority of the study is from Europe, as expected and described in the methods chapter. The question regarding traveler types shows that most of the participants flew between 2 and 5 times in the past two years, whereas most of the flights made were short haul flights.

Looking at respondents' attitudes regarding the importance of the variables on the ideal flight, we see that safety and security, credibility (trust), price, on-time performance and punctuality, and destination offers top the list of what participants find most important for their ideal flight. The least important variables for the ideal flight are check-in via biometrics (facial recognition, fingerprints), book a car or hotel when booking tickets, and service robots. To check whether an airline could improve its image and passenger satisfaction, another question asked whether the variables would make an airline stand out from the rest. The outcome of this question shows that safety and security, price, on-time performance and punctuality, seat comfort and legroom, and friendliness (by crew) are the top five variables that would

make an airline stand out. Also for this question, check-in via biometrics (facial recognition, fingerprints), book a car or hotel when booking tickets, and service robots are at the bottom of the list, already showing some overlap with the first question.

The question of whether participants would pay extra for certain variables shows that for the variables mentioned above, the majority of the participants stated that safety and security should be included in the price, as well as on-time performance and punctuality, credibility (trust), friendliness (by crew), sustainability options, and select seating. Seat comfort and leg room is the only variable participants would be willing to pay extra for. Looking at service robots, check-in via biometrics (facial recognition, fingerprints), and book a car or hotel when booking tickets, these are additional services participants would not be willing to pay for.

Finally, based on whether passengers were satisfied with the variables on their previous trip, we see that safety and security, risk handling, friendliness (by crew), destination offers, and languages (spoken by crew) score highest. Variables scoring the lowest on satisfaction here are sustainability (extra options to reduce CO2 footprint), service robots, amenities (headset, sleeping mask), and the in-flight entertainment (screen, newspaper) variable. All previously mentioned questions, except willingness to pay, were rated on a scale from 1 to 6, with 6 being the highest. Willingness to pay was scored using the options "yes", "no", and "should be included in the price".

Overall flight experience results show that most participants would be willing to use the airline again in the future, are satisfied with the overall flight experience, and participants would recommend the airline to friends and family. Spreading positive word of mouth scored lowest, however, still positively. The answer possibilities were based on a 5-point Likert scale. The final question, whether participants see a difference in service now that more and more low cost carriers are opening up and expanding routes, shows that most people believe airlines are not improving their services and quality.

In addition, a few open questions were presented to participants, after which a list of creative and innovative airline ideas was tested. The outcome of the open questions are interesting, as most people would add more comfort, better service, better efficiency and less time spent at the airport to their ideal airline experience. Looking at additional comments, people mostly talk about how service could be improved and how safety and security, along with price, are the most important aspects of airlines. Presenting participants with a list of new airline

ideas showed that participants are mostly interested in automatic refunds when flights are delayed, and higher than average leg room and seat comfort.

Concluding from the basic description, a small gap is already visible among the variables, but to see whether the results are statistically significant, the following section goes into more detail to discover how participants rated the variable lists and how the responses compared to one another.

4.3 Analysis

To continue from the previous sub-chapter, this part investigates, based on statistical tests, how the questions were answered in detail. The tests run for this analysis, as described in previous chapters, are a multiple regression analysis and a matrix model showing the variables "willingness to pay extra", "importance for ideal flight" and "improves the airline's image" and how the factors could improve satisfaction among passengers.

4.3.1 Demographics

Looking at the demographics of the 228 participants, women are slightly overrepresented in the sample (58.3 percent). In addition, this question asked whether someone sees themselves as gender neutral (genderqueer or non-binary), though nobody identified themselves as such in this survey. Age wise, participants were distributed over five different categories; between 18 and 24 years of age, 25 and 34 years of age, 35 and 44 years of age, 45 and 54 years of age, and those that are 55 or older. The distribution of these groups shows that the majority are between 25 and 34 years of age, followed by those between 18 and 24, and as the third-largest group, those that are 55 plus (41.7 percent, 26.3 percent, and 18.4 percent respectively). The other participants are evenly divided over the other two age categories. The question "What is the highest level of education you have completed?" shows that the majority of participants in the study (with 65.8 percent) have completed a bachelor's degree or higher, followed by high school graduates with 20.2 percent. The final demographic question, namely regarding ethnicity, shows that the vast majority of participants were from Europe (87.3 percent, 199 out of 228 participants). This is followed by people from the Asia region with 6.1 percent. The outcomes per question are specified in table 4 below.

Demographics	N	Percent
female	133	58.3
male	95	41.7
18-24 years old	60	26.3
25-34 years old	95	41.7
35-44 years old	16	7.0
45-54 years old	15	6.6
55+	42	18.4
Still in education	18	7.9
Less than high school	14	6.1
High school diploma or equivalent	46	20.2
Bachelor's/master's/doctorate degree or equivalent	150	65.8
Africa	1	0.4
Europe	199	87.3
Asia	14	6.1
North America	3	1.3
South America	5	2.2
Oceania	3	1.3
Other	3	1.3
Total identical N	228	

Table 4. Demographics table showing participant distribution.

Two other questions which participants were required to answer were "How many flights have you taken in total in the last 24 months?" and "Was your previous flight a long haul flight (more than 6 hours) or a short haul flight (less than 6 hours)?". These questions show what type of travelers participated in the study.

The outcome of the two questions shows that the majority of travelers have flown between 2 and 5 times in the last two years, and mainly short haul flights. However, as the latter question only asks for their most recent flight experience, one can only assume that most of the flights are short haul flights. Tables 5 and 6 show these results.

How many flights have you taken in total in the last 24 months?	Frequency	Percent
1 time	33	14.5
2-5 times	123	53.9
6-10 times	42	18.4
11 times or more	30	13.2
Total	228	100.0

Table 5. Type of traveler: frequency of flight distribution.

Was your previous flight a long haul flight (more than 6 hours) or a short haul flight (less than 6 hours)?	Frequency	Percent
Long haul flight	65	28.5
Short haul flight	163	71.5
Total	228	100.0

Table 6. Type of traveler: short versus long haul flight distribution.

4.3.2 Ideal Flight Analysis

The analysis of the question regarding the importance of different variables for the ideal flight ("... how important are the following items for you when it comes to choosing an airline?") shows that safety and security, credibility (trust), price, on-time performance and punctuality, and destination offers are leading. Participants found these variables to be the most important aspects when it comes to choosing an airline. On a scale from 1 to 6 with 6 being the highest (= most important), the five aforementioned variables, and risk handling, all score a mean of above 5.

For these first six variables, the skewness and kurtosis both show that participants voted more or less similarly on these variables. Skewness, according to Business Dictionary (2019), is the "degree to which a statistical distribution is not in balance around the mean (is asymmetrical or lopsided)" whereas the kurtosis is a "measure of the tails of a frequency distribution when compared with a normal distribution" (Business Dictionary, 2019). For safety and security, the skewness is -2.196 and the kurtosis is 4.756, meaning the outcome is very much leaning towards the highest outcome (most important), with most participants voting around those outcomes as well. The same goes for price, which scored -1.612 and 3.144 on skewness and kurtosis respectively. This outcome is as expected. Price is, according to many scientific research papers, the most important aspect when it comes to choosing an airline, whereas safety and security follows closely. Credibility (trust), the second highest scoring variable on the list, shows a skewness and kurtosis of -1.418 and 1.991 respectively, showing a slightly lower kurtosis, but still a high mean of 5.24.

Furthermore, items such as friendliness (by crew), flight schedules and convenience, past experience, seat comfort and leg room, helpfulness (by crew), modern equipment (new airplanes, new technology), online check-in via app or website, select seating, and image and reputation score relatively highly in their relevance for choosing an airline for their ideal flight. The mean ranges between 4.50 and 4.99, whereas the skewness and kurtosis differ among the variables. Friendliness (by crew), flight schedules and convenience, and past experience have

higher skewness and kurtosis than the rest, which shows that for these three variables participants are still more or less in agreement. Looking at seat comfort and leg room, modern equipment (new airplanes, new technology), online check-in via app or website, select seating, and image and reputation, we clearly see a lower kurtosis and skewness. Participants are more divided over these variables.

Looking at some of the lowest scoring variables, we see that mainly the additional services scores lower, except for select seating and sustainability. The mean among these variables ranges from 2.36 to 3.57, showing these variables are not as important as the other variables when it comes to choosing an airline. The skewness values for these variables are more around 0 and positive, whereas the kurtosis shows participants are not distributed on these variables either.

Interestingly enough, the frequent flyer program scores relatively low when it comes to choosing an airline. There is a low skewness with .131 and a slightly higher kurtosis with -.947, showing that participants are pretty much in agreement about the importance of a frequent flyer program.

For most of the variables, except safety and security, and credibility, the standard deviation lies between 1.022 and 1.845. For the first two variables, the standard deviation is .922 and .966 respectively. The standard deviation here shows that all responses fall within 2 standard deviations from the mean. This means that participants are close to one another when it comes to grading the variables. However, for service for minors (guided boarding and disembarking), service for disabilities (wheelchair, service dogs), receiving flight info and ticket via chatbots (Facebook Messenger, WhatsApp), national airline, and check-in via biometrics (facial recognition, fingerprints), respondents' answers were less normally distributed as the standard deviation lies between 1.615 and 1.845.

All outcomes can be found in table 7 below.

	F1 - On a scale from 1 = "not at all important" to 6 = "very important", how important are the following items for you when it comes to choosing an airline?	N	Mean	Std. Deviation	Skewness	Kurtosis
Price	Price	228	5.19	1.022	-1.612	3.114
Reliability	Safety & Security	228	5.52	.922	-2.196	4.756
	On-time performance & punctuality	228	5.06	1.033	-1.324	2.207
	Past experience	228	4.96	1.183	-1.204	1.055
spo nsi-	Risk handling	228	5.01	1.163	-1.162	.830

	Fast/priority boarding	228	3.97	1.528	-.382	-.865
	Fast disembarking	228	3.96	1.418	-.444	-.586
Assurance	Image & Reputation	228	4.50	1.306	-.833	.283
	Awareness (well-known airline)	228	4.46	1.288	-.785	.205
	Credibility (trust)	228	5.24	.966	-1.418	1.991
Communication	Word-of-mouth (by relatives, friends)	228	4.21	1.274	-.475	-.365
	Marketing	228	3.29	1.289	.007	-.446
	Destination offers	228	5.06	1.158	-1.332	1.455
	Personal offers (special offers for you)	228	3.99	1.457	-.355	-.723
	National airline	228	3.51	1.622	-.122	-1.156
Crew	Helpfulness (by crew)	228	4.81	1.164	-.920	.704
	Friendliness (by crew)	228	4.99	1.080	-1.158	1.287
	Cultural etiquettes (by crew)	228	3.90	1.545	-.336	-.841
	Languages (spoken by crew)	228	3.89	1.594	-.371	-.867
Comfort	Flight schedules & convenience	228	4.96	1.139	-1.202	1.151
	Seat comfort & leg room	228	4.88	1.157	-.938	.371
	Modern equipment (new airplanes, new technology)	228	4.55	1.321	-.878	.084
Technology	In-flight entertainment (screen, newspapers)	228	4.26	1.424	-.538	-.540
	Frequent flyer program	228	3.23	1.574	.131	-.974
	Online check-in via app or website	228	4.54	1.476	-.953	.094
In-flight Services	Meals	228	4.15	1.501	-.627	-.481
	Beverages	228	4.43	1.460	-.871	-.056
	Amenities (headset, sleeping mask)	228	3.64	1.496	-.171	-.863
Additional Services	Sustainability (extra options to reduce CO2 footprint)	228	4.06	1.482	-.419	-.701
	Service for disabilities (wheelchair, service dogs)	228	3.57	1.795	-.090	-1.353
	Service for minors (guided boarding & disembarking)	228	3.33	1.845	.087	-1.449
	Select seating	228	4.50	1.322	-.828	.201
	Priority luggage return	228	3.57	1.568	-.107	-.986
	Book a car or hotel when booking tickets	228	2.54	1.583	.648	-.803
Travel Innovation	Service robots	228	2.36	1.393	.677	-.568
	Receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp)	228	2.93	1.733	.367	-1.218
	Check-in via biometrics (facial recognition, fingerprints)	228	2.84	1.615	.347	-1.160

Table 7. Overview of variable importance when choosing an airline.

Calculating the averages of the blocks, we see that on average, most people choose an airline because of price, as expected, with an average of 5.19. This is followed by Reliability with 5.18 as its average score, also as expected, after which Comfort is the third most important block of choosing an airline. For Price and Reliability, the high skewness and high kurtosis shows us that participants score these blocks similarly, and most of the answers tend towards the higher numbers. Looking at comfort, participants score Comfort variables as 4.80 on average and are much more equally distributed. This is followed by Assurance, consisting of image and reputation, awareness, and credibility. This block scores the fourth highest mean

with 4.73, and a higher skewness and kurtosis compared to most other variables. Also here we see that participants answer mostly with the higher numbers and are equally distributed among those higher numbers.

Blocks such as Crew and Responsibility score highly as well with means of 4.40 and 4.32 respectively. The scales are the same as before; thus, these blocks are still important to participants, but not as crucial as price and reliability. The In-flight Services, Communication and Technology scores slightly above 4 (4.08, 4.01, and 4.01 respectively), and shows that most people are equally distributed among these blocks.

Interestingly enough, whereas sustainability as an individual variable scores a rather high mean, looking at the block we see a much lower mean. Also the skewness and kurtosis shows that people are more normally distributed and unevenly divided on the variables of Additional Services. Furthermore, Travel Innovation scores the lowest mean which is similar to the individual variables overview.

The outcome is shown in table 8 below.

F1 - On a scale from 1 = "not at all important" to 6 = "very important", how important are the following items for you when it comes to choosing an airline?	N	Mean	Std. Deviation	Skewness	Kurtosis
Price	228	5.19	1.022	-1.612	3.114
Reliability	228	5.18	0.826	-1.489	2.572
Responsibility	228	4.32	1.121	-0.389	-.375
Assurance	228	4.73	1.021	-0.930	.763
Communication	228	4.01	0.902	-0.267	.332
Crew	228	4.40	1.102	-0.486	-.159
Comfort	228	4.80	0.997	-0.821	.191
Technology	228	4.01	1.099	-0.309	-.313
In-flight Services	228	4.08	1.318	-0.575	-.300
Additional Services	228	3.60	1.224	-0.052	-.800
Travel Innovation	228	2.71	1.387	0.384	-.880

Table 8. Overview of block importance when choosing an airline.

4.3.3 Airline Attractiveness Analysis

The attractiveness of airlines was measured using the question "which services and qualities do you think make an airline more attractive over other airlines, if it would improve/invest in those areas?" This question was answered using a 6 point scale, ranging from less attractive (=1) to more attractive (=6). The outcome of the analysis shows which variables from the variable list would make an airline more attractive to potential passengers, if airlines would invest more in those variables.

Analysis shows that safety and security, price, on-time performance and punctuality, seat comfort and leg room, friendliness (by crew), credibility (trust), flight schedules and convenience, select seating, risk handling, modern equipment (new airplanes, new technology), helpfulness (by crew) and destination offers are the variables that would influence the attractiveness of an airline the most. Each variable scores higher than 5 as its mean, with a higher skewness and kurtosis compared to other variables. For price and safety and security, similar to the ideal flight experience, skewness and kurtosis are among the highest. This shows that most participants are equally distributed among those two variables.

The same goes for the other aforementioned variables. On-time performance and punctuality score a mean of 5.37, with a skewness of -1.639 and kurtosis of 3.121 whereas seat comfort and leg room score -1.459 and 1.933 for skewness and kurtosis respectively.

The standard deviation in this case differs from the one from the previous question. The standard deviation for improving attractiveness ranges from .904 to 1.586. What is similar to the previous question is that receiving flight info and ticket via chatbots (Facebook Messenger, WhatsApp), book a car or hotel when booking tickets, check-in via biometrics (facial recognition, fingerprints), service robots and the frequent flyer program score high on the standard deviation. Their means however are among the lowest, meaning participants do not believe improvements in such areas would increase the likeliness of choosing that airline.

The results are shown in table 9 below.

	F3 - On a scale from 1 = "less attractive" to 6 = "more attractive", which services and qualities do you think make an airline more attractive over other airlines, if it would improve/invest in those areas?	N	Mean	Std. Deviation	Skewness	Kurtosis
Price	Price	228	5.40	.917	-1.985	5.036
Reliability	Safety & Security	228	5.43	.938	-2.011	4.767
	On-time performance & punctuality	228	5.37	.904	-1.639	3.121
Responsibility	Risk handling	228	5.09	1.077	-1.061	0.723
	Fast/priority boarding	228	4.61	1.266	-0.673	-.189
	Fast disembarking	228	4.49	1.254	-.511	-.304
Assurance	Image & Reputation	228	4.83	1.149	-.794	.083
	Awareness (well-known airline)	228	4.58	1.156	-.567	-.145
	Credibility (trust)	228	5.17	.997	-1.363	1.852
Communication	Marketing	228	3.89	1.343	-0.192	-0.581
	Destination offers	228	5.01	1.122	-.960	.199

	Personal offers (special offers for you)	228	4.26	1.366	-.456	-.378
Crew	Helpfulness (by crew)	228	5.06	1.043	-1.086	0.939
	Friendliness (by crew)	228	5.20	1.016	-1.372	1.702
	Cultural etiquettes (by crew)	228	4.31	1.271	-.373	-0.385
	Languages (spoken by crew)	228	4.54	1.253	-.683	.123
Comfort	Flight schedules & convenience	228	5.16	1.042	-1.217	1.026
	Seat comfort & leg room	228	5.27	0.996	-1.459	1.933
	Modern equipment (new airplanes, new technology)	228	5.07	1.078	-1.195	1.250
Technology	In-flight entertainment (screen, newspapers)	228	4.86	1.131	-1.040	1.051
	Frequent flyer program	228	4.00	1.471	-.418	-.600
	Online check-in via app or website	228	4.77	1.285	-1.079	.809
In-flight Services	Meals	228	4.88	1.223	-1.009	.515
	Beverages	228	4.96	1.219	-1.121	.768
	Amenities (headset, sleeping mask)	228	4.43	1.290	-.498	-.350
Additional Services	Sustainability (extra options to reduce CO2 footprint)	228	4.76	1.300	-.829	-.060
	Service for disabilities (wheelchair, service dogs)	228	4.51	1.394	-.688	-.215
	Service for minors (guided boarding & disembarking)	228	4.29	1.424	-.449	-.562
	Select seating	228	5.11	1.073	-1.333	1.688
	Priority luggage return	228	4.34	1.309	-.455	-0.378
	Book a car or hotel when booking tickets	228	3.51	1.552	-.071	-0.932
Travel Innovation	Service robots	228	3.28	1.505	.091	-.781
	Receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp)	228	3.78	1.586	-.216	-.968
	Check-in via biometrics (facial recognition, fingerprints)	228	3.70	1.511	-.170	-.772

Table 9. Overview of variables influencing the attractiveness of airlines.

Looking at the variable blocks, shown in table 10, we see that, again, Price and Reliability score highest among the blocks. Higher than compared to what passengers believe is important when choosing an airline to fly with. Price and Reliability both score 5.40, meaning participants really value price and reliability and believe airlines can stand out if these areas get more attention. The skewness and kurtosis, -1.985 and 5.036 and -1.858 and 4.590 for Price and Reliability respectively, show that nearly all participants are clustered around higher scores. The low standard deviation for both blocks confirms that participants are not widely spread across the scale from 1 to 6. Comfort is third, scoring an average of 5.17 and a skewness and kurtosis of -1.220 and 1.246 respectively. Also for this block, participants put heavy emphasis on the higher numbers.

The other variable blocks, except for Travel Innovation, score rather high as well. Assurance, Crew, In-flight Services, and Responsibility all score above 4.70 on average, whereas Technology, Additional Services, and Communication all score above 4.3 on average. The lower

skewness and kurtosis show that participants are more equally distributed among the variables.

As previously stated, Travel Innovation, consisting of service robots, receiving flight info and ticket via chatbots (Facebook Messenger, WhatsApp), and check-in via biometrics (facial recognition, fingerprints), score a lower mean (3.59). The low skewness and kurtosis; -0.101 and -.479 respectively, show that participants are equally distributed on these variables.

F3 - On a scale from 1 = "less attractive" to 6 = "more attractive", which services and qualities do you think make an airline more attractive over other airlines, if it would improve/invest in those areas?	N	Mean	Std. Deviation	Skewness	Kurtosis
Price	228	5.40	0.917	-1.985	5.036
Reliability	228	5.40	0.833	-1.858	4.590
Responsibility	228	4.73	1.035	-0.806	.586
Assurance	228	4.86	0.946	-0.735	.281
Communication	228	4.39	0.976	-0.311	-.089
Crew	228	4.78	0.965	-0.853	.804
Comfort	228	5.17	0.892	-1.220	1.246
Technology	228	4.54	1.002	-0.624	.629
In-flight Services	228	4.75	1.097	-0.715	.050
Additional Services	228	4.42	1.005	-0.518	.395
Travel Innovation	228	3.59	1.338	-0.101	-.479

Table 10. Overview of blocks influencing attractiveness airlines.

4.3.4 Willingness-To-Pay Extra Analysis

Whether passengers were willing to pay extra for the variables, or if they should be included in the price, was asked by a simple "yes", "no", and "should be included in the price" scale. The expectation was that many of the variables should be included in the price, however, the outcome shows some different results.

Since safety and security, on-time performance and punctuality, risk handling, and credibility were some of the top variables in the previous two questions, it is rather obvious that also with WTP these variables score high on "should be included in the price". Around 80 percent state that the first three variables should be included in the price, whereas 65.8 percent say that credibility has to be included in the price. This is of course the most obvious answer as trust is something that has to be won by an airline.

Looking at Crew, we see that helpfulness, friendliness, cultural etiquettes, and languages spoken by crew all score high on "should be included in the price". Thus participants are not willing to pay extra for these variables and expect this to be included in the price. We see similar trends for In-flight Services and Technology. Meals and beverages should be included in the price, however participants do not expect amenities and are also not willing to pay extra for

amenities. Participants do state that an in-flight entertainment screen should be included in the price as well, as well as modern equipment.

Looking at Comfort, we see that flight schedules and convenience are mostly expected to be included in the price. The only variable that participants are willing to pay extra for is the extra seat comfort and leg room. Funnily enough, participants are not willing to pay extra for the selection of seats as that should be included in the price. Perhaps this is something airlines could make use of, by offering more leg space and comfort and including it in the price.

Interestingly enough, sustainability options should be included in the price already, but participants are willing to pay extra for such options. This is, however, closely followed by those that stated "no" as answer.

Other options such as priority luggage return, booking a car or hotel, service robots, receiving flight info and the ticket via chatbots, and check-in via biometrics (facial recognition, fingerprints) all show that participants are mostly not willing to pay extra for such services. Participants also do not expect them to be included in the price. Looking at the frequent flyer program, we see that participants are also not willing to pay extra for this. Also, the fact that an airline is a national airline is something participants are not willing to pay extra for, as well as personal offers.

The results are shown in table 11 below. Results are given in percentages.

	F2 - Would you be willing to pay extra for:	N	Yes	No	Should be included in the price
Reliability	Safety & Security	228	15.4	4.4	80.3
	On-time performance & punctuality	228	7.5	8.8	83.8
Responsibility	Risk handling	228	11.8	9.2	78.9
	Fast/priority boarding	228	25.4	49.1	25.4
	Fast disembarking	228	15.8	59.2	25
Assurance	Awareness (well-known airline)	228	8.8	51.8	39.5
	Credibility (trust)	228	12.3	21.9	65.8
Communication	Personal offers (special offers for you)	228	19.7	53.1	27.2
	National airline	228	12.7	59.6	27.6
Crew	Helpfulness (by crew)	228	5.7	15.8	78.5
	Friendliness (by crew)	228	6.1	14	79.8
	Cultural etiquettes (by crew)	228	2.6	36.4	61
	Languages (spoken by crew)	228	6.1	39.9	53.9
Comfort	Flight schedules & convenience	228	23.7	21.5	54.8
	Seat comfort & leg room	228	45.2	23.7	31.1

	Modern equipment (new airplanes, new technology)	228	20.6	30.3	49.1
Technology	In-flight entertainment (screen, newspapers)	228	16.2	40.4	43.4
	Frequent flyer program	228	7	60.1	32.9
	Online check-in via app or website	228	5.3	33.3	61.4
In-flight Services	Meals	228	26.8	28.5	44.7
	Beverages	228	21.9	25.4	52.6
	Amenities (headset, sleeping mask)	228	14.5	49.6	36
Additional Services	Sustainability (extra options to reduce CO2 footprint)	228	30.7	29.4	39.9
	Service for disabilities (wheelchair, service dogs)	228	12.3	29.4	58.3
	Service for minors (guided boarding & disembarking)	228	15.4	33.8	50.9
	Select seating	228	30.3	30.7	39
	Priority luggage return	228	25.9	57.5	16.7
	Book a car or hotel when booking tickets	228	20.2	70.2	9.6
Travel Innovation	Service robots	228	5.3	78.5	16.2
	Receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp)	228	4.8	61.4	33.8
	Check-in via biometrics (facial recognition, fingerprints)	228	7.9	67.1	25

Table 11. Overview showing which variables participants are willing to pay extra for.

4.3.5 Satisfaction of Previous Flight Analysis

The final question regarding the variable list, and asking whether participants were satisfied with the variables when it comes to their most recent flight, shows that only a few variables score above a 5 on average, but no variables were extremely unsatisfying. Nonetheless, one has to keep in mind that the variables were not filled in by all 228 participants as an option was added to this question stating that the variable was not relevant or applicable on the previous flight.

Participants were most satisfied with safety and security, risk handling, and friendliness (by crew). These variables scored means of 5.38, 5.06 and 5.05 respectively. Looking at the skewness and kurtosis, safety and security scores -1.229 and 1.516, showing that participants give the highest grades more frequently. Risk handling shows a skewness and kurtosis of -1.132 and .784, meaning participants are more skewed towards the higher grades, but are less equally distributed on the highest scores. Friendliness (by crew) scores -1.169 and 1.788 for skewness and kurtosis.

Other variables scoring relatively high compared to the rest are destination offers, languages (spoken by crew), online check-in via app or website, awareness (well-known airline), helpfulness (by crew), credibility (trust), on-time performance and punctuality, image and reputation, and cultural etiquettes (by crew). Concluding from this, we see that participants are rather satisfied with Crew; friendliness, helpfulness, languages, and cultural etiquettes. Means

of the aforementioned variables range between 4.78 and 4.99, with skewness leaning towards the higher grades, and between medium and high kurtosis.

Passengers were satisfied with price overall, awarding an average score of 4.89. The skewness of -9.50 shows most passengers lean towards the higher grades when it comes to price, indicating higher satisfaction, and the kurtosis of .866 shows that people are more equally distributed on price. However, price does not score among the highest variables whereas with importance of choosing an airline and attractiveness price scores much higher.

Interestingly enough it is not the innovative technologies that score lowest, but it is the sustainability options. Participants are most unsatisfied with the additional options to make the flight more sustainable. The sustainability (extra options to reduce CO2 footprint) variable scores a 3.54 as mean, and a -.244 and -.591 as skewness and kurtosis respectively. This clearly shows a gap with the expectations and what would make an airline stand out. This gap, among others, will be examined in the next sub-chapter.

Furthermore, looking at food, beverages, and amenities (headset, sleeping mask), we see that these three variables score lower than most other variables with means of 4.36, 3.87, and 3.75 respectively. This could be because on short haul flights most of the time food and beverages or amenities are not included, but it could also mean that participants are not extremely satisfied or unhappy about the fact that nothing is included.

The standard deviation for satisfaction ranges mostly between 1 and 1.5, with a few exceptions. Safety and security and friendliness (by crew) score .775 and .990 respectively, showing participants are most equal on these two variables. Amenities, meals, in-flight entertainment (screen, newspapers), and check-in via biometrics (facial recognition, fingerprint) have the highest standard deviation, ranging between 1.505 and 1.610. Looking at price, with a standard deviation of 1.078, most participants score most between 4 and 6 on the satisfaction scale, with 6 being the highest.

The results are shown in table 12 below.

	F6 - This is the final question with the following list. We're almost there. On your previous trip, how satisfied were you with the following items, on a scale from 1 = "very dissatisfied" to 6 = "very satisfied"?	N	Mean	Std. Deviation	Skewness	Kurtosis
Price	Price	218	4.89	1.078	-.950	.866
Reliability	Safety & Security	226	5.38	.775	-1.229	1.516

	On-time performance & punctuality	227	4.82	1.463	-1.309	.815
Responsibility	Risk handling	187	5.06	1.079	-1.132	.784
	Fast/priority boarding	203	4.54	1.372	-.815	-.134
	Fast disembarking	215	4.49	1.219	-.656	-.020
Assurance	Image & Reputation	222	4.78	1.117	-.862	.560
	Awareness (well-known airline)	218	4.95	1.070	-1.038	.941
	Credibility (trust)	218	4.94	1.050	-.981	1.092
Communication	Word-of-mouth (by relatives, friends)	171	4.67	1.158	-.654	.149
	Marketing	182	4.23	1.213	-.471	-.060
	Destination offers	206	4.99	1.177	-1.196	1.019
	Personal offers (special offers for you)	150	3.81	1.458	-.223	-.743
	National airline	159	4.53	1.404	-.738	-.238
Crew	Helpfulness (by crew)	224	4.94	1.068	-.932	.743
	Friendliness (by crew)	228	5.05	.990	-1.169	1.788
	Cultural etiquettes (by crew)	200	4.78	1.196	-.961	.715
	Languages (spoken by crew)	213	4.96	1.251	-1.315	1.373
Comfort	Flight schedules & convenience	221	4.72	1.319	-1.090	.706
	Seat comfort & leg room	226	4.23	1.302	-.536	-.147
	Modern equipment (new airplanes, new technology)	218	4.13	1.386	-.398	-.511
Technology	In-flight entertainment (screen, newspapers)	201	3.78	1.567	-.261	-.957
	Frequent flyer program	130	3.91	1.491	-.324	-.735
	Online check-in via app or website	195	4.96	1.259	-1.502	2.141
In-flight Services	Meals	186	3.87	1.576	-.404	-.830
	Beverages	212	4.36	1.491	-.849	-.137
	Amenities (headset, sleeping mask)	140	3.75	1.610	-.267	-.949
Additional Services	Sustainability (extra options to reduce CO2 footprint)	136	3.54	1.450	-.244	-.591
	Service for disabilities (wheelchair, service dogs)	82	4.37	1.222	-.740	.588
	Service for minors (guided boarding & disembarking)	82	4.16	1.356	-.417	-.234
	Select seating	203	4.41	1.433	-.757	-.233
	Priority luggage return	110	3.80	1.495	-.271	-.748
	Book a car or hotel when booking tickets	74	3.97	1.260	-.370	.067
Travel Innovation	Service robots	62	3.68	1.340	-.309	-.381
	Receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp)	93	4.19	1.447	-.589	-.364
	Check-in via biometrics (facial recognition, fingerprints)	69	4.03	1.505	-.424	-.742

Table 12. Overview showing which variables participants are most satisfied with on previous flight.

When we combine the variables into the blocks, we see that most participants are satisfied with Reliability, showing that airlines perform well in safety and security, and on-time performance and punctuality. Crew scores an average of 4.94, followed by Price and Assurance, scoring 4.89 and 4.88 respectively. Interestingly enough, the skewness and kurtosis for the blocks in table 13 show that participants are equally divided and distributed over the variable blocks. Most blocks score between 4.64 and 4.31 on average, namely Responsibility, Communication, Comfort, and Technology. In-flight Services scores the lowest mean of all, with 4.05. The

In-flight Services block consists of the meals, beverages, and amenities (headset, sleeping mask) variables. This shows that participants are much less satisfied with what is offered as on-board services compared to the other blocks.

Interestingly enough, Travel Innovation scores much higher on average (4.09) compared to the previous questions. This gap, among other, will be analyzed in the next sub-chapter.

F6 - This is the final question with the following list. We're almost there. On your previous trip, how satisfied were you with the following items, on a scale from 1 = "very dissatisfied" to 6 = "very satisfied"?	N	Mean	Std. Deviation	Skewness	Kurtosis
Price	218	4.89	1.078	-0.950	.866
Reliability	227	5.10	0.960	-1.081	.396
Responsibility	222	4.64	1.109	-0.808	.331
Assurance	223	4.88	0.971	-0.727	.206
Communication	223	4.55	0.973	-0.395	-.026
Crew	228	4.94	0.931	-0.858	.718
Comfort	226	4.36	1.069	-0.507	-.076
Technology	220	4.31	1.142	-0.448	.075
In-flight Services	214	4.05	1.395	-0.585	-.304
Additional Services	212	4.17	1.240	-0.461	-.211
Travel Innovation	107	4.09	1.406	-0.467	-.477

Table 13. Overview showing which blocks participants are most satisfied with.

4.3.6 Gap Analysis

There are two possible gaps. The first possible gap is the difference between importance of variables on ideal flight and satisfaction of variables on previous flight, and the other gap is the difference between the attractiveness of variables to make an airline stand out, and the satisfaction of variables on the previous flight. These gaps are measured by comparing means among the variables.

Later in this sub-chapter, the attractiveness vs. satisfaction gap is analyzed by also looking at what participants are willing to pay extra for.

Importance vs. Satisfaction

Looking the importance vs. satisfaction overview (rated from 1 to 6 with 6 being the highest), we see that mostly, passengers are satisfied with what is currently available and offered. A few variables stand out, we see that participants score price, safety and security, on-time performance, credibility (trust), destination offers, personal offers (special offers for you), flight schedules and convenience, seat comfort and leg room, modern equipment (new airplanes, new technology), in-flight entertainment (screen, newspapers), meals, beverages, sustainability (extra options to reduce CO2 footprint), and select seating lower on satisfaction than what

participants would like to see on their ideal flight. Among these, seat comfort and leg room, and sustainability options stand out, as these two score .66 and .52 respectively. This shows that participants see a lack when it comes to comfort, which becomes more obvious in sub-chapter 4.4, and a lack in sustainability options, also discussed in sub-chapter 4.4. Regarding comfort, we also see that participants are less satisfied with flight schedules and convenience, and modern equipment (new airplanes, new technology) compared to what participants would like to see on their ideal flight.

When it comes to price and safety in general, participants see differences among these variables; price, safety and security, on-time performance and punctuality, and credibility (trust). The gaps among these variables lie between .14 and .31. Interestingly enough, meals and beverages also score below ideal. This is also discussed in sub-chapter 4.4, but it shows already that participants see a lack of food and beverages on flights.

There are also variables with which participants are more satisfied than is expected on their ideal flight, especially among variables regarding the crew. Helpfulness (by crew), friendliness (by crew), cultural etiquettes (by crew) and languages (spoken by crew) all score higher on satisfaction than on importance. The same goes for the responsibility of airlines variables; risk handling, fast/priority boarding, and fast disembarking. Communication also scores higher in satisfaction than importance on ideal flight. This block shows that marketing, word-of-mouth (by relatives, friends), and an airline being a national carrier, is satisfactory to participants already. Destination offers and personal offers (special offers for you) are two variables that could be improved, as satisfaction scores lower than importance. Technology is also not that important to participants, but in-flight entertainment is. Participants are less satisfied with this than is currently offered, showing a gap of 0.42.

Additional Services and Travel Innovation show that most participants are more than satisfied with what is currently offered, but the importance and satisfaction scores are rather lower than for other variables in general. Only select seating stands out; importance scores 4.50 on average whereas currently participants only award 4.41 on average for satisfaction. The gap between variables can be found in appendix B.

When comparing blocks, we see that there is not such a big gap between what participants find important and what participants are satisfied with. Comfort and price, however, show a gap of 0.44 and 0.30 respectively, which are the largest gaps when it comes to what

participants are less satisfied with than what is important with choosing an airline. Travel Innovation, Additional Services, Crew and Communication seem on point, with participants scoring the blocks higher in satisfaction than what is important for choosing an airline. As the individual variables show a more detailed overview of where the gaps are, the following matrices shown in figure 4, 5 and 6, take the individual variables into consideration rather than scoring only the blocks. The gaps measured among blocks can be found in table 14 below.

F1 - On a scale from 1 = "not at all important" to 6 = "very important", how important are the following items for you when it comes to choosing an airline?	N			Importance	Satisfaction	Gap
Price	228	/	218	5.189	4.885	0.30
Reliability	228	/	227	5.177	5.097	0.08
Responsibility	228	/	222	4.316	4.642	-0.33
Assurance	228	/	223	4.734	4.880	-0.15
Communication	228	/	223	4.012	4.549	-0.54
Crew	228	/	228	4.396	4.944	-0.55
Comfort	228	/	226	4.798	4.360	0.44
Technology	228	/	220	4.012	4.311	-0.30
In-flight Services	228	/	214	4.077	4.051	0.03
Additional Services	228	/	212	3.596	4.169	-0.57
Travel Innovation	228	/	107	2.708	4.092	-1.38

Table 14. Blocks overview showing the gaps between importance and satisfaction.

The matrix below, figure 4, shows the individual variables plotted along the importance and satisfaction axes. The importance axis ranks the items from the top item (safety and security) with a score of 5.52 to the lowest item (service robots) with a score of 2.36. The satisfaction axis ranks items from left to right, with right being the highest. The safety and security variable is the one with the highest satisfaction, namely 5.38, whereas the variable with the lowest satisfaction rate is sustainability, with 3.54. The middle point of the axes are the averages of satisfaction and importance of all variables.

This divides the matrix into four areas, which can be described as follows. The green area is the area with the important but satisfying variables. The variables here are important to participants, but participants are also satisfied with what is currently offered. We can see that safety and security, the variable scoring the highest on both axes, is very important to participants, but airlines are doing a good job when it comes to offering safety and security. Helpfulness (by crew) shows a gap which indicates that participants are already more satisfied with what is currently offered than what is necessary for a participant to select an airline. Looking at price, we see that participants find price very important, but airlines are already offering satisfying prices. The same goes for credibility, on-time performance and punctuality, destination

offers, and flight schedule and convenience. Variables with which participants are more satisfied with than how important they are risk handling, friendliness (by crew), online check-in via app or website, image and reputation, awareness (well-known airline), and word-of-mouth (by relatives, friends).

Looking at the yellow area, we see variables that currently stand out and are not as important for participants in the selection of their preferred airline. We see that fast/priority boarding scores well on satisfaction, but lower than average on importance. This suggests that airlines are currently offering a better product than what customers find important when selecting a flight and airline. This also goes for fast disembarking, cultural etiquettes (by crew), languages (spoken by crew), and national airline. For all these variables, airlines are currently offering a better product than is important for participants.

The next part, the blue corner, shows with which variables participants are currently least satisfied, but that are also not important for participants when it comes to selecting an airline. However, if trends change and these variables become more important to participants - e.g. sustainability (extra options to reduce CO2 footprint) or personal offers (special offers for you) – perceived airline services could worsen. Sustainability in this case is a variable that scores very low on satisfaction, but is still below average when it comes to importance. It is on the other hand close to the red corner. Together with personal offers (special offers for you), these two variables are the only two variables that score higher on importance than what participants are currently satisfied with. Variables such as amenities (headset, sleeping mask), priority luggage return, service for minors (guided boarding and disembarking), marketing, frequent flyer program, receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp), check-in via biometrics (facial recognition, fingerprints), book a car or hotel when booking tickets, and service robots all score higher on current satisfaction than importance, meaning participants are still more satisfied with what is currently offered.

The final part, the red corner, are the variables that score below standard. Participants find these variables important when selecting an airline, but are currently unsatisfied with what is offered by airlines. We see that in-flight entertainment (screen, newspaper) and meals are the lowest scoring variables on satisfaction whereas seat comfort and leg room, modern equipment (new airplanes, new technology), select seating, and beverages all score lower on satisfaction than what participants find important with selecting an airline. This is the area in

which airlines have to improve, to offer passengers better service, and can be seen as a critical zone.

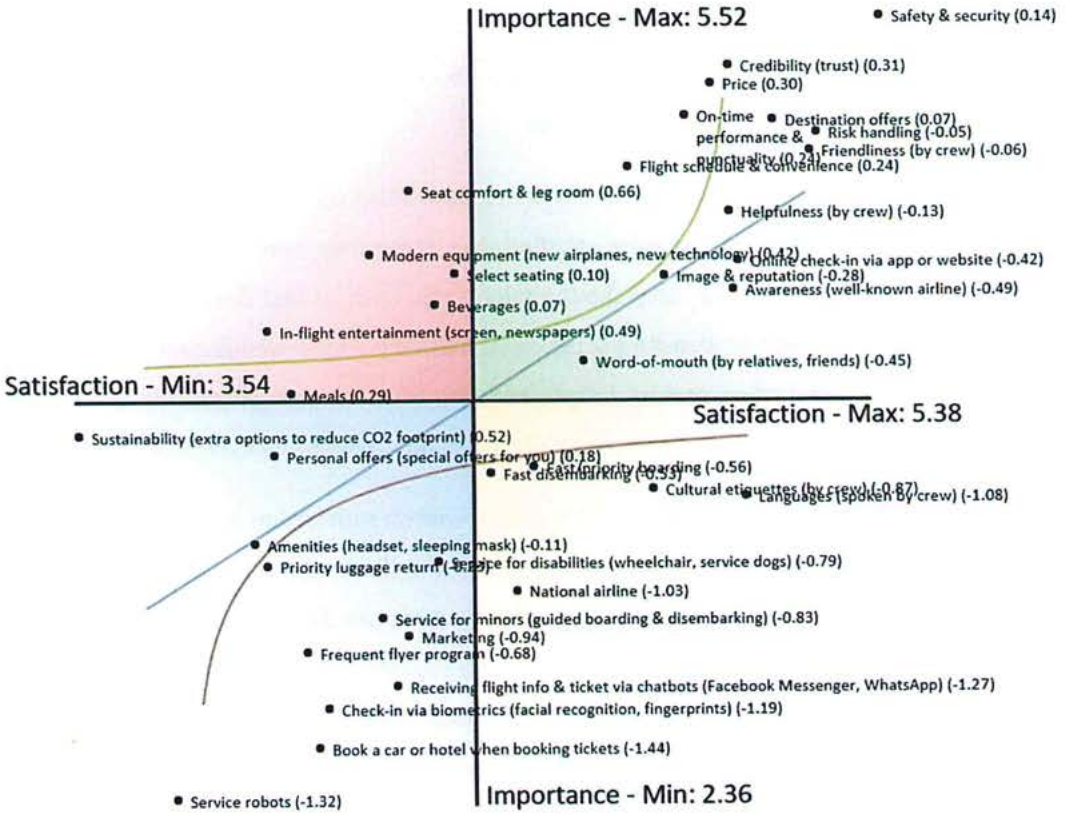

Figure 4. Gap matrix of importance versus satisfaction, showing individual variables.

Attractiveness vs. Satisfaction

Looking at the variables that would influence the attractiveness of airlines versus satisfaction of previous flight (rated from 1 to 6 with 6 being the highest), we see a much larger gap. The gap here shows that participants are much less satisfied with what is currently offered, compared to what participants believe would make an airline stand out, would it invest in those areas. The variables that stand out are price, on-time performance and punctuality, seat comfort and leg room, modern equipment (new airplanes, new technology), in-flight entertainment (screen, newspapers), meals, beverages, amenities (headset, sleeping mask), sustainability (extra options to reduce CO2 footprint), select seating, and priority luggage return.

Satisfaction of price scores on average 0.51 lower than what participants believe price could do to make an airline stand out; a better price-quality ratio as discussed in sub-chapter

4.3.8. The most interesting variables that stand out are seat comfort and leg room, in-flight entertainment (screen, newspapers), meals, and the one that shows the largest gap: sustainability (extra options to reduce CO2 footprint). The sustainability variable gap of 1.22 shows that passengers believe an airline could progressively become more attractive would the airline invest in sustainability options. Currently, sustainability scores 3.54 on average on satisfaction, but participants score the variable as 4.76 on attractiveness. The other variables mentioned before also show a gap of 1 or higher.

As opposed to the importance vs. satisfaction gap, there are fewer variables with which participants are already more satisfied than those they believe make an airline stand out. And some of the variables only show a minor gap, such as fast disembarking (-0.01), and online-check-in via app or website (-0.19), as well as awareness (well-known airline), marketing, book a car or hotel when booking tickets, service robots, receiving flight info and ticket via chatbots (Facebook Messenger, WhatsApp), and check-in via biometrics (facial recognition, fingerprints).

Two other variables that scored lower on satisfaction are cultural etiquettes (by crew) and languages (spoken by crew). Interestingly, these two show large gaps when it comes to attractiveness, thus participants are already more satisfied with these two than is necessary for an airline to stand out. Though, helpfulness (by crew) and friendliness (by crew) do score lower on satisfaction, showing that airlines can improve by investing in the helpfulness and friendliness of the crew. Gap between variables are shown in appendix C.

The gaps between the blocks when it comes to attractiveness and satisfaction show entirely different results than the importance vs. satisfaction gaps. The gaps between attractiveness and satisfaction are much larger here, showing that airlines could stand out if they focused more on several blocks. The number one gap is visible with Comfort, which scores a difference of 0.81. This shows that, similar to the importance gap, participants are dissatisfied with the current comfort on board and that airlines could stand out if they improved their comfort. The second largest gap is with In-flight Services, which consists of meals, beverages, and amenities (headset, sleeping mask). The third gap is with Price, which has a difference of 0.51. Finally, Reliability, Additional Services, and Technology show a difference of 0.30, 0.25 and 0.23 respectively.

Looking at what participants are already satisfied with and what would not make an airline stand out more, we see that Travel Innovation, Crew, Communication, and Assurance score lower on attractiveness than on satisfaction.

As we can see, there are larger and more gaps visible between attractiveness and satisfaction than between importance and satisfaction. For the matrix that follows, the individual variables are shown as this gives a more detailed overview than only showing the blocks. The block gaps are given in table 15.

F3 - On a scale from 1 = "less attractive" to 6 = "more attractive", which services and qualities do you think make an airline more attractive over other airlines, if it would improve/invest in those areas?	N			Attractiveness	Satisfaction	Gap
Price	228	/	218	5.399	4.885	0.51
Reliability	228	/	227	5.399	5.097	0.30
Responsibility	228	/	222	4.731	4.642	0.09
Assurance	228	/	223	4.861	4.880	-0.02
Communication	228	/	223	4.387	4.549	-0.16
Crew	228	/	228	4.777	4.944	-0.17
Comfort	228	/	226	5.165	4.360	0.81
Technology	228	/	220	4.542	4.311	0.23
In-flight Services	228	/	214	4.754	4.051	0.70
Additional Services	228	/	212	4.418	4.169	0.25
Travel Innovation	228	/	107	3.586	4.092	-0.51

Table 15. Blocks overview showing the gaps between attractiveness and satisfaction.

Looking at the matrix for variables scaled on the attractiveness and satisfaction axes, we see some different results than the previous matrix. This matrix, figure 5 below, shows which variables are attractive and currently satisfactory, and which variables could make an airline stand out, especially when the current satisfaction rate is low. The attractiveness axis is ranked from 5.43 to 3.28, with safety and security being the most attractive variable and service robots being the least attractive, whereas satisfaction is ranked from 5.38 to 3.54, similar to the previous matrix.

Starting with the green part, here we find variables that are currently satisfactory to participants and also score highly when it comes to what participants believe would make an airline stand out. Thus airlines are currently doing a good job when it comes to safety and security, price, on-time performance and punctuality, friendliness (by crew), credibility (trust), flight schedules and convenience, risk handling, helpfulness (by crew), destination offers, image and reputation, and online check-in via app or website. The only variable scoring higher on satisfaction than attractiveness, is the online check-in via app or website variable. This variable makes

an airline stand out, but currently participants are more than satisfied with what is offered. The other variables all score lower in satisfaction than attractiveness, but since all variables in the green area score above average for both axes, airlines are currently doing a good job providing these as services.

The yellow part, similar to the previous matrix, shows which variables already score more than satisfactorily. Looking at awareness (well-known airline) and languages (spoken by crew), we see that, currently, participants are more satisfied with these variables than they actually make an airline more attractive. This also goes for fast disembarking, whereas fast/priority boarding is the only variable that could make an airline more attractive, but not as much as variables in the red or green areas. These variables in the yellow part are the variables where, if airlines were to invest in them, it would not influence how attractive an airline becomes.

The blue part includes variables that score below average on satisfaction, but are unnecessary for participants to make an airline more attractive. Variables such as service for disabilities (wheelchair, service dogs), amenities (headset, sleeping mask), priority luggage return, service for minors (guided boarding and disembarking), personal offers (special offers for you), and frequent flyer program are variables where participants are less satisfied compared to how attractive an airline would be if it offered those products and services better. The variables marketing, receiving flight info and ticket via chatbots (Facebook Messenger, WhatsApp), check-in via biometrics (facial recognition, fingerprints), book a car or hotel when booking tickets, and service robots are variables that score lower in satisfaction compared to how attractive these variables would make an airline. As these variables all score below average on satisfaction and attractiveness, they would not boost an airline much if satisfaction increases. If trends shift, however, and these variables become more attractive to passengers, airlines that do invest in these areas to a satisfactory level would become more attractive.

The last corner, the red section, is the section that shows which variables score below average on satisfaction, but could make an airline stand out from the competition. This is the corner which airlines have to invest in and cater better to participants to become more attractive. The red corner shows seat comfort and leg room as the main variable for an airline to become more attractive. Currently, participant satisfaction with the offer of seat comfort is below average; thus, airlines should invest more in this area. This also goes for select seating, as the gap here is also large. Meals and beverages would also make an airline stand out from competi-

tion as currently participants are less satisfied with these variables. This also goes for modern equipment (new airplanes, new technology) and in-flight entertainment (screen, newspapers) variables. Interestingly, sustainability (extra options to reduce CO2 footprint) scores the lowest on satisfaction but is a variable that could improve the attractiveness of airlines.

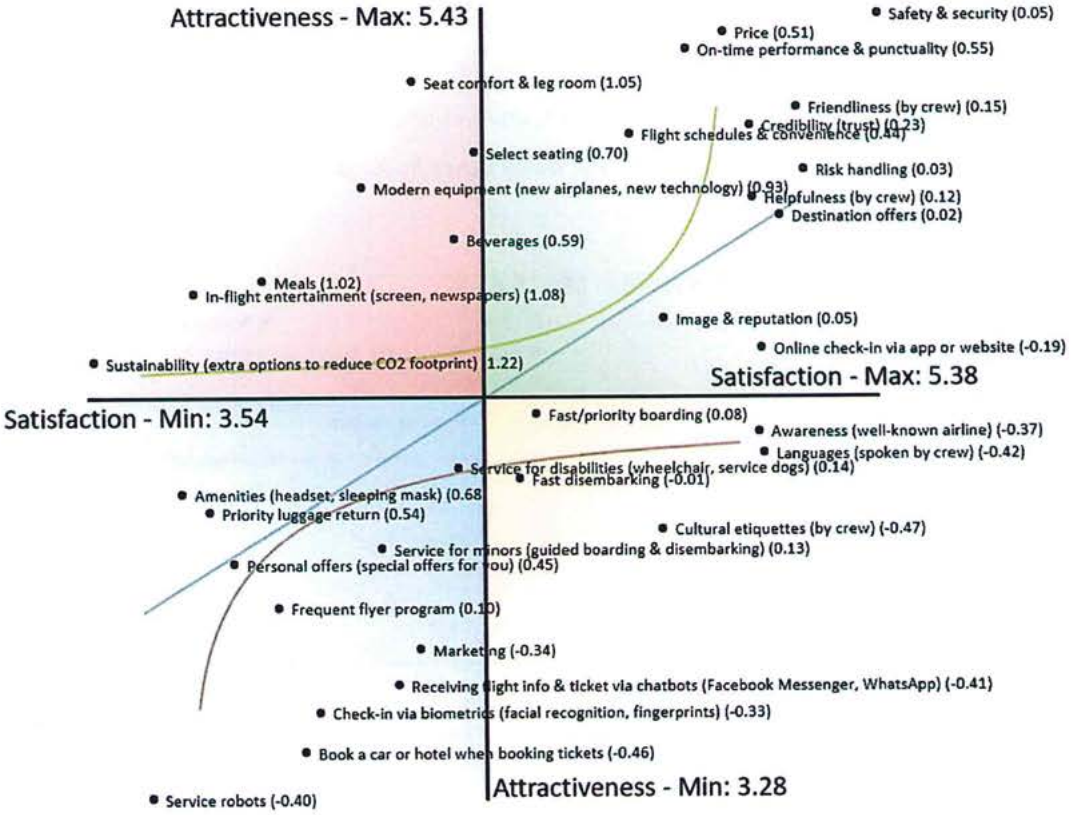

Figure 5. Gap matrix of attractiveness versus satisfaction, showing individual variables.

Attractiveness vs. Satisfaction vs. Willingness-To-Pay

The final matrix is a matrix that combines the attractiveness vs. satisfaction matrix with the outcome of the WTP question. Variables exempt from this question are price, image and reputation, and marketing. The outcome is shown in figure 6. Variables which should be included in the price are marked as bold and with a dark red color, whereas the variable that people are willing to pay extra for is underlined and made bold.

As we can see, there is only one service that participants are willing to pay extra for, which is seat comfort and leg room. Interestingly enough, all variables in the blue area are items that should be included in the price, as well as the items in the green area. All Crew vari-

ables are services that should be included in the price, as well as service for minors (guided boarding and disembarking).

This matrix clearly shows that airlines are currently offering services that should be included in the price, with which participants are already satisfied. But looking at the variables in the red area, there certainly are extra services and options that participants do not want to miss when selecting an airline and flying with that airline. Participants do not want to pay extra for seat selection, meals, beverages, and in-flight entertainment. These services should be provided as a standard. This, among many other findings, will be discussed in the conclusion that follows in chapter 5.

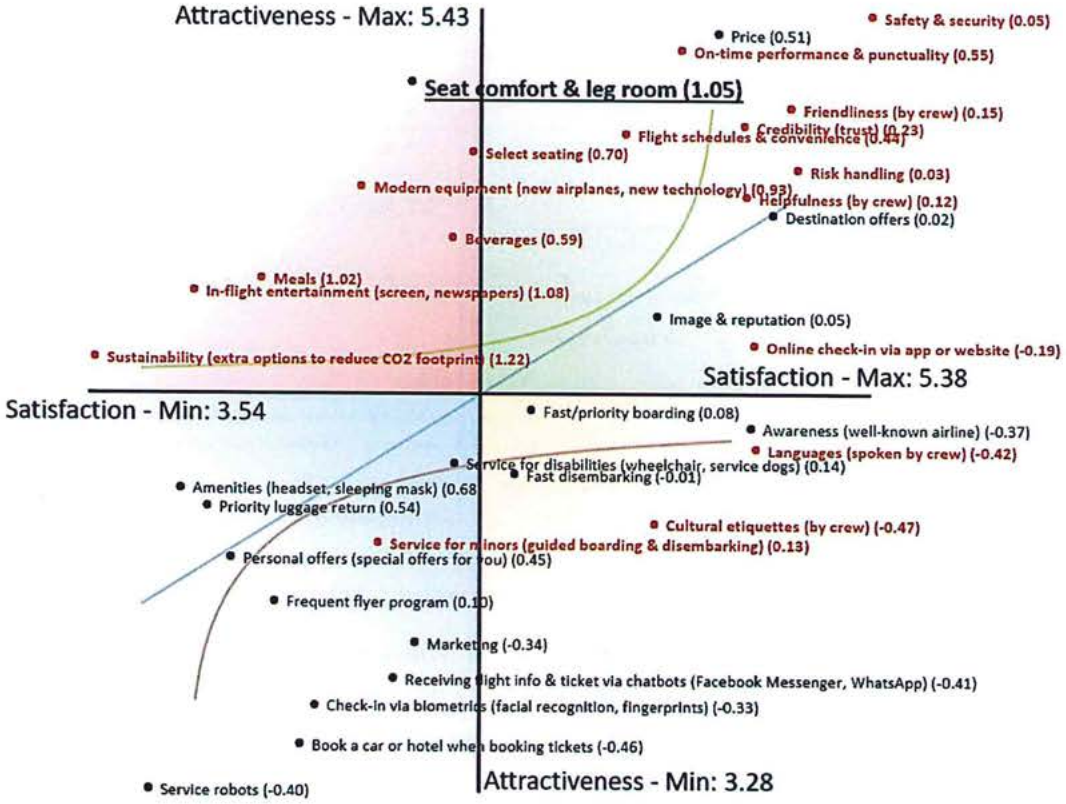

Figure 6. Gap matrix combining attractiveness, satisfaction, and WTP.

Kano Model Similarities

The lines represented in figures 4, 5, and 6, show similarities to the Kano model developed in the 1980s. However, in the matrices above the lines represent satisfaction and consumer behavior. The green line represents what happens with satisfaction would airlines focus on the

critical variables that are important and attractive to passengers. Would airlines improve those variables, passengers become more satisfied and airlines can stand out from the competition.

The red line represents the scenario when airlines invest in those variables that are currently unattractive and unimportant for consumer behavior. Satisfaction could improve but it would not change the variables to become important or attractive, and be part of the green area. That is what the grey line is for: the trends. Would passengers become interested in different variables, with the right investments and care for those variables airlines could see them move into the green area.

4.3.7 Model Analysis

Running a multiple regression analysis with the 12 blocks as independent variables and the overall satisfaction variable; "how much do you agree with the following statements regarding your previous flight: I am very satisfied with the overall experience", as dependent variable gives us some interesting outcomes.

The data is significant according to the ANOVA table ($p < 0.001$) thus the 'R' and 'Adjusted R Square' gives us significant outcomes on how to answer overall satisfaction. The R in this case is .717, meaning there is a high correlation between the blocks and overall satisfaction. The 'Adjusted R Square' is however only .450, meaning the model only gives us a moderate prediction of 45 percent. Values can be found in table 16 below.

R	.717
Adjusted R Square	.45
ANOVA Significance	.000

a. Dependent Variable: F7 - How much do you agree with the following statements regarding your previous flight: I am very satisfied with the overall experience

b. Predictors: (Constant), Travel Innovation, Reliability, In-flight Services, F6 - This is the final question with the following list. We're almost there. On your previous trip, how satisfied were you with the following items, on a scale from 1 = "very dissatisfied" to 6 = "very satisfied"? Price , Assurance, Additional Services, Crew, Comfort, Communication, Responsibility, Technology

Table 16. Multiple regression table showing R values and ANOVA value regarding overall satisfaction.

As the significance level of the coefficients are not something to write home about, some of the independent variables should be left out. Interestingly enough the blocks that can be left out are Price, Responsibility, Assurance, Communication, Crew, Comfort, Technology, In-flight Services, and Additional Services, leaving only Reliability and Travel Innovation in the multiple regression model. Since there is a high correlation between the blocks and overall satisfaction, and there is a moderate prediction percentage, the blocks will stay for now to continue the analysis as there are some other interesting outcomes.

The two blocks that are significant, Reliability and Travel Innovation, indicate that variables such as helpfulness (by crew), friendliness (by crew), cultural etiquettes (by crew), and languages (spoken by crew), and the variables service robots, receiving flight info and ticket via chatbots (Facebook Messenger, WhatsApp), and check-in via biometrics (facial recognition, fingerprints) are the best predictors to see whether someone is satisfied with the overall satisfaction. Looking at the 'Standardized Coefficients Beta' we see that Crew would improve satisfaction by .205, whereas Travel Innovation improves satisfaction by .469.

Looking at correlations, we see some moderate to high correlations and intercorrelations among the variables. Looking at overall satisfaction, we see the highest correlations between Crew and Travel Innovation (.539 and .525 respectively). Comparing this to the intercorrelations, we see that reliability and responsibility go hand-in-hand with a correlation of .698 and .629, whereas Communication variables correlate to Assurance and vice versa (.705). The highest intercorrelation can be found among Technology and In-flight Services (.804).

All data regarding overall satisfaction and the variable blocks' correlations and coefficients can be found in appendix D.

Looking at the multiple regression model for loyalty, which is the variable made up of three items; "I would definitely use this airline in the future again", "I would recommend this service to my family/friends", and "I would spread positive word-of-mouth of this airline", we see similar results. The ANOVA outcome shows a significance level of .000, meaning there is a significant correlation between the 12 blocks and loyalty, whereas the R score is .704 and the 'Adjusted R Square' is .429, meaning we can predict loyalty for only 43 percent. The R score on the other hand shows a high correlation between the blocks and loyalty. Outcome is shown in table 17 below.

R	.704
Adjusted R Square	.429
ANOVA Significance	.000

a. Predictors: (Constant), Travel Innovation, Reliability, In-flight Services, F6 - This is the final question with the following list. We're almost there. On your previous trip, how satisfied were you with the following items, on a scale from 1 = "very dissatisfied" to 6 = "very satisfied"? Price , Assurance, Additional Services, Crew, Comfort, Communication, Responsibility, Technology
b. Dependent Variable: F7 - Loyalty Sum Mean

Table 17. Multiple regression table showing R values and ANOVA value regarding loyalty.

The coefficients show us that most of the blocks can be left out for loyalty also. The blocks that are significant are Crew, In-flight Services, and Travel Innovation. But also in this

case, since the correlation is high and the data significant, we will leave the rest of the blocks in.

The significant blocks consist of the variables helpfulness (by crew), friendliness (by crew), cultural etiquettes (by crew), languages (spoken by crew), meals, beverages, amenities (headset, sleeping mask), service robots, receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp), and check-in via biometrics (facial recognition, fingerprints). These variables influence loyalty the most. The coefficients matrix shows that Crew improves loyalty by .284, whereas In-flight Services and Travel Innovation improve loyalty by .273 and .245 respectively.

The correlations overview shows that Crew, Responsibility, Assurance, and Comfort have the highest correlations when it comes to loyalty (.571, .523, .521 and .521 respectively). Significant intercorrelations can be found between Responsibility and Reliability (.698), Assurance and Communication when it comes to Responsibility (.629 and .658), Communication and Assurance (.705), and In-flight Services and Technology (.804).

Data regarding regression between the 12 blocks and loyalty can be found in appendix E.

4.3.8 Post Analysis

The post analysis looks at whether there are significant differences between segments of participants and the variable lists. The segments are based on gender, age, and flight frequency. Furthermore, the post analysis also investigates the first question participants filled in which categorizes participants into different innovator groups.

Looking at gender, we see there are a few significant differences between the genders when it comes to what participants find most important when choosing an airline. The variables that show significant differences are safety and security, risk handling, personal offers (special offers for you), and national airline. Looking at the means, we see that females put more emphasis on safety and security (5.62 versus 5.37 for males), score risk handling higher than males (5.17 versus 4.79), prefer personal offers more than males (4.05 versus 3.91), and rather fly a national airline (3.59 versus 3.40). When it comes to variables that make an airline more attractive, we see that only destination offers has a significant difference between genders. It shows that females believe an airline would be more attractive if it offered better and more destinations (5.19 versus 4.76). The final question, whether participants were satisfied

with their previous flight, shows a significant difference among fast disembarking, flight schedules and convenience, amenities (headset, sleeping mask), and service for disabilities (wheelchair, service dogs). Males were overall more satisfied with fast disembarking (4.68 versus 4.36 for females), flight schedules and convenience (4.81 versus 4.65 for females), and also with amenities (headset, sleeping mask), which scored 4.05 versus a mean of 3.55 among females. The service for disabilities (wheelchair, service dogs) shows only a small gap with a mean of 4.39 for males and 4.35 for females. The gender significance tests can be found in appendix F.

The age categories show significant differences among several variables; namely safety and security, on-time performance and punctuality, fast/priority boarding, fast disembarking, image and reputation, awareness (well-known airline), credibility (trust), marketing, destination offers, personal offers (special offers for you), national airline, languages (spoken by crew), flight schedules and convenience, seat comfort and leg room, modern equipment (new airplanes, new technology), amenities (headset, sleeping mask), sustainability (extra options to reduce CO2 footprint), service for disabilities (wheelchair, service dogs), service for minors (guided boarding and disembarking), select seating, priority luggage return, book a car or hotel when booking tickets, and check-in via biometrics (facial recognition, fingerprints). For these variables, we see that the 55+ group is most concerned about safety and security when choosing an airline, whereas the 25-34 age group puts the least emphasis on this variable. The same goes for on-time performance and punctuality, where the 55+ group scores highest. The 35 to 44 year olds in this case put the least importance on this. The oldest age group also scores fast/priority boarding as most important as well as fast disembarking, awareness (well-known airline), credibility (trust), marketing, personal offers (special offers for you), national airline, languages (spoken by crew), sustainability, both service for disabilities (wheelchair, service dogs) and service for minors (guided boarding and disembarking), select seating, priority luggage return, book a car or hotel when booking tickets, and check-in via biometrics (facial recognition, fingerprints). This shows that the older participants would rather not spend much time at the airport, in the airplane, and with disembarking. The 45-54 year old category scores highest on image and reputation, flight schedule and convenience, seat comfort and leg room, modern equipment (new airplanes, new technology), and amenities (headset, sleeping mask). Destination offers are most valued by the category 35-44.

When it comes to the variables making an airline more attractive, we see significant differences between age groups on on-time performance and punctuality, risk handling,

fast/priority boarding, friendliness (by crew), languages (spoken by crew), sustainability (extra options to reduce CO2 footprint), service for disabilities (wheelchair, service dogs), service for minors (guided boarding and disembarking), select seating, book a car or hotel when booking tickets, and service robots. Again, we see that the oldest age group scores highest on many variables; on-time performance and punctuality, risk handling, fast/priority boarding, friendliness (by crew), languages (spoken by crew), service for minors (guided boarding and disembarking), and select seating. Interestingly enough, for attractiveness, sustainability (extra options to reduce CO2 footprint) scores highest among the youngest group, even though this is not something the youngest group takes into consideration most when selecting an airline. Furthermore, the youngest age group also rate service robots, book a car or hotel when booking tickets, and service for disabilities (wheelchair, service dogs) highest.

Finally, the question whether participants were satisfied with variables on their previous flight shows significant differences among price, safety and security, on-time performance and punctuality, risk handling, fast/priority boarding, destination offers, flight schedules and convenience, modern equipment (new airplanes, new technology), and sustainability (extra options to reduce CO2 footprint). The age categories significance tests can be found in appendix G.

The next segment analysis is based on the flight frequency of participants. When it comes to why participants choose an airline, we see significant differences with variables such as image and reputation, helpfulness (by crew), languages (spoken by crew), flight schedules and convenience, seat comfort and leg room, frequent flyer program, online check in via app or website, select seating, priority luggage return, and book a car or hotel when booking tickets. Interestingly, the group that flew 11 times or more scores highest on awareness (well-known airline), helpfulness (by crew), flight schedules and convenience, frequent flyer program, online check-in via app or website, select seating, and priority luggage return, but not on languages (spoken by crew), seat comfort and leg room, and book a car or hotel when booking tickets. For attractiveness, there are only significant differences between frequent flyer program, online check-in via app or website, select seating, priority luggage return, and receiving flight ticket via chatbots (Facebook Messenger, WhatsApp), all of which are scored highest among the travelers travelling most frequent (11 times or more).

The final list, whether participants were satisfied with the variables on their previous flight, shows significant differences among online check-in via app or website and priority lug-

gage return. Online check-in via app or website scored highest with the 11 times or more frequent flyers, whereas priority luggage return was scored highest among the 2-5 times flyers. Significance tests based on flight frequency can be found under appendix H.

Looking at short haul versus long haul participants, we see some significant differences among participants when it comes to satisfaction with the previous flight. In-flight entertainment (screen, newspapers), meals, beverages, amenities (headset, sleeping mask), service for disabilities (wheelchair, service dogs), and select seating are the variables which show significant differences when it comes to short haul or long haul flights. As short haul flights often offer fewer services (no screen, no meals, beverages, amenities, or select seating), the differences could mainly be an effect of not having these services on board. As we see, long haul flights score in-flight entertainment (screen, newspapers) higher, as well as meals, beverages and amenities (headset, sleeping mask), and select seating. The only variable scoring higher among short haul flight participants is the service for disabilities (wheelchair, service dogs) variable. The significance tests for type of flight are found under appendix I.

The final analysis shows how innovator types (1 = Non Innovators, 2 = Conservatives, 3 = Tryouts, and 4 = Heavy Innovators) score on the different questions. The innovator types are based on the first question that is asked; "how do you feel about the following items?" The items list for this question is; "I am eager to try new products on the market", "I am curious about trying products that I have never used", "I enjoy trying unusual products", "I do extensive research before acquiring new products", "I make careful decisions about what I want to buy", "Acquiring new products makes me happier", "Using new products gives me a sense of personal enjoyment", "I enjoy using new products that make me a visionary leader", "I prefer to try new products with which I can stand out among my friends", and "I like to own a new product that distinguishes me from others". The groups 1 until 4 are based on 4 quartiles.

When it comes to selecting an airline, the groups have significant differences on image and reputation, awareness (well-known airline), word-of-mouth (by relatives, friends), marketing, personal offers (special offers for you), friendliness (by crew), cultural etiquettes (by crew), frequent flyer program, online check-in via app or website, and priority luggage return. Interestingly enough, Travel Innovation variables do not seem to have any significant difference among them. It seems that the Heavy Innovators score highest on image and reputation, awareness (well-known airline), word-of-mouth (by relatives, friends), marketing, personal offers (special offers for you), friendliness (by crew), cultural etiquettes (by crew), frequent

flyer program, online check-in via app or website, and priority luggage return. In other words, the groups score significantly differently on the variables. Looking at what makes an airline more attractive, the only significant difference can be found among cultural etiquettes (by crew), which also scores highest among the Heavy Innovators.

Among the satisfaction variables we finally see a significant difference with price, which scores the highest mean rank among Conservatives. Furthermore, there are significant differences among fast disembarking, cultural etiquettes, languages (spoken by crew), and sustainability (extra options to reduce CO2 footprint). All variables, except price, score highest with the Heavy Innovators.

The outcome of these analyses can be found in appendix J.

4.3.9 Participant Recommendations

One part of the survey was to find out whether participants would change something or add something to their ideal flight experience, and another question asked participants if they had any other general comments for airlines. The outcome of these questions are interesting as they cover some of the concerns visible from the analysis.

First of all, an analysis of the question whether participants would add anything to their ideal airline experience, making it more optimal to what their wishes are, shows that most people would like to see better services, some participants commented "friendly staff", "hand luggage handling", "more efficient security at airports", "cheerful cabin crews", and "personalized service". Service could be more personalized, more efficient, and staff could be friendlier according to participants. This is followed by better time management (more efficient network, less time spent at airports, no delays), and comfort. Participants would like to see more comfortable seats, more space, or "standing places and sleeping beds" and "more space for hand luggage" as some write about. Interestingly enough, even though safety and security scores high on perceived quality, people do keep repeating that safety is one of the most important aspects. "I can tolerate any service- especially at the low cost flights- as long as I feel safe" and just "safety" are mentioned often.

Other additional services or improvements mentioned are better food and drink quality; mainly free drinks and food on board and allergy free or vegan food options, better facilities; cleaner airplanes, Wi-Fi on board, better screens, and phone and laptop charging points. Some participants would like to see family dedicated sections in airplanes and quieter children,

whereas others would like to see more options included in the price already (selection of seats, more hand luggage included). Higher efficiency with boarding, better communication of delays, gate changes, flight times or other news is highly appreciated and participants would like to see better risk and complaint handling.

Prices are, as expected, also mentioned. Participants would like to see better price-quality ratios and lower prices in general.

Looking at the second question, asking whether participants have any comments for airlines, we again see that participants would like to see better services. "Care for its customers" or "focus on better services" is what some participants write about. Furthermore, better food and drink quality is appreciated together with better time management and better risk and complaint handling. Also, prices are again a big topic among participants for this question. They should decrease, but service should not suffer from this. But participants are also wary about not understanding the point of all price components and how prices could be so cheap, but extra payment is necessary for every other additional service.

An interesting outcome of this open question is the fact that participants are not eager to fly Ryanair. One participant wrote "Ryanair and co. are the worst that has happened to humanity- their service is unbearable", whereas two other participants wrote that Ryanair is horrible. This stands out as no other airlines were mentioned.

4.3.10 Additional Questions

One of the additional questions was regarding the fact that recently more and more low cost carriers are opening its doors to serve passengers. And because low cost carrier Ryanair has been in the news quite often because of their bad PR; closing routes (Kate, 2018; fvw, 2018), firing pilots (Economy Team, 2018), bad communication (Thomas, 2019), pollution (BBC, 2019), and other issues, questions arise on whether low cost carriers are actually wanted and preferred over full service airlines.

As already seen from the open questions, there are some problems with the whole low cost concept. Participants do not understand why prices are so cheap, or why people have to pay extra for "basic necessities". One question in the survey asked participants whether they believe the rise of low cost airlines improves the overall services and quality among all airlines, including full service airlines.

As can be seen in table 18, the majority of the participants stated that they do not see an improvement of services and quality now that more low cost airlines are opening their doors. This could mean that participants and passengers see the quality and service of full service airlines decreasing in standard or that full service airlines are remaining the same, but with "I do not see a difference" following closely, this assumption is difficult to make.

Do you think that with more and more low cost airlines, airlines in general are improving their services and quality?	Frequency	Percent
Yes	50	21.9
No	98	43.0
I do not see a difference	80	35.1
Total	228	100.0

Table 18. Influence of low cost airlines on service and quality of airlines in general.

Looking at age groups, we see that the youngest group and oldest group do not see a difference, whereas the largest group, the age group 25-34, and the two groups 35-44 and 45-54 years of age, state that airlines in general are not improving their service and quality which could mean that participants of these age groups are less satisfied with airlines. Results are shown in table 19.

Do you think that with more and more low cost airlines, airlines in general are improving their services and quality?		Frequency	Percent	Valid Percent
18-24 years old	Yes	22	36.7	36.7
	No	15	25.0	25.0
	I do not see a difference	23	38.3	38.3
	Total	60	100.0	100.0
25-34 years old	Yes	19	20.0	20.0
	No	50	52.6	52.6
	I do not see a difference	26	27.4	27.4
	Total	95	100.0	100.0
35-44 years old	Yes	3	18.8	18.8
	No	7	43.8	43.8
	I do not see a difference	6	37.5	37.5
	Total	16	100.0	100.0
45-54 years old	Yes	3	20.0	20.0
	No	10	66.7	66.7
	I do not see a difference	2	13.3	13.3
	Total	15	100.0	100.0
55+	Yes	3	7.1	7.1
	No	16	38.1	38.1
	I do not see a difference	23	54.8	54.8
	Total	42	100.0	100.0

Table 19. Influence of low cost airlines on service and quality of airlines in general categorized by age.

Another question asked, summarizing the question regarding satisfaction among variables with the previous flight survey, was whether participants agreed with the following state-

ments, regarding their previous flight; satisfaction with overall experience, using the same airline in the future again, recommending the airline to relatives and friends, and if a participant would spread positive word-of-mouth. Table 20 shows that participants are rather satisfied with the different statements (ranked from 1 to 5 with 5 being the highest). Looking at satisfaction overall, participants scored the previous flight with an average of 3.92. Since the statement has a lower standard deviation compared to the rest, a skewness more towards the higher scores, and a positive kurtosis, we see that participants are more or less scoring satisfaction around the higher grades. Whether participants would fly the same airline again scores the highest among the four statements with a 4.09 as mean. The higher skewness and kurtosis also shows that participants are mainly choosing positive numbers on this statement. The final two statements, recommending the airline to family and friends, and spreading positive word-of-mouth go hand in hand, showing similar means with 3.78 and 3.67 respectively. However, the kurtosis for both statements show that participants are more divided on these statements.

F7 - How much do you agree with the following statements regarding your previous flight:	N	Mean	Std. Deviation	Skewness	Kurtosis
I am very satisfied with the overall experience	228	3.92	.986	-.843	.353
I would definitely use this airline in the future again	228	4.09	1.054	-1.110	.641
I would recommend this service to my family/friends	228	3.78	1.171	-.762	-.172
I would spread positive word-of-mouth of this airline	228	3.67	1.236	-.657	-.491

Table 20. How participants agreement on four different overall statements.

The final question (ranked from 1 to 6 with 6 being the highest), a question which the author implemented to check whether creative and new airline ideas would be interesting to travelers, shows and verifies what has been discussed before in the analysis. One has to keep in mind that this question was optional to the participants, thus, instead of 228, 165 participants filled it in. Results can be found in table 21.

As the results show, participants were least satisfied and showed the biggest gaps when it comes to seat comfort and leg room. One of the suggestions by the author is the offering of more than average leg room and seat comfort. This was, as expected, not the number one suggestion, but a very close one with a mean of 5.28, standing out from the rest. The skewness and kurtosis; -1.803 and 3.404 respectively, indicate that participants were rather positive about this suggestion and that participants voted evenly distributed. The highest mean however is found with the automatic refund of costs when flights are delayed variable, which scores a mean of 5.29, a skewness of -1.671 (showing participants score rather high), and a

kurtosis of 3.594, showing that participants are evenly distributed. This could indicate why participants were not satisfied with the price and on-time performance and punctuality, compared to importance and attractiveness measured in sub-chapter 4.3.

Furthermore, offering passengers more standards included in the price seems to be rated high as well, with a mean of 5.01. As seen in sub chapter 4.3.8, participants like to see more included in the price, especially the selecting of seats which showed a gap between importance and attractiveness. It could also indicate a relation to the In-flight Services, which includes meals, beverages, and amenities. Participants would like to see these improve, and according to the open suggestions, included within the price of a ticket. The offering of one seat class, tickets for a standard price, and allocated seats for families also show higher than average means, ranging between 4.33 and 4.47. Standing places in the airplane and offering a dog hotel at the airport seem to be the least preferred suggestions, with means of 2.63 and 2.57 respectively.

N1 - For long haul flights (flights of 6 hours or more), how interested would you be in flying with an airline that...	N	Mean	Std. Deviation	Skewness	Kurtosis
... offers only one seat class (no more business and first, just one comfortable class)	165	4.33	1.664	-.749	-.653
... offers more than average leg room and seat comfort	165	5.28	1.057	-1.803	3.404
... offers tickets for one standard price (price between economy and business)	165	4.33	1.555	-.728	-.477
... offers every passenger the same services (min. 25kg luggage, free selection of seat)	165	5.01	1.321	-1.422	1.361
... offers upgrades at additional costs (extra kgs, priority boarding)	165	3.90	1.629	-.492	-.822
... offers as standard allergy free and vegan food options that everyone can enjoy	165	3.53	1.892	-0.099	-1.436
... offers allocated seats for families	165	4.47	1.666	-1.035	-.116
... offers standing areas in airplanes	165	2.63	1.894	0.670	-1.120
... offers automatic refunding when flights are delayed	165	5.29	0.969	-1.671	3.594
... offers a dog hotel at the airport for your friendly pet	165	2.57	1.888	.727	-1.034

Table 21. New innovative airline ideas rated by participants.

4.4 Synthesis

The outcome and analysis of this study is comparable to that of previous research, supporting previous statements and making way for future research. This sub-chapter goes into detail and looks at what similarities there are to previous research, and it investigates the conflicts this research has with previous outcomes.

Price, one of the main topics mentioned in many research papers (Toh & Hu, 1988; Alamdari, 1999; Chin, 2002; Ali, 2007; Pakdil & Aydin, 2007; Tsantoulis & Palmer, 2008; Dolnicar et al., 2009; Wong & Musa, 2011; Aydin & Yildirim, 2012; Curtis et al., 2012; Suhartanto &

Noor, 2012; Zhu, 2016; Hossain et al., 2017; Yimga, 2017; Barukh, 2018; Tsafarakis et al., 2018; Brochado et al., 2019), is one of the main gaps when it comes to expected and perceived experiences. Thus upholding previous outcomes. The mentioned researchers wrote that a good price quality ratio is important, which is also the outcome of some of the open questions.

Looking at Reliability, we see another confirming claim: safety and on-time performance/punctuality are most important when it comes to service quality and satisfaction. Researchers Toh & Hu, (1988); Glab, (1998); Alamdari, (1999); Chin, (2002); Gilbert & Wong, (2003); Atalik & Özel, (2007); Pakdil & Aydin, (2007); Tsantoulis & Palmer, (2008); Ringle et al., (2011); Aydin & Yildirim, (2012); Curtis et al., (2012); Basfirinci & Mitra, (2014); Hussain et al., (2014); Jeeradist et al., (2016); Zhu, (2016); Hossain et al., (2017); Shen, (2017); Wardhana et al., (2017); Barukh, (2018); Xu et al., (2018); Brochado et al., (2019) all wrote how safety, on-time performance and punctuality, security and past experience are the main influencers when it comes to satisfaction and decision making. The gap matrix shows that Reliability is something that passengers take into consideration when purchasing a ticket, and investing in these areas would also make an airline stand out from competition. Thus, both consumer behavior and service and quality management are enhanced by these variables.

When it comes to responsibility, we see a large gap in attractiveness, supporting research by Suzuki, (2000); Basfirinci & Mitra, (2014); Yimga, (2017); Brochado et al., (2019), however, this research shows that currently participants are more satisfied with the risk handling that is currently offered compared to what would influence decision making, but the gap is minor. Since risk handling does score one of the highest means on satisfaction, it supports claims by Ringle et al. (2011), who found that risk handling influences service and quality management.

Responsiveness; fast/priority boarding and fast disembarking, shows no gap in expected services and perceived services. Passengers are currently more satisfied with what is offered, contradicting Ringle et al. (2011), who stated that boarding significantly influences leisure traveler satisfaction. Fast/priority boarding and fast disembarking do, however, improve the attractiveness of airlines, supporting Xu et al. (2018), who found that priority boarding enhances consumer emotion towards airlines. The variable 'flight network' is incorporated in 'flight schedules and convenience' as the network serves convenience as well.

Looking at image and reputation, awareness, and credibility, we see that participants are more than satisfied with what is currently offered, compared to their decision making, and with the attractiveness of an airline. Similarities in this case are with Jeng (2015), who stated that credibility influences consumer shopping behavior. This research contradicts earlier findings by Wong & Musa (2011), who stated that passengers expect reputation to be higher than what is currently perceived. The analysis shows that passengers are more satisfied with image and reputation than is important to them. Also in agreement with Oke et al. (2015), is the finding that awareness influences how consumers decide which airline to choose. Awareness in this research is one of the top variables when it comes to creating attractive brands.

Communication, consisting of word-of-mouth, marketing, destination offers, personal offers, and national carrier variables, shows in this research that mainly destination offers influence consumer behavior (importance when choosing an airline), whereas this factor also makes an airline stand out from competition. This supports findings by Huang & Lu (2017). However, it does not so much support findings by Barukh (2018), who stated that consumer behavior is influenced by word of mouth by friends and relatives. This research shows that word-of-mouth (by relatives, friends), does not influence decision making a lot. This study also contradicts Ali (2007), who stated that national pride is an important aspect for infrequent travelers. This research shows that the most frequent flyers score highest on national airline.

Helpfulness (by crew) and friendliness (by crew) are two variables that score highly on importance for buying behavior and attractiveness, and also shows that it could make an airline stand out would it improve in these areas. This is in line with findings from Glab, (1998); Tsantoulis & Palmer, (2008); Ringle et al., (2011); Curtis et al., (2012); Suhartanto & Noor, (2012); Basfirinci & Mitra, (2014); Zhu, (2016); Wardhana et al., (2017); Brochado et al., (2019) who state that passengers expect a certain quality of service and that this can heavily influence attractiveness, satisfaction and decision making. However, participants are currently satisfied with what is offered compared to how important these variables are.

Comfort is perhaps the block that has the largest gaps, especially seat comfort and leg room, supporting findings by Toh & Hu, (1988); Glab, (1998); Alamdari, (1999); Chin, (2002); Tsantoulis & Palmer, (2008); Ringle et al., (2011); Curtis et al., (2012); Zhu, (2016); Hossain et al., (2017); Barukh, (2018); Xu et al., (2018); Brochado et al., (2019) who all stated that seat comfort and leg room are basic necessities and that they can improve attractiveness and satisfaction. It also supports the WTP findings by some of these authors as seat comfort and leg

room is the only variable that participants are willing to pay extra for. Furthermore, this research is also in line with Aydin & Yildirim (2012) and Yimga (2017), who stated that modern looking equipment and OTP is important to consumer behavior.

Technology, consisting of in-flight entertainment (screen, newspapers), frequent flyer program, and online check-in via app or website, shows a few gaps, especially with in-flight entertainment. The in-flight entertainment (screen, newspapers) variable is not as important to participants as the effect it has on attractiveness. Also, the frequent flyer program is not as important to participants, contradicting what Glab (1998) found.

Finally, looking at In-flight Services; meals, beverages and amenities, we see that the largest gaps are visible with meals and beverages. It would make an airline stand out from the competition, and currently participants are not as happy with what is currently offered compared to what is important for those participants. This is in line with findings from Tsantoulis & Palmer, (2008); Curtis et al., (2012); Zhu, (2016); Fensterstock, (2017); Barukh, (2018) and Xu et al., (2018), stating that meals and beverages are important when it comes to service quality and attractiveness of an airline. However, it contradicts Barukh's findings (2018) regarding WTP for better meal options. Participants in this study would like to see meal options included in the price. The outcome regarding amenities also contradicts what Tsantoulis & Palmer, (2008); Zhu, (2016) wrote. It does not drive consumer satisfaction as it is not important when selecting an airline, but it would make an airline more attractive.

5. CONCLUSION

5.1 Research Objectives: Summary of Findings and Conclusions

This master thesis demonstrated that there is a clear gap between expected services and experienced services. With Price, Reliability, Responsibility, Responsiveness, Assurance, Communication, Crew, Comfort, Technology, and In-flight Services being rated as most important to passengers, the literature review shows that currently airlines are lacking in these areas. Passengers are unsatisfied with what is offered and research clearly states what would improve satisfaction, attractiveness, consumer behavior and decision making, and the WTP of potential passengers. Various researchers stated that passengers want a good price and quality ratio, or that safety, security, and on-time performance/punctuality are incredibly important when it comes to choosing an airline and being satisfied with that airline. Research also shows how passengers want a certain standard service by the crew, and how comfort is a basic necessity for passengers. The variables found in the literature served as a basis for conducting this research and this has been visible throughout the process of this research.

This research paper demonstrated in an in-depth manner what the important factors are that influence passengers' purchase behavior. In particular, it stresses what airlines are currently not providing that passengers would like to see. The open questions show some interesting outcomes; passengers want more leg room, better and more comfortable chairs, passengers want food, beverages, and amenities all included in the price. Not only should there be a better price to quality ratio, but passengers want to see more service and extras catering to their needs. Concluding the open questions, there are several factors that always come back and are the most critical to passengers. These factors underline what the analysis shows and the gaps that became clear during the data analysis.

To conclude the data analysis, we see, as expected, gaps that were already visible in the literature review when it comes to expectations and experiences. Passengers are not satisfied with price, safety and security could be better, and on-time performance and punctuality is lacking. Perhaps one of the most interesting findings is that sustainability options would make an airline stand out from competition, but passengers would not be willing to pay extra for those nor would it influence passengers' behavior when selecting an airline. But there is room for improvement as with many variables in the list. However, are these gaps significant when it comes to the sweet spot of airline experience design and how can airlines successfully design the sweet spot that facilitates successful experiences and subsequently leads to loyal passen-

gers? For this we need to answer three of the four objectives formulated in the beginning of this research.

Looking at those three objectives that were set at the beginning of the research (the first of the four objectives is answered within the literature review);

1. To identify factors of airline experiences, and passengers' experiences and expectations
2. To assess the most important factors for overall airline experience
3. To explore what passengers are willing to pay extra for in order to experience their preferred airline experience
4. To formulate recommendations on airline experience designs, the so called 'sweet-spot'

5.1.1 Research Objective 2: Most Important Airline Experience Factors

We see that the second objective can be answered by saying that safety and security, credibility (trust), price, on-time performance and punctuality, destination offers, and risk handling are by far some of the most important factors when it comes to airline experience design. These are the factors scoring above 5 on average when it comes to importance of selecting an airline. Other variables such as friendliness (by crew), flight schedules and convenience, seat comfort and leg room, helpfulness (by crew), modern equipment (new airplanes, new technology), online check-in via app or website, select seating, image and reputation, awareness (well-known airline), beverages, in-flight entertainment (screen, newspapers), word-of-mouth (by relatives, friends), and meals follow when it comes to importance. These variables all score above average on importance. Looking at what makes an airline more attractive, we see that passengers put emphasis on safety and security, price, on-time performance and punctuality, seat comfort and leg room, friendliness (by crew), credibility (trust), flight schedules and convenience, select seating, risk handling, modern equipment (new airplanes, new technology), helpfulness (by crew), and destination offers. These variables all score above 5 on average. Other variables scoring above average within the list are beverages, meals, in-flight entertainment (screen, newspapers), image and reputation, online check-in via app or website, and sustainability (extra options to reduce CO2 footprint).

But there are also factors that are incredibly unimportant to passengers at this stage. Looking at the matrices, we see that items such as the FFP, amenities, priority luggage return,

personal offers (special offers for you), and book a car or hotel when booking tickets are unimportant and unattractive. These are some variables that have existed for longer already. This could mean that airlines are not innovative enough in these fields, or that passengers do not see the value of having it at all. None of these variables are something that passengers would be willing to pay extra for.

More interestingly, the extra added variables such as service robots, check-in via biometrics (facial recognition, fingerprints), and receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp) currently score incredibly low on attractiveness and importance. These are changes that are bound to happen in the near future as some airlines have already started implementing such services or other technological advancements. Conducting the exact same survey 10 or 20 years from now could show completely different results when it comes to future innovative technology.

Looking at the unimportant and unattractive variables, it could mean that airlines should shift their focus away from the standard loyalty program and additional services (priority luggage return, personal offers, car or hotel booking) to slowly introducing additional innovative technological advancements such as a completely new loyalty program, robots, AI chatbots, and biometrics check-in. With this, airlines would not only prepare for the future, but would introduce innovation slowly to passengers making it a smooth transition from traditional ways to innovative ways.

5.1.2 Research Objective 3: WTP

Looking at the third objective, there are not many variables which passengers like to pay extra for, there is actually only one option that passengers see the value of, namely seat comfort and leg room. This variable scores one of the largest gaps when it comes to importance and attractiveness versus satisfaction and clearly shows that airlines could improve this. But there are a few other variables that passengers believe should be included in the price, namely; safety and security, on-time performance and punctuality, friendliness (by crew), credibility (trust), flight schedules and convenience, risk handling, helpfulness (by crew), and online check-in via app or website. These are the variables that already score well on attractiveness and satisfaction, but airlines could become so much better would they offer select seating, modern equipment (new airplanes, new technology), and especially beverages, meals, in-flight entertainment (screen, newspapers), and sustainability (extra options to reduce CO2 footprint).

As stated before, the WTP variables are mainly within the red and green part of the matrix in figure 6. But since wants and needs change, future results could be completely different, especially with the Travel Innovation variables such as service robots, check-in via biometrics (facial recognition, fingerprints), and receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp). Also here, creating a need for such services could help passengers become more familiar with such innovation and ultimately have passengers pay extra for these variables.

5.1.3 Research Objective 4: Sweet Spot of Airline Experience Design

In order to really find this sweet spot of airline experience design, we need to look further. The gap matrix combining attractiveness and WTP with satisfaction, figure 6, shows us that seat comfort and leg room, modern equipment (new airplanes, new technology), select seating, beverages, in-flight entertainment (screen, newspapers), meals, and sustainability (extra options to reduce CO2 footprint) are important factors that would influence passengers' consumer behavior, satisfaction, loyalty, and perception of service and quality management. Furthermore, the open questions answered by participants also clearly state that airlines could improve their airline experience design, supporting the fourth objective. If airlines improve seat comfort and leg room, price quality ratio, in-flight services such as meals and beverages (and also include these in the price), safety and security, have a more efficient network and reduce time spent at the airport and in the airplanes, passengers would show higher satisfaction.

Thus, concluding on the fourth objective and recommending how to formulate this sweet spot of airline design, one can look at the three matrices provided. Passengers want more seat comfort and leg room, whereas sustainability would not be an unwise decision for airlines to start integrating as well. Of course, the aforementioned variables such as safety and security, price, credibility (trust), on-time performance and punctuality, destination offers, risk handling, friendliness (by crew), helpfulness (by crew), and image and reputation should not be forgotten, as these are incredibly important and attractive to passengers as well. But currently, passengers are almost always satisfied with what is offered. And if these variables show a gap between importance and satisfaction or attractiveness and satisfaction, the variables in the green areas are still above average. Worsening these services would lead the variables to shift towards the red corner of the matrix, showing that the red area is the critical danger zone for airlines when it comes to airline experience design. This goes for both matrices; figures 4 and 5.

Thus, to answer the question of how airlines can successfully design the sweet spot that facilitates successful experiences and subsequently leads to loyal passengers, we have to look at the visualization of the sweet spot of airline experience design, which is found in the matrices, figures 4, 5 and 6. We need to look at what would happen if the variables improved in importance, attractiveness, and satisfaction, but also what would happen if the variables in the red and green corners worsened. Looking at the three matrices one can conclude that the blue part is the area where factors are unimportant and unattractive to passengers for flying an airline. The yellow part includes variables that are unnecessary, but currently satisfying. The red part is where it becomes interesting. This is the part with which airlines can start to stand out but also critically endanger their own services. Improving seat comfort and leg room, meals and beverages as standard service, and sustainability options would already help an airline become more attractive. Those variables visible in the red areas could impact satisfaction, loyalty, and perception of service and quality management the most, because if airlines start to neglect the services in the green corner, resulting in lower satisfaction, airlines could lose that competitive advantage, and more importantly; lose satisfied and loyal customers. It is therefore a best practice for airlines to keep the variables in the green as this is the area that leads to the most satisfied and consequently loyal passengers. And improving the variables in the red area would mean these services would go towards and into the green area. Thus, concluding, the green area is the so-called *sweet spot of airline experience design*.

5.1.4 Conclusion: Matrices

As described previously, the green area is the so called 'Sweet Spot of Airline Experience Design'. But the other three areas can also be named differently and explained in more detail. The red part could be named the 'Danger Zone', with variables scoring below average satisfaction but above average importance and attractiveness. The 'Danger Zone' is what airlines should focus on to stand out from the competition. These are also the only variables that airlines could improve which influence satisfaction and loyalty because these are the variables already important to passengers, compared to the blue and yellow corner.

The yellow and blue corner could be named the 'Future Ready Zone' and 'Doomsday Prep Zone' respectively. Variables in these two corners score below average on importance and attractiveness, but either score below average satisfaction or above average satisfaction. These are the variables that do not influence consumer behavior as much as the other variables, but could have future impacts on consumer behavior and airline attractiveness. In case passengers'

wants and needs change, the 'Future Ready Zone' includes those variables that would not cause problems to an airline as passengers are already satisfied with the variables. The 'Doomsday Prep Zone' on other hand is named that way because in here, we find the variables that are not important or attractive, but also score below average on satisfaction. In case trends shift (higher need for service robots, sustainability, amenities, priority luggage return, check-in via biometrics, the frequent flyer program, or others), airlines are not ready as passengers are currently not satisfied with these variables. Therefore, the variables in this corner could mean doomsday for which airlines have to prepare. But the question remains whether this would ever happen. Just as with the real doomsday.

5.2 Contribution to Knowledge

This thesis supports current research papers by stating again that many variables are indeed important to passengers and that airlines lack in certain areas, especially areas such as seat comfort and leg room, meals and beverages, and other in-flight services. This thesis also gives airlines an idea about what passengers are currently satisfied with, namely safety and security, credibility (trust), and helpfulness and friendliness of members of the crew. It also shows that frequent flyer programs are indeed not as important and attractive to passengers as many airlines perhaps think.

But what is perhaps one of the main new findings in the field of airline experience design, service and quality management, and consumer behavior, is that this research points out that sustainability has become one important aspect in the lives of passengers and especially with airlines. The gap matrix shows how sustainability has become an attractive factor, but currently scores lowest on satisfaction.

This research, as stated before, supports current research on airline experience design themes, but it stands out as it combines many different aspects into one research paper. Instead of going through many different research papers, trying to find out what is important for the airline experience design and what not, this research combines all in one, providing an easy overview for future researchers, students, and of course airline CEOs and service providers to find out what to work on.

5.3 Managerial Recommendations

Thus the sweet spot of airline experience design is clear; if airlines can manage to keep variables in the green area, and improve those of the red area, as visible in figures 4 through 6, air-

lines can boost their experience design and satisfy passengers in a much better way. This thesis recommends airlines to look at their current airline experience design, and check whether there are any pain points in their current service. There is much to gain for airlines and perhaps much to change if airlines want to stand out from the competition.

Luckily it is not all bad news for airlines. *Currently, passengers are already satisfied with many important and attractive factors*, showing that airlines are doing a good job. But that does not mean there is no room for improvement or that airlines can slack off when it comes to offering services and extras. *Price and safety and security for example, two of the most important aspects for passengers, already score highly on satisfaction.* Worsening these factors would mean airlines damage their own attractiveness, losing loyal customers and leading passengers to choose other airlines. In the matrices, figures 4, 5 and 6, this would show a shift from variables going from the green areas to the red critical areas.

Airlines can use the outcome of this thesis by looking at what is currently missing in their own airline experience design, and perhaps add or change current services. One incredibly important aspect that this thesis recommends airlines to focus on, is *improving seat comfort and leg room, and providing meals, beverages, and better in-flight entertainment to passengers*. These are some of the most important aspects to passengers and the research clearly shows that airlines lack in offering these services.

But airlines should not only focus on what is important and attractive, *they should keep a close eye on trends and changes in behavior*. There are some unexpected outcomes in this survey, with *sustainability as one of the surprising outcomes*, and an important one nonetheless. It could serve as one of the main factors for future airline experience design as currently passengers are incredibly unsatisfied with the sustainability offers of airlines. However, it is not one of the most important aspects for passengers when choosing an airline as the variable scores below average, but it is an attractive aspect, showing *airlines could stand out from competition by investing in sustainability*.

Sustainability, among factors such as service robots, check-in via biometrics (facial recognition, fingerprints), personal offers, and receiving flight info and ticket via chatbots (Facebook Messenger, WhatsApp), should be monitored in the future as these could be trends that develop and become more attractive to passengers. Of course, factors such as *safety and security, friendliness (by crew) or helpfulness (by crew), risk handling, and image and reputation*

should not be neglected as there is always the possibility that passengers lose interest in certain factors, although chances are unlikely considering these are some of the most important and attractive aspects of an airline. But that would not change the fact that all variables in this research can shift. Perhaps in 20 years from now, passenger wishes are different and what airlines do well now, could become outdated.

To make it a smooth transition from traditional ways to innovative ways, airlines should slowly introduce such services to passengers. With small tests for biometric check-in or automatically sending flight information to linked WhatsApp or Facebook Messenger accounts, airlines can show it can be done in an easier manner and create a need for such services. Airlines could improve overall satisfaction by slowly implementing innovative services if passengers start seeing the value of using these services.

Furthermore, the author advises airlines to *keep track of passenger satisfaction and to improve the areas in which airlines still lack according to the sweet spot*. This thesis sets a course for future research as the questionnaire and templates can be used to analyze specific airlines and their passenger base, but it can also be applied to research based on business and first class travelers. And as this study is mainly focusing on European travelers, the research could be conducted among people from all over the world, investigating how Americans think, or people from Asia or Africa. Perhaps there are unknown differences here, waiting to be discovered.

5.4 Self Reflection and Future Research

It was not as easy as thought at first; starting and completing a research paper on something without prior knowledge on how to write a research paper, where to look for information, and how to set up a research survey that exactly measures what the thesis is supposed to measure. Fortunately, throughout the year it became more apparent that many different researchers and research papers set the foundation for what became an interesting research. Also helpful was the fact that most research papers do state similar trends and outcomes, showing that airline passengers think and act alike.

There are a few limitations to this thesis. With the additional newly added variables, there is a low number of participants compared to the total number of variables investigated. And as participants sometimes could not rank their satisfaction on variables, because it was not available on their previous flight, the total number of participants might be low. Additionally, as

the research is mainly focused on Europe, other parts of the world are ignored in this thesis. There is also the limitation of having a defined set of variables based on the literature review. There has been no qualitative research in this study to research if there are any hidden needs among passengers. It is recommended for future research to focus on specific parts of the world and see whether different ethnic groups score differently on the variable blocks, and the author recommends basing this research on specific airlines and with a larger customer base. This way, airlines can see how their sweet spot for airline experience design scores and check whether their airline experience design differs from a general perspective given in this thesis.

This research paper has helped the author get a clear idea of what could improve and what would attract passengers to the perfect airline experience design. The thesis should also support future students who decide to investigate areas of airline experience design or trends in the tourism industry. In case students do decide to investigate these areas, the author recommends to reflect back on one's own needs and wishes, and see if everything is fulfilled or not. This should give a clear idea of what could be improved and should be the start of a great research paper that truly reflects back on what the student wants.

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APPENDICES

Appendix A

Intro

Thank you very much for your participation!

This study focuses on the **expectations and experiences** of **leisure travelers** in the airline industry. The study will take approximately 12 minutes and there is a chance for you to win **one of three €/$/£ 50,- Amazon vouchers**.

This study is in no way affiliated with Amazon, Sawtooth Software, or a research institute. This research is done by Mr. Boender, Master student at MODUL University Vienna. All information will be treated confidentially and will only be used for statistical purposes.

Select Language

For an English questionnaire, select English.

Für einen deutschen Fragebogen, wählen Sie Deutsch.

1. English
2. Deutsch

D1

How many flights have you taken **in total** in the last 24 months?

Please see round trips as one flight.

1. 1 time
2. 2-5 times
3. 6-10 times
4. 11 times or more
5. No flights

D2

Do you (usually) travel for **leisure** or **business** purposes?

1. Leisure
2. Business

D3

Are you currently working for an airline?

1. Yes
2. No

D4

Are you...

1. Female
2. Male
3. Other

D5 What is your age?

Open answer Years

2. No answer

D6 Could you categorize your age?

1. Under 18
2. 18-24 years old
3. 25-34 years old
4. 35-44 years old
5. 45-54 years old
6. 55+

D7 What is the highest level of education you have completed?

1. Still in education
2. Less than high school
3. High school diploma or equivalent
4. Bachelor's/master's/doctorate degree or equivalent

D8 Where are you from?

1. Africa
2. Europe
3. Asia
4. North America
5. South America
6. Oceania
7. Other

S1 How do you feel about the following items?

1. I am eager to try new products on the market.
2. I am curious about trying products that I have never used.
3. I enjoy trying unusual products.
4. I do extensive research before acquiring new products.
5. I make careful decisions about what I want to buy.
6. Acquiring new products makes me happier.
7. Using new products gives me a sense of personal enjoyment.
8. I enjoy using new products that make me a visionary leader.
9. I prefer to try new products with which I can stand out among my friends.
10. I like to own a new product that distinguishes me from others.

Scale: 1 = Completely disagree – 5 = Completely agree

preF1 The next few questions will be about your **ideal flight experience**.

The lists you will see contain up to 37 items. I know this is a lot, but you will only see this list 4 times.

F1 On a scale from 1 = "not at all important" to 6 = very important", how **important** are the following items for you when it comes to choosing an airline?

1. Price
2. Safety & Security
3. On-time performance & punctuality
4. Past experience
5. Risk handling
6. Fast/priority boarding
7. Fast disembarking
8. Image & Reputation
9. Awareness (well-known airline)
10. Credibility (trust)
11. Word-of-mouth (by relatives, friends)
12. Marketing
13. Destination offers
14. Personal offers (special offers for you)
15. National airline
16. Helpfulness (by crew)
17. Friendliness (by crew)
18. Cultural etiquettes (by crew)
19. Languages (spoken by crew)
20. Flight schedules & convenience
21. Seat comfort & leg room
22. Modern equipment (new airplanes, new technology)
23. In-flight entertainment (screen, newspapers)
24. Frequent flyer program
25. Online check-in via app or website
26. Meals
27. Beverages
28. Amenities (headset, sleeping mask)
29. Sustainability (extra options to reduce CO2 footprint)
30. Service for disabilities (wheelchair, service dogs)
31. Service for minors (guided boarding & disembarking)
32. Select seating
33. Priority luggage return
34. Book a car or hotel when booking tickets
35. Service robots
36. Receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp)
37. Check-in via biometrics (facial recognition, fingerprints)

Scale: 1 = Not at all important – 6 = Very important

F2 Would you be **willing to pay extra** for:

1. Price
2. Safety & Security
3. On-time performance & punctuality
4. Past experience
5. Risk handling
6. Fast/priority boarding
7. Fast disembarking
8. Image & Reputation
9. Awareness (well-known airline)
10. Credibility (trust)
11. Word-of-mouth (by relatives, friends)
12. Marketing
13. Destination offers
14. Personal offers (special offers for you)
15. National airline
16. Helpfulness (by crew)
17. Friendliness (by crew)
18. Cultural etiquettes (by crew)
19. Languages (spoken by crew)
20. Flight schedules & convenience
21. Seat comfort & leg room
22. Modern equipment (new airplanes, new technology)
23. In-flight entertainment (screen, newspapers)
24. Frequent flyer program
25. Online check-in via app or website
26. Meals
27. Beverages
28. Amenities (headset, sleeping mask)
29. Sustainability (extra options to reduce CO2 footprint)
30. Service for disabilities (wheelchair, service dogs)
31. Service for minors (guided boarding & disembarking)
32. Select seating
33. Priority luggage return
34. Book a car or hotel when booking tickets
35. Service robots
36. Receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp)
37. Check-in via biometrics (facial recognition, fingerprints)

Scale: 1 = Yes – 2 = No – 3 = Should be included in the price

F3 On a scale from 1 = "less attractive" to 6 = "more attractive", which services and qualities do you think make an airline **more attractive over other airlines**, if it would **improve/invest** in those areas?

1. Price
2. Safety & Security
3. On-time performance & punctuality
4. Past experience
5. Risk handling
6. Fast/priority boarding
7. Fast disembarking
8. Image & Reputation
9. Awareness (well-known airline)
10. Credibility (trust)
11. Word-of-mouth (by relatives, friends)
12. Marketing
13. Destination offers
14. Personal offers (special offers for you)
15. National airline
16. Helpfulness (by crew)
17. Friendliness (by crew)
18. Cultural etiquettes (by crew)
19. Languages (spoken by crew)
20. Flight schedules & convenience
21. Seat comfort & leg room
22. Modern equipment (new airplanes, new technology)
23. In-flight entertainment (screen, newspapers)
24. Frequent flyer program
25. Online check-in via app or website
26. Meals
27. Beverages
28. Amenities (headset, sleeping mask)
29. Sustainability (extra options to reduce CO2 footprint)
30. Service for disabilities (wheelchair, service dogs)
31. Service for minors (guided boarding & disembarking)
32. Select seating
33. Priority luggage return
34. Book a car or hotel when booking tickets
35. Service robots
36. Receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp)
37. Check-in via biometrics (facial recognition, fingerprints)

Scale: 1 = Less attractive – 6 = More attractive

F4 If you could add anything to your **ideal airline experience**, what would it be?

Could be something from the previous list, or something completely new. There are no wrong answers, everything is appreciated.

Textbox

preF5 The next few questions will be about your **past** flight experience.

F5 Was your previous flight a **long haul flight** (more than 6 hours) or a **short haul flight** (less than 6 hours)?

1. Long haul flight
2. Short haul flight

F6 This is the final question with the following list. We're almost there.

On your previous trip, how **satisfied** were you with the following items, on a scale from 1 = "very dissatisfied" to 6 = "very satisfied"?

1. Price
2. Safety & Security
3. On-time performance & punctuality
4. Past experience
5. Risk handling
6. Fast/priority boarding
7. Fast disembarking
8. Image & Reputation
9. Awareness (well-known airline)
10. Credibility (trust)
11. Word-of-mouth (by relatives, friends)
12. Marketing
13. Destination offers
14. Personal offers (special offers for you)
15. National airline
16. Helpfulness (by crew)
17. Friendliness (by crew)
18. Cultural etiquettes (by crew)
19. Languages (spoken by crew)
20. Flight schedules & convenience
21. Seat comfort & leg room
22. Modern equipment (new airplanes, new technology)
23. In-flight entertainment (screen, newspapers)
24. Frequent flyer program
25. Online check-in via app or website
26. Meals
27. Beverages

28. Amenities (headset, sleeping mask)
29. Sustainability (extra options to reduce CO2 footprint)
30. Service for disabilities (wheelchair, service dogs)
31. Service for minors (guided boarding & disembarking)
32. Select seating
33. Priority luggage return
34. Book a car or hotel when booking tickets
35. Service robots
36. Receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp)
37. Check-in via biometrics (facial recognition, fingerprints)
Scale: 1 = Very dissatisfied – 6 = Very satisfied – 7 = Not applicable

F7 How much do you **agree** with the following statements regarding your previous flight:
1. I am very satisfied with the overall experience
2. I would definitely use this airline in the future again
3. I would recommend this service to my family/friends
4. I would spread positive word-of-mouth of this airline
Scale: 1 = Completely disagree – 5 = Completely agree

F8 Do you think that with more and more low cost airlines, airlines in general are improving their services and quality?
1. Yes
2. No
3. I do not see a difference

F9 Do you have any other comments for airlines?
Textbox
2. No answer

preN The following questions are about **new airline ideas** and will take little of your time. These questions are however **not required** for you to answer for this research.

Would you like to answer these additional questions?
1. Yes
2. No

N1 For long haul flights (flights of 6 hours or more), how **interested** would you be in flying with an airline that...
1. ... offers only **one seat class** (no more business and first, just one comfortable class)
2. ... offers **more than average** leg room and seat comfort
3. ... offers tickets for **one standard price** (price between economy and business)
4. ... offers every passenger the **same services** (min. 25kg luggage, free selec-

5. tion of seat)
6. ... offers **upgrades at additional costs** (extra kgs, priority boarding)
7. ... offers as standard **allergy free and vegan food options** that everyone can
8. enjoy
9. ... offers **allocated seats for families**
10. ... offers **standing areas** in airplanes
... offers **automatic refunding** when flights are delayed
... offers a **dog hotel** at the airport for your friendly pet

Scale: 1 = Not interested at all – 6 = Very interested

preAV

We are now at the end of the questionnaire. As described at the beginning, you have the chance to win **one of three €/$/£ 50,- Amazon vouchers**. For this I would require your email address.

Your email address will be stored securely and only used in case you are one of the lucky winners. Afterwards, all email addresses will be deleted.

Would you like to participate in the raffle and do I have your permission to contact you via email if you are one of the three winners?

1. Yes
2. No

AV

Please enter your email address.

Textbox

End

That's it! Thank you very much for your participation and your answers.

In case you are one of the lucky winners, I will contact you by the **end of May, 2019**.

Appendix B

		Important for ideal flight / Satisfied with previous flight (N)	Importance Mean	Satisfaction Mean	Gap
Price	Price	228 / 218	5.19	4.89	0.30
Reliability	Safety & Security	228 / 226	5.52	5.38	0.14
	On-time performance & punctuality	228 / 227	5.06	4.82	0.24
Responsibility	Risk handling	228 / 187	5.01	5.06	-0.05
	Fast/priority boarding	228 / 203	3.97	4.54	-0.56
	Fast disembarking	228 / 215	3.96	4.49	-0.53
Assurance	Image & Reputation	228 / 222	4.50	4.78	-0.28
	Awareness (well-known airline)	228 / 218	4.46	4.95	-0.49
	Credibility (trust)	228 / 218	5.24	4.94	0.31
Communication	Word-of-mouth (by relatives, friends)	228 / 171	4.21	4.67	-0.45
	Marketing	228 / 182	3.29	4.23	-0.94
	Destination offers	228 / 206	5.06	4.99	0.07
	Personal offers (special offers for you)	228 / 150	3.99	3.81	0.18
	National airline	228 / 159	3.51	4.53	-1.03
Crew	Helpfulness (by crew)	228 / 224	4.81	4.94	-0.13
	Friendliness (by crew)	228 / 228	4.99	5.05	-0.06
	Cultural etiquettes (by crew)	228 / 200	3.90	4.78	-0.87
	Languages (spoken by crew)	228 / 213	3.89	4.96	-1.08
Comfort	Flight schedules & convenience	228 / 221	4.96	4.72	0.24
	Seat comfort & leg room	228 / 226	4.88	4.23	0.66
	Modern equipment (new airplanes, new technology)	228 / 218	4.55	4.13	0.42
Technology	In-flight entertainment (screen, newspapers)	228 / 201	4.26	3.78	0.49
	Frequent flyer program	228 / 130	3.23	3.91	-0.68
	Online check-in via app or website	228 / 195	4.54	4.96	-0.42
In-flight Services	Meals	228 / 186	4.15	3.87	0.29
	Beverages	228 / 212	4.43	4.36	0.07
	Amenities (headset, sleeping mask)	228 / 140	3.64	3.75	-0.11
Additional Services	Sustainability (extra options to reduce CO2 footprint)	228 / 136	4.06	3.54	0.52
	Service for disabilities (wheelchair, service dogs)	228 / 82	3.57	4.37	-0.79
	Service for minors (guided boarding & disembarking)	228 / 82	3.33	4.16	-0.83
	Select seating	228 / 203	4.50	4.41	0.10
	Priority luggage return	228 / 110	3.57	3.80	-0.23
	Book a car or hotel when booking tickets	228 / 74	2.54	3.97	-1.44
Travel Innovation	Service robots	228 / 62	2.36	3.68	-1.32
	Receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp)	228 / 93	2.93	4.19	-1.27
	Check-in via biometrics (facial recognition, fingerprints)	228 / 69	2.84	4.03	-1.19

Appendix C

		Airline attractiveness	Satisfied with previous flight	Attractiveness Mean	Satisfaction Mean	Gap
		N				
Price	Price	228	218	5.40	4.89	0.51
Reliability	Safety & Security	228	226	5.43	5.38	0.05
	On-time performance & punctuality	228	227	5.37	4.82	0.55
Responsibility	Risk handling	228	187	5.09	5.06	0.03
	Fast/priority boarding	228	203	4.61	4.54	0.08
	Fast disembarking	228	215	4.49	4.49	-0.01
Assurance	Image & Reputation	228	222	4.83	4.78	0.05
	Awareness (well-known airline)	228	218	4.58	4.95	-0.37
	Credibility (trust)	228	218	5.17	4.94	0.23
Communication	Marketing	228	182	3.89	4.23	-0.34
	Destination offers	228	206	5.01	4.99	0.02
	Personal offers (special offers for you)	228	150	4.26	3.81	0.45
Crew	Helpfulness (by crew)	228	224	5.06	4.94	0.12
	Friendliness (by crew)	228	228	5.20	5.05	0.15
	Cultural etiquettes (by crew)	228	200	4.31	4.78	-0.47
	Languages (spoken by crew)	228	213	4.54	4.96	-0.42
Comfort	Flight schedules & convenience	228	221	5.16	4.72	0.44
	Seat comfort & leg room	228	226	5.27	4.23	1.05
	Modern equipment (new airplanes, new technology)	228	218	5.07	4.13	0.93
Technology	In-flight entertainment (screen, newspapers)	228	201	4.86	3.78	1.08
	Frequent flyer program	228	130	4.00	3.91	0.10
	Online check-in via app or website	228	195	4.77	4.96	-0.19
In-flight Services	Meals	228	186	4.88	3.87	1.02
	Beverages	228	212	4.96	4.36	0.59
	Amenities (headset, sleeping mask)	228	140	4.43	3.75	0.68
Additional Services	Sustainability (extra options to reduce CO2 footprint)	228	136	4.76	3.54	1.22
	Service for disabilities (wheelchair, service dogs)	228	82	4.51	4.37	0.14
	Service for minors (guided boarding & disembarking)	228	82	4.29	4.16	0.13
	Select seating	228	203	5.11	4.41	0.70
	Priority luggage return	228	110	4.34	3.80	0.54
	Book a car or hotel when booking tickets	228	74	3.51	3.97	-0.46
Travel Innovation	Service robots	228	62	3.28	3.68	-0.40
	Receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp)	228	93	3.78	4.19	-0.41
	Check-in via biometrics (facial recognition, fingerprints)	228	69	3.70	4.03	-0.33

Appendix D

Correlations

F7 - How much do you agree with the following statements regarding your previous flight: I am very satisfied with the overall experience		Overall satisfaction	Price	Reliability	Responsibility	Assurance	Communication	Crew	Comfort	Technology	In-flight Services	Additional Services	Travel Innovation
Pearson Correlation	Overall satisfaction	1.000	.399	.477	.490	.487	.366	.539	.484	.343	.323	.271	.525
	Price	.399	1.000	.497	.549	.382	.333	.402	.402	.208	.264	.264	.283
	Reliability	.477	.497	1.000	.698	.550	.508	.590	.497	.231	.169	.259	.186
	Responsibility	.490	.549	.698	1.000	.629	.658	.582	.542	.330	.295	.379	.456
	Assurance	.487	.382	.550	.629	1.000	.705	.521	.592	.342	.332	.301	.338
	Communication	.366	.333	.508	.658	.705	1.000	.462	.659	.475	.457	.481	.413
	Crew	.539	.402	.590	.582	.521	.462	1.000	.584	.411	.304	.324	.369
	Comfort	.484	.402	.497	.542	.592	.659	.584	1.000	.580	.521	.553	.454
	Technology	.343	.208	.231	.330	.342	.475	.411	.580	1.000	.804	.601	.625
	In-flight Services	.323	.264	.169	.295	.332	.457	.304	.521	.804	1.000	.523	.502
	Additional Services	.271	.264	.259	.379	.301	.481	.324	.553	.601	.523	1.000	.529
	Travel Innovation	.525	.283	.186	.456	.338	.413	.369	.454	.625	.502	.529	1.000
Sig. (1-tailed)	Overall satisfaction		.000	.000	.000	.000	.000	.000	.000	.000	.001	.004	.000
	Price	.000		.000	.000	.000	.000	.000	.000	.021	.005	.005	.003
	Reliability	.000	.000		.000	.000	.000	.000	.000	.012	.049	.005	.035
	Responsibility	.000	.000	.000		.000	.000	.000	.000	.001	.002	.000	.000
	Assurance	.000	.000	.000	.000		.000	.000	.000	.000	.000	.001	.000
	Communication	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000
	Crew	.000	.000	.000	.000	.000	.000		.000	.000	.001	.001	.000
	Comfort	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000
	Technology	.000	.021	.012	.001	.000	.000	.000	.000		.000	.000	.000
	In-flight Services	.001	.005	.049	.002	.000	.000	.001	.000	.000		.000	.000
	Additional Services	.004	.005	.005	.000	.001	.000	.001	.000	.000	.000		.000
	Travel Innovation	.000	.003	.035	.000	.000	.000	.000	.000	.000	.000	.000	

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	.449	.474		.946	.347	-.494	1.392					
	Price	.046	.080	.056	.579	.564	-.112	.205	.399	.063	.044	.623	1.605
	Reliability	.233	.114	.249	2.054	.043	.007	.460	.477	.219	.156	.395	2.532
	Responsibility	-.063	.123	-.071	-.510	.612	-.307	.182	.490	-.056	-.039	.297	3.369
	Assurance	.182	.107	.202	1.696	.094	-.031	.395	.487	.182	.129	.409	2.445
	Communication	-.152	.115	-.174	-1.326	.188	-.380	.076	.366	-.143	-.101	.335	2.986
	Crew	.216	.115	.205	1.884	.063	-.012	.444	.539	.201	.143	.488	2.051
	Comfort	.126	.116	.136	1.086	.280	-.104	.356	.484	.118	.083	.369	2.707
	Technology	-.174	.133	-.203	-1.312	.193	-.438	.090	.343	-.142	-.100	.243	4.112
	In-flight Services	.099	.089	.148	1.110	.270	-.078	.276	.323	.120	.084	.324	3.087
	Additional Services	-.079	.081	-.103	-.981	.329	-.240	.081	.271	-.106	-.075	.525	1.906
	Travel Innovation	.295	.069	.469	4.265	.000	.157	.433	.525	.422	.325	.480	2.084

a. Dependent Variable: F7 - How much do you agree with the following statements regarding your previous flight: I am very satisfied with the overall experience

Appendix E

Correlations

F7 - How much do you agree with the following statements regarding your previous flight: Loyalty Sum Mean		Loyalty Sum Mean	Price	Reliability	Responsibility	Assurance	Communication	Crew	Comfort	Technology	In-flight Services	Additional Services	Travel Innovation
Pearson Correlation	Loyalty Sum Mean	1.000	.414	.447	.523	.521	.448	.571	.521	.393	.421	.360	.472
	Price	.414	1.000	.497	.549	.382	.333	.402	.402	.208	.264	.264	.283
	Reliability	.447	.497	1.000	.698	.550	.508	.590	.497	.231	.169	.259	.186
	Responsibility	.523	.549	.698	1.000	.629	.658	.582	.542	.330	.295	.379	.456
	Assurance	.521	.382	.550	.629	1.000	.705	.521	.592	.342	.332	.301	.338
	Communication	.448	.333	.508	.658	.705	1.000	.462	.659	.475	.457	.481	.413
	Crew	.571	.402	.590	.582	.521	.462	1.000	.584	.411	.304	.324	.369
	Comfort	.521	.402	.497	.542	.592	.659	.584	1.000	.580	.521	.553	.454
	Technology	.393	.208	.231	.330	.342	.475	.411	.580	1.000	.804	.601	.625
	In-flight Services	.421	.264	.169	.295	.332	.457	.304	.521	.804	1.000	.523	.502
	Additional Services	.360	.264	.259	.379	.301	.481	.324	.553	.601	.523	1.000	.529
	Travel Innovation	.472	.283	.186	.456	.338	.413	.369	.454	.625	.502	.529	1.000
Sig. (1-tailed)	Overall satisfaction		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	Price	.000		.000	.000	.000	.000	.000	.000	.021	.005	.005	.003
	Reliability	.000	.000		.000	.000	.000	.000	.000	.012	.049	.005	.035
	Responsibility	.000	.000	.000		.000	.000	.000	.000	.001	.002	.000	.000
	Assurance	.000	.000	.000	.000		.000	.000	.000	.000	.000	.001	.000
	Communication	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000
	Crew	.000	.000	.000	.000	.000	.000		.000	.000	.001	.001	.000
	Comfort	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000
	Technology	.000	.021	.012	.001	.000	.000	.000	.000		.000	.000	.000
	In-flight Services	.000	.005	.049	.002	.000	.000	.001	.000	.000		.000	.000
	Additional Services	.000	.005	.005	.000	.001	.000	.001	.000	.000	.000		.000
	Travel Innovation	.000	.003	.035	.000	.000	.000	.000	.000	.000	.000	.000	

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	-.187	.536		-.349	.728	####	.879					
	Price	.061	.090	.066	.675	.501	-.118	.240	.414	.073	.052	.623	1.605
	Reliability	.077	.128	.074	.600	.550	-.178	.332	.447	.065	.046	.395	2.532
	Responsibility	.033	.139	.034	.237	.813	-.243	.309	.523	.026	.018	.297	3.369
	Assurance	.196	.121	.196	1.617	.110	-.045	.437	.521	.174	.125	.409	2.445
	Communication	-.082	.130	-.085	-.631	.530	-.340	.176	.448	-.069	-.049	.335	2.986
	Crew	.332	.130	.284	2.559	.012	.074	.590	.571	.269	.198	.488	2.051
	Comfort	.080	.131	.078	.612	.542	-.180	.340	.521	.067	.047	.369	2.707
	Technology	-.211	.150	-.221	-1.407	.163	-.509	.087	.393	-.152	-.109	.243	4.112
	In-flight Services	.202	.101	.273	2.007	.048	.002	.402	.421	.214	.156	.324	3.087
	Additional Services	.015	.091	.018	.168	.867	-.166	.197	.360	.018	.013	.525	1.906
	Travel Innovation	.171	.078	.245	2.185	.032	.015	.326	.472	.232	.169	.480	2.084

a. Dependent Variable: F7 - Loyalty Sum Mean

Appendix F

Group Statistics

F1 - On a scale from 1 = "not at all important" to 6 = "very important", how important are the following items for you when it comes to choosing an airline?		N	Mean	Std. Deviation	Std. Error Mean
Price	female	133	5.29	0.950	.082
	male	95	5.05	1.105	.113
Safety & Security	female	133	5.62	.803	.070
	male	95	5.37	1.052	.108
On-time performance & punctuality	female	133	5.13	0.933	.081
	male	95	4.96	1.157	.119
Past experience	female	133	5.04	1.083	.094
	male	95	4.84	1.307	.134
Risk handling	female	133	5.17	1.063	.092
	male	95	4.79	1.262	.130
Fast/priority boarding	female	133	3.98	1.479	.128
	male	95	3.97	1.601	.164
Fast disembarking	female	133	3.98	1.331	.115
	male	95	3.93	1.538	.158
Image & Reputation	female	133	4.53	1.265	.110
	male	95	4.45	1.367	.140
Awareness (well-known airline)	female	133	4.50	1.277	.111
	male	95	4.40	1.308	.134
Credibility (trust)	female	133	5.34	0.904	.078
	male	95	5.11	1.036	.106
Word-of-mouth (by relatives, friends)	female	133	4.34	1.249	.108
	male	95	4.04	1.296	.133
Marketing	female	133	3.35	1.256	.109
	male	95	3.20	1.334	.137
Destination offers	female	133	5.18	1.058	.092
	male	95	4.88	1.270	.130
Personal offers (special offers for you)	female	133	4.05	1.367	.119
	male	95	3.91	1.578	.162
National airline	female	133	3.59	1.518	.132
	male	95	3.40	1.759	.180
Helpfulness (by crew)	female	133	4.86	1.102	.096
	male	95	4.74	1.248	.128
Friendliness (by crew)	female	133	5.00	1.015	.088
	male	95	4.97	1.171	.120
Cultural etiquettes (by crew)	female	133	3.84	1.522	.132
	male	95	3.99	1.581	.162
Languages (spoken by crew)	female	133	3.74	1.650	.143
	male	95	4.08	1.499	.154
Flight schedules & convenience	female	133	5.05	1.075	.093
	male	95	4.83	1.217	.125
Seat comfort & leg room	female	133	4.85	1.151	.100

	male	95	4.93	1.169	.120
Modern equipment (new airplanes, new technology)	female	133	4.55	1.311	.114
	male	95	4.56	1.343	.138
In-flight entertainment (screen, newspapers)	female	133	4.36	1.389	.120
	male	95	4.13	1.468	.151
Frequent flyer program	female	133	3.20	1.531	.133
	male	95	3.26	1.639	.168
Online check-in via app or website	female	133	4.47	1.490	.129
	male	95	4.64	1.458	.150
Meals	female	133	4.24	1.452	.126
	male	95	4.03	1.567	.161
Beverages	female	133	4.51	1.439	.125
	male	95	4.33	1.491	.153
Amenities (headset, sleeping mask)	female	133	3.71	1.459	.127
	male	95	3.55	1.549	.159
Sustainability (extra options to reduce CO2 footprint)	female	133	4.18	1.408	.122
	male	95	3.88	1.570	.161
Service for disabilities (wheelchair, service dogs)	female	133	3.66	1.804	.156
	male	95	3.45	1.785	.183
Service for minors (guided boarding & disembarking)	female	133	3.51	1.841	.160
	male	95	3.08	1.832	.188
Select seating	female	133	4.61	1.319	.114
	male	95	4.36	1.320	.135
Priority luggage return	female	133	3.61	1.576	.137
	male	95	3.52	1.563	.160
Book a car or hotel when booking tickets	female	133	2.59	1.572	.136
	male	95	2.45	1.603	.164
Service robots	female	133	2.35	1.365	.118
	male	95	2.37	1.437	.147
Receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp)	female	133	2.97	1.660	.144
	male	95	2.86	1.837	.188
Check-in via biometrics (facial recognition, fingerprints)	female	133	2.82	1.576	.137
	male	95	2.87	1.677	.172

Independent Samples Test

F1 - On a scale from 1 = "not at all important" to 6 = "very important", how important are the following items for you when it comes to choosing an airline?		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower	Upper
Price	Equal variances assumed	.083	.773	1.706	226	.089	.233	.137	-.036	.502
	Equal variances not assumed			1.663	183.140	.098	.233	.140	-.043	.510
Safety & Security	Equal variances assumed	8.335	.004	2.079	226	.039	.256	.123	.013	.498
	Equal variances not assumed			1.989	167.841	.048	.256	.128	.002	.509
On-time performance & punctuality	Equal variances assumed	2.830	.094	1.226	226	.222	.170	.139	-.103	.443
	Equal variances not assumed			1.183	174.711	.238	.170	.144	-.114	.453
Past experience	Equal variances assumed	2.730	.100	1.232	226	.219	.195	.159	-.117	.508
	Equal variances not assumed			1.194	178.248	.234	.195	.164	-.128	.519
Risk handling	Equal variances assumed	3.872	.050	2.483	226	.014	.383	.154	.079	.688
	Equal variances not assumed			2.413	180.325	.017	.383	.159	.070	.697
Fast/priority boarding	Equal variances assumed	1.179	.279	.044	226	.965	.009	.206	-.396	.414
	Equal variances not assumed			.043	192.624	.966	.009	.208	-.402	.420
Fast disembarking	Equal variances assumed	3.559	.061	.307	226	.759	.059	.191	-.318	.435
	Equal variances not assumed			.300	183.974	.765	.059	.196	-.327	.444
Image & Reputation	Equal variances assumed	1.080	.300	.462	226	.644	.081	.176	-.265	.427
	Equal variances not assumed			.456	192.800	.649	.081	.178	-.270	.432
Awareness (well-known airline)	Equal variances assumed	.131	.718	.599	226	.550	.104	.173	-.238	.445
	Equal variances not assumed			.596	199.668	.552	.104	.174	-.239	.447
Credibility (trust)	Equal variances assumed	1.404	.237	1.806	226	.072	.233	.129	-.021	.487
	Equal variances not assumed			1.765	184.970	.079	.233	.132	-.027	.494
Word-of-mouth (by relatives, friends)	Equal variances assumed	.566	.453	1.739	226	.083	.296	.170	-.040	.632
	Equal variances not assumed			1.728	198.004	.086	.296	.171	-.042	.634
Marketing	Equal variances assumed	.245	.621	.886	226	.377	.153	.173	-.188	.495
	Equal variances not assumed			.877	195.120	.382	.153	.175	-.192	.498
Destination offers	Equal variances assumed	2.267	.134	1.916	226	.057	.296	.155	-.008	.601
	Equal variances not assumed			1.859	178.887	.065	.296	.159	-.018	.611
Personal offers (special offers for you)	Equal variances assumed	5.435	.021	.752	226	.453	.147	.196	-.239	.533
	Equal variances not assumed			.734	184.080	.464	.147	.201	-.249	.543
National airline	Equal variances assumed	6.533	.011	.855	226	.393	.186	.218	-.243	.616
	Equal variances not assumed			.835	183.638	.405	.186	.223	-.254	.627
Helpfulness (by crew)	Equal variances assumed	.735	.392	.769	226	.443	.120	.156	-.188	.429
	Equal variances not assumed			.753	186.622	.452	.120	.160	-.195	.435
Friendliness (by crew)	Equal variances assumed	3.659	.057	.217	226	.828	.032	.145	-.255	.318
	Equal variances not assumed			.212	184.188	.832	.032	.149	-.262	.325
Cultural etiquettes (by crew)	Equal variances assumed	.690	.407	-.709	226	.479	-.147	.208	-.557	.262
	Equal variances not assumed			-.705	197.862	.482	-.147	.209	-.560	.265
Languages (spoken by crew)	Equal variances assumed	1.000	.318	-1.592	226	.113	-.340	.213	-.760	.081
	Equal variances not assumed			-1.618	213.292	.107	-.340	.210	-.754	.074
Flight schedules & convenience	Equal variances assumed	1.489	.224	1.448	226	.149	.221	.153	-.080	.522
	Equal variances not assumed			1.418	186.681	.158	.221	.156	-.086	.529
Seat comfort &	Equal variances assumed	.001	.978	-.493	226	.623	-.077	.156	-.383	.230

leg room	Equal variances not assumed			-.491	200.747	.624	-.077	.156	-.384	.231
Modern equipment (new airplanes, new technology)	Equal variances assumed	.331	.566	-.051	226	.960	-.009	.178	-.360	.342
	Equal variances not assumed			-.051	199.703	.960	-.009	.179	-.361	.343
In-flight entertainment (screen, newspapers)	Equal variances assumed	.113	.737	1.228	226	.221	.235	.191	-.142	.611
	Equal variances not assumed			1.217	195.708	.225	.235	.193	-.146	.615
Frequent flyer program	Equal variances assumed	2.139	.145	-.284	226	.777	-.060	.212	-.478	.357
	Equal variances not assumed			-.281	194.065	.779	-.060	.214	-.483	.362
Online check-in via app or website	Equal variances assumed	.463	.497	-.849	226	.397	-.168	.198	-.559	.223
	Equal variances not assumed			-.852	205.244	.395	-.168	.198	-.558	.221
Meals	Equal variances assumed	.923	.338	1.037	226	.301	.209	.202	-.188	.606
	Equal variances not assumed			1.023	192.944	.307	.209	.204	-.194	.612
Beverages	Equal variances assumed	.027	.870	.943	226	.347	.185	.196	-.202	.572
	Equal variances not assumed			.937	198.213	.350	.185	.197	-.204	.574
Amenities (headset, sleeping mask)	Equal variances assumed	1.014	.315	.830	226	.407	.167	.201	-.229	.563
	Equal variances not assumed			.822	195.130	.412	.167	.203	-.234	.568
Sustainability (extra options to reduce CO2 footprint)	Equal variances assumed	2.372	.125	1.493	226	.137	.296	.198	-.095	.687
	Equal variances not assumed			1.466	188.670	.144	.296	.202	-.102	.695
Service for disabilities (wheelchair, service dogs)	Equal variances assumed	.044	.834	.866	226	.387	.209	.241	-.266	.685
	Equal variances not assumed			.868	203.925	.387	.209	.241	-.266	.684
Service for minors (guided boarding & disembarking)	Equal variances assumed	.232	.631	1.731	226	.085	.427	.247	-.059	.913
	Equal variances not assumed			1.732	203.230	.085	.427	.247	-.059	.913
Select seating	Equal variances assumed	.001	.973	1.417	226	.158	.251	.177	-.098	.600
	Equal variances not assumed			1.417	202.522	.158	.251	.177	-.098	.601
Priority luggage return	Equal variances assumed	.000	.985	.442	226	.659	.093	.211	-.322	.509
	Equal variances not assumed			.443	203.570	.659	.093	.211	-.322	.509
Book a car or hotel when booking tickets	Equal variances assumed	.172	.679	.664	226	.507	.141	.213	-.278	.561
	Equal variances not assumed			.662	200.197	.509	.141	.214	-.280	.563
Service robots	Equal variances assumed	.100	.752	-.120	226	.904	-.023	.187	-.392	.347
	Equal variances not assumed			-.119	196.220	.905	-.023	.189	-.395	.350
Receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp)	Equal variances assumed	2.859	.092	.458	226	.648	.107	.233	-0.353	.566
	Equal variances not assumed			.450	189.704	.653	.107	.237	-0.361	.575
Check-in via biometrics (facial recognition, fingerprints)	Equal variances assumed	2.823	.094	-.249	226	.804	-.054	.217	-0.483	.374
	Equal variances not assumed			-.246	194.732	.806	-.054	.220	-0.487	.379

Group Statistics

F3 - On a scale from 1 = "less attractive" to 6 = "more attractive", which services and qualities do you think make an airline more attractive over other airlines, if it would improve/invest in those areas?		N	Mean	Std. Deviation	Std. Error Mean
Price	female	133	5.41	0.985	.085
	male	95	5.39	0.816	.084
Safety & Security	female	133	5.46	.973	.084
	male	95	5.38	.889	.091
On-time performance & punctuality	female	133	5.37	0.900	.078
	male	95	5.38	0.913	.094
Risk handling	female	133	5.14	1.079	.094
	male	95	5.03	1.076	.110
Fast/priority boarding	female	133	4.60	1.291	.112
	male	95	4.63	1.238	.127
Fast disembarking	female	133	4.46	1.276	.111
	male	95	4.53	1.228	.126
Image & Reputation	female	133	4.85	1.197	.104
	male	95	4.81	1.085	.111
Awareness (well-known airline)	female	133	4.62	1.185	.103
	male	95	4.53	1.119	.115
Credibility (trust)	female	133	5.23	1.027	.089
	male	95	5.08	.953	.098
Marketing	female	133	3.92	1.387	.120
	male	95	3.86	1.285	.132
Destination offers	female	133	5.19	1.024	.089
	male	95	4.76	1.209	.124
Personal offers (special offers for you)	female	133	4.32	1.270	.110
	male	95	4.18	1.495	.153
Helpfulness (by crew)	female	133	5.04	1.011	.088
	male	95	5.09	1.092	.112
Friendliness (by crew)	female	133	5.21	0.962	.083
	male	95	5.18	1.091	.112
Cultural etiquettes (by crew)	female	133	4.32	1.287	.112
	male	95	4.29	1.254	.129
Languages (spoken by crew)	female	133	4.52	1.259	.109
	male	95	4.58	1.251	.128
Flight schedules & convenience	female	133	5.20	1.062	.092
	male	95	5.11	1.016	.104
Seat comfort & leg room	female	133	5.29	1.028	.089
	male	95	5.24	0.953	.098
Modern equipment (new airplanes, new technology)	female	133	5.10	1.086	.094
	male	95	5.02	1.072	.110
In-flight entertainment (screen, newspapers)	female	133	4.99	1.138	.099
	male	95	4.66	1.097	.113

Frequent flyer program	female	133	4.17	1.415	.123
	male	95	3.78	1.524	.156
Online check-in via app or website	female	133	4.85	1.246	.108
	male	95	4.65	1.335	.137
Meals	female	133	5.03	1.187	.103
	male	95	4.67	1.250	.128
Beverages	female	133	5.08	1.241	.108
	male	95	4.79	1.175	.121
Amenities (headset, sleeping mask)	female	133	4.58	1.226	.106
	male	95	4.21	1.352	.139
Sustainability (extra options to reduce CO2 footprint)	female	133	4.90	1.266	.110
	male	95	4.56	1.327	.136
Service for disabilities (wheelchair, service dogs)	female	133	4.68	1.328	.115
	male	95	4.26	1.453	.149
Service for minors (guided boarding & disembarking)	female	133	4.46	1.311	.114
	male	95	4.04	1.543	.158
Select seating	female	133	5.20	1.057	.092
	male	95	4.97	1.086	.111
Priority luggage return	female	133	4.41	1.332	.115
	male	95	4.24	1.278	.131
Book a car or hotel when booking tickets	female	133	3.67	1.496	.130
	male	95	3.29	1.610	.165
Service robots	female	133	3.35	1.463	.127
	male	95	3.18	1.564	.160
Receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp)	female	133	3.88	1.533	.133
	male	95	3.64	1.656	.170
Check-in via biometrics (facial recognition, fingerprints)	female	133	3.69	1.447	.125
	male	95	3.71	1.604	.165

Independent Samples Test

F3 - On a scale from 1 = "less attractive" to 6 = "more attractive", which services and qualities do you think make an airline more attractive over other airlines, if it would improve/invest in those areas?		Levene's Test for Equality of Variances		t-test for Equality of Means						
						Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
		F	Sig.	t	df				Lower	Upper
Price	Equal variances assumed	.833	.362	0.134	226	.893	.017	.123	-.227	.260
	Equal variances not assumed			0.138	221.010	.890	.017	.120	-.219	.252
Safety & Security	Equal variances assumed	.000	.995	.632	226	.528	.080	.126	-.169	.328
	Equal variances not assumed			.641	212.733	.522	.080	.124	-.165	.325
On-time performance & punctuality	Equal variances assumed	.015	.902	-.087	226	.931	-.011	.122	-.250	.229
	Equal variances not assumed			-.086	200.878	.931	-.011	.122	-.251	.230
Risk handling	Equal variances assumed	.099	.754	.717	226	.474	.104	.145	-.182	.389
	Equal variances not assumed			.717	202.877	.474	.104	.145	-.182	.389
Fast/priority boarding	Equal variances assumed	.113	.737	-.176	226	.860	-.030	.170	-.366	.306
	Equal variances not assumed			-.178	207.517	.859	-.030	.169	-.364	.304
Fast disembarking	Equal variances assumed	.000	.986	-.401	226	.689	-.068	.169	-.400	.265
	Equal variances not assumed			-.404	207.210	.687	-.068	.168	-.398	.263
Image & Reputation	Equal variances assumed	.331	.565	.253	226	.801	.039	.155	-.266	.344
	Equal variances not assumed			.257	213.544	.797	.039	.152	-.261	.339
Awareness (well-known airline)	Equal variances assumed	.012	.913	.629	226	.530	.098	.156	-.209	.404
	Equal variances not assumed			.635	209.244	.526	.098	.154	-.206	.401
Credibility (trust)	Equal variances assumed	.307	.580	1.056	226	.292	.141	.134	-.123	.405
	Equal variances not assumed			1.069	211.192	.286	.141	.132	-.119	.402
Marketing	Equal variances assumed	.390	.533	.299	226	.765	.054	.181	-.302	.410
	Equal variances not assumed			.303	211.358	.762	.054	.178	-.298	.406
Destination offers	Equal variances assumed	4.244	.041	2.899	226	.004	.430	.148	.138	.722
	Equal variances not assumed			2.819	181.076	.005	.430	.153	.129	.731
Personal offers (special offers for you)	Equal variances assumed	3.466	.064	.745	226	.457	.137	.184	-.225	.499
	Equal variances not assumed			.725	181.525	.469	.137	.189	-.236	.509
Helpfulness (by crew)	Equal variances assumed	.757	.385	-.407	226	.684	-.057	.140	-.334	.220
	Equal variances not assumed			-.402	192.773	.688	-.057	.142	-.338	.223
Friendliness (by crew)	Equal variances assumed	.819	.366	.231	226	.818	.032	.137	-.238	.301
	Equal variances not assumed			.226	186.378	.821	.032	.140	-.244	.307
Cultural etiquettes (by crew)	Equal variances assumed	.008	.929	.123	226	.902	.021	.171	-.316	.358
	Equal variances not assumed			.124	205.780	.902	.021	.170	-.315	.357
Languages (spoken by crew)	Equal variances assumed	.000	.992	-.357	226	.722	-.060	.169	-.393	.272
	Equal variances not assumed			-.357	203.370	.721	-.060	.169	-.392	.272
Flight schedules & convenience	Equal variances assumed	.193	.661	.644	226	.520	.090	.140	-.186	.366
	Equal variances not assumed			.649	207.896	.517	.090	.139	-.184	.364
Seat comfort & leg room	Equal variances assumed	.045	.833	.381	226	.703	.051	.134	-.213	.315
	Equal variances not assumed			.386	211.251	.700	.051	.132	-.210	.312
Modern equipment (new airplanes, new technology)	Equal variances assumed	.034	.854	.529	226	.598	.077	.145	-.209	.363
	Equal variances not assumed			.530	204.245	.597	.077	.145	-.209	.362
In-flight entertainment (screen, news-	Equal variances assumed	1.631	.203	2.186	226	.030	.329	.151	.032	.626
	Equal variances not assumed			2.199	206.932	.029	.329	.150	.034	.625

papers)										
Frequent flyer program	Equal variances assumed	.739	.391	1.969	226	.050	.386	.196	.000	.773
	Equal variances not assumed			1.944	193.237	.053	.386	.199	-.006	.779
Online check-in via app or website	Equal variances assumed	3.119	.079	1.142	226	.255	.197	.172	-.143	.537
	Equal variances not assumed			1.129	193.925	.260	.197	.174	-.147	.541
Meals	Equal variances assumed	1.356	.245	2.186	226	.030	.356	.163	.035	.678
	Equal variances not assumed			2.167	196.101	.031	.356	.164	.032	.681
Beverages	Equal variances assumed	.077	.781	1.752	226	.081	.286	.163	-.036	.607
	Equal variances not assumed			1.768	208.973	.078	.286	.162	-.033	.604
Amenities (headset, sleeping mask)	Equal variances assumed	.462	.497	2.143	226	.033	.368	.172	.030	.707
	Equal variances not assumed			2.108	190.157	.036	.368	.175	.024	.713
Sustainability (extra options to reduce CO2 footprint)	Equal variances assumed	2.568	.110	1.984	226	.048	.344	.174	.002	.686
	Equal variances not assumed			1.969	196.825	.050	.344	.175	-.001	.689
Service for disabilities (wheelchair, service dogs)	Equal variances assumed	.828	.364	2.269	226	.024	.421	.186	.055	.787
	Equal variances not assumed			2.235	191.168	.027	.421	.188	.050	.793
Service for minors (guided boarding & disembarking)	Equal variances assumed	2.484	.116	2.195	226	.029	.417	.190	.043	.790
	Equal variances not assumed			2.137	181.591	.034	.417	.195	.032	.801
Select seating	Equal variances assumed	.010	.920	1.633	226	.104	.235	.144	-.048	.518
	Equal variances not assumed			1.626	199.269	.106	.235	.144	-.050	.519
Priority luggage return	Equal variances assumed	.272	.602	.932	226	.352	.164	.176	-.183	.511
	Equal variances not assumed			.938	207.509	.349	.164	.175	-.180	.508
Book a car or hotel when booking tickets	Equal variances assumed	1.606	.206	1.805	226	.072	.374	.207	-.034	.783
	Equal variances not assumed			1.783	193.313	.076	.374	.210	-.040	.789
Service robots	Equal variances assumed	.359	.550	.862	226	.389	.174	.202	-.224	.573
	Equal variances not assumed			.853	194.161	.395	.174	.205	-.229	.578
Receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp)	Equal variances assumed	1.879	.172	1.116	226	.266	.238	.213	-.182	.657
	Equal variances not assumed			1.101	192.802	.272	.238	.216	-.188	.663
Check-in via biometrics (facial recognition, fingerprints)	Equal variances assumed	1.488	.224	-.067	226	.947	-.014	.203	-.414	.387
	Equal variances not assumed			-.065	189.479	.948	-.014	.207	-.422	.395

Group Statistics

F6 - This is the final question with the following list. We're almost there. On your previous trip, how satisfied were you with the following items, on a scale from 1 = "very dissatisfied" to 6 = "very satisfied"?		N	Mean	Std. Deviation	Std. Error Mean
Price	female	129	4.76	1.081	.095
	male	89	5.07	1.053	.112
Safety & Security	female	131	5.37	.746	.065
	male	95	5.39	.816	.084
On-time performance & punctuality	female	132	4.76	1.559	.136
	male	95	4.91	1.321	.136
Risk handling	female	113	5.06	1.080	.102
	male	74	5.05	1.084	.126
Fast/priority boarding	female	118	4.45	1.430	.132
	male	85	4.66	1.287	.140
Fast disembarking	female	127	4.36	1.295	.115
	male	88	4.68	1.078	.115
Image & Reputation	female	129	4.78	1.201	.106
	male	93	4.80	.995	.103
Awareness (well-known airline)	female	127	4.98	1.120	.099
	male	91	4.90	1.001	.105
Credibility (trust)	female	129	4.96	1.114	.098
	male	89	4.90	.954	.101
Word-of-mouth (by relatives, friends)	female	106	4.70	1.212	.118
	male	65	4.62	1.071	.133
Marketing	female	110	4.19	1.260	.120
	male	72	4.29	1.144	.135
Destination offers	female	122	5.02	1.226	.111
	male	84	4.95	1.108	.121
Personal offers (special offers for you)	female	89	3.75	1.384	.147
	male	61	3.90	1.567	.201
National airline	female	96	4.45	1.464	.149
	male	63	4.67	1.308	.165
Helpfulness (by crew)	female	131	4.95	1.098	.096
	male	93	4.94	1.030	.107
Friendliness (by crew)	female	133	5.10	.952	.083
	male	95	4.98	1.041	.107
Cultural etiquettes (by crew)	female	114	4.75	1.223	.115
	male	86	4.80	1.166	.126
Languages (spoken by crew)	female	125	4.90	1.341	.120
	male	88	5.05	1.113	.119
Flight schedules & convenience	female	130	4.65	1.402	.123
	male	91	4.81	1.192	.125
Seat comfort & leg room	female	132	4.10	1.283	.112
	male	94	4.40	1.314	.136
Modern equipment (new	female	127	3.98	1.428	.127

airplanes, new technology)	male	91	4.35	1.303	.137
In-flight entertainment (screen, newspapers)	female	116	3.66	1.582	.147
	male	85	3.93	1.541	.167
Frequent flyer program	female	80	3.86	1.557	.174
	male	50	3.98	1.392	.197
Online check-in via app or website	female	115	4.94	1.313	.122
	male	80	4.99	1.185	.133
Meals	female	107	3.66	1.602	.155
	male	79	4.14	1.508	.170
Beverages	female	126	4.25	1.533	.137
	male	86	4.52	1.420	.153
Amenities (headset, sleeping mask)	female	84	3.55	1.703	.186
	male	56	4.05	1.420	.190
Sustainability (extra options to reduce CO2 footprint)	female	78	3.41	1.498	.170
	male	58	3.71	1.377	.181
Service for disabilities (wheelchair, service dogs)	female	54	4.35	1.362	.185
	male	28	4.39	.916	.173
Service for minors (guided boarding & disembarking)	female	52	4.10	1.418	.197
	male	30	4.27	1.258	.230
Select seating	female	119	4.27	1.494	.137
	male	84	4.61	1.326	.145
Priority luggage return	female	65	3.65	1.556	.193
	male	45	4.02	1.390	.207
Book a car or hotel when booking tickets	female	44	3.77	1.236	.186
	male	30	4.27	1.258	.230
Service robots	female	37	3.32	1.313	.216
	male	25	4.20	1.225	.245
Receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp)	female	51	3.98	1.556	.218
	male	42	4.45	1.273	.196
Check-in via biometrics (facial recognition, fingerprints)	female	42	3.90	1.559	.241
	male	27	4.22	1.423	.274

Independent Samples Test

F6 - This is the final question with the following list. We're almost there. On your previous trip, how satisfied were you with the following items, on a scale from 1 = "very dissatisfied" to 6 = "very satisfied"?		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Price	Equal variances assumed	.314	.576	-2.088	216	.038	-.308	.147	-.598	-.017
	Equal variances not assumed			-2.098	192.497	.037	-.308	.147	-.597	-.018
Safety & Security	Equal variances assumed	.135	.714	-.220	224	.826	-.023	.105	-.229	.183
	Equal variances not assumed			-.217	191.647	.828	-.023	.106	-.232	.186
On-time performance & punctuality	Equal variances assumed	2.593	.109	-.750	225	.454	-.148	.197	-.536	.241
	Equal variances not assumed			-.770	218.959	.442	-.148	.192	-.526	.230
Risk handling	Equal variances assumed	.273	.602	.049	185	.961	.008	.162	-.311	.327
	Equal variances not assumed			.049	155.801	.961	.008	.162	-.312	.328
Fast/priority boarding	Equal variances assumed	1.464	.228	-1.074	201	.284	-.210	.195	-.595	.175
	Equal variances not assumed			-1.093	191.245	.276	-.210	.192	-.588	.169
Fast disembarking	Equal variances assumed	4.433	.036	-1.903	213	.058	-.320	.168	-.651	.012
	Equal variances not assumed			-1.967	205.867	.051	-.320	.163	-.640	.001
Image & Reputation	Equal variances assumed	3.304	.070	-.135	220	.893	-.021	.152	-.321	.280
	Equal variances not assumed			-.139	215.677	.890	-.021	.148	-.312	.271
Awareness (well-known airline)	Equal variances assumed	1.161	.282	.565	216	.573	.083	.147	-.207	.373
	Equal variances not assumed			.576	205.683	.566	.083	.144	-.202	.368
Credibility (trust)	Equal variances assumed	.795	.373	.430	216	.667	.062	.145	-.223	.348
	Equal variances not assumed			.443	206.059	.658	.062	.141	-.215	.340
Word-of-mouth (by relatives, friends)	Equal variances assumed	1.282	.259	.452	169	.652	.083	.183	-.278	.444
	Equal variances not assumed			.466	148.308	.642	.083	.178	-.268	.433
Marketing	Equal variances assumed	.865	.354	-.547	180	.585	-.101	.184	-.464	.263
	Equal variances not assumed			-.558	161.997	.578	-.101	.181	-.457	.256
Destination offers	Equal variances assumed	.335	.563	.383	204	.702	.064	.167	-.266	.394
	Equal variances not assumed			.390	189.598	.697	.064	.164	-.260	.388
Personal offers (special offers for you)	Equal variances assumed	.398	.529	-.613	148	.541	-.149	.243	-.629	.331
	Equal variances not assumed			-.599	118.237	.551	-.149	.249	-.641	.343
National airline	Equal variances assumed	1.991	.160	-.961	157	.338	-.219	.228	-.669	.231
	Equal variances not assumed			-.983	142.895	.327	-.219	.222	-.658	.221
Helpfulness (by crew)	Equal variances assumed	.000	.990	.076	222	.939	.011	.145	-.275	.297
	Equal variances not assumed			.077	205.574	.939	.011	.144	-.272	.294
Friendliness (by crew)	Equal variances assumed	.302	.583	.893	226	.373	.119	.133	-.143	.381
	Equal variances not assumed			.880	191.243	.380	.119	.135	-.148	.385
Cultural etiquettes (by crew)	Equal variances assumed	.094	.759	-.280	198	.780	-.048	.171	-.386	.290
	Equal variances not assumed			-.282	187.491	.778	-.048	.170	-.384	.288
Languages (spoken by crew)	Equal variances assumed	2.213	.138	-.812	211	.418	-.141	.174	-.485	.202
	Equal variances not assumed			-.838	205.235	.403	-.141	.169	-.474	.191
Flight schedules & convenience	Equal variances assumed	5.210	.023	-.884	219	.378	-.159	.180	-.515	.196
	Equal variances not assumed			-.909	210.789	.364	-.159	.175	-.505	.186
Seat comfort & leg room	Equal variances assumed	.383	.537	-1.748	224	.082	-.306	.175	-.651	.039
	Equal variances not assumed			-1.741	197.512	.083	-.306	.176	-.652	.041
Modern equip-	Equal variances assumed	.059	.808	-1.984	216	.049	-.375	.189	-.748	-.002

ment (new airplanes, new technology)	Equal variances not assumed			-2.014	203.784	.045	-.375	.186	-.743	-.008
In-flight entertainment (screen, newspapers)	Equal variances assumed	.877	.350	-1.189	199	.236	-.266	.223	-.706	.175
	Equal variances not assumed			-1.193	183.766	.234	-.266	.223	-.705	.173
Frequent flyer program	Equal variances assumed	2.041	.156	-.436	128	.664	-.118	.270	-.651	.416
	Equal variances not assumed			-.447	112.790	.656	-.118	.263	-.638	.403
Online check-in via app or website	Equal variances assumed	.542	.463	-.263	193	.793	-.048	.184	-.411	.314
	Equal variances not assumed			-.268	180.373	.789	-.048	.180	-.404	.308
Meals	Equal variances assumed	.885	.348	-2.052	184	.042	-.476	.232	-.933	-.018
	Equal variances not assumed			-2.071	173.456	.040	-.476	.230	-.929	-.022
Beverages	Equal variances assumed	1.089	.298	-1.293	210	.197	-.269	.208	-.680	.141
	Equal variances not assumed			-1.312	191.584	.191	-.269	.205	-.674	.135
Amenities (headset, sleeping mask)	Equal variances assumed	5.753	.018	-1.837	138	.068	-.506	.275	-1.050	.039
	Equal variances not assumed			-1.905	131.171	.059	-.506	.266	-1.031	.019
Sustainability (extra options to reduce CO2 footprint)	Equal variances assumed	.877	.351	-1.182	134	.239	-.297	.251	-.793	.200
	Equal variances not assumed			-1.197	128.082	.234	-.297	.248	-.787	.194
Service for disabilities (wheelchair, service dogs)	Equal variances assumed	4.562	.036	-.143	80	.887	-.041	.286	-.611	.529
	Equal variances not assumed			-.162	74.485	.872	-.041	.254	-.546	.464
Service for minors (guided boarding & disembarking)	Equal variances assumed	.871	.353	-.546	80	.587	-.171	.312	-.792	.451
	Equal variances not assumed			-.564	66.722	.575	-.171	.302	-.774	.433
Select seating	Equal variances assumed	1.428	.233	-1.663	201	.098	-.338	.203	-.739	.063
	Equal variances not assumed			-1.697	190.666	.091	-.338	.199	-.731	.055
Priority luggage return	Equal variances assumed	2.809	.097	-1.301	108	.196	-.376	.289	-.949	.197
	Equal variances not assumed			-1.328	101.126	.187	-.376	.283	-.938	.186
Book a car or hotel when booking tickets	Equal variances assumed	.000	.997	-1.676	72	.098	-.494	.295	-1.082	.094
	Equal variances not assumed			-1.670	61.733	.100	-.494	.296	-1.085	.097
Service robots	Equal variances assumed	.443	.508	-2.645	60	.010	-.876	.331	-1.538	-.213
	Equal variances not assumed			-2.682	54.039	.010	-.876	.327	-1.530	-.221
Receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp)	Equal variances assumed	.920	.340	-1.579	91	.118	-.472	.299	-1.066	.122
	Equal variances not assumed			-1.609	90.998	.111	-.472	.293	-1.055	.111
Check-in via biometrics (facial recognition, fingerprints)	Equal variances assumed	.797	.375	-.854	67	.396	-.317	.372	-1.060	.425
	Equal variances not assumed			-.871	59.225	.387	-.317	.365	-1.047	.412

Appendix G

Ranks

F1 - On a scale from 1 = "not at all important" to 6 = "very important", how important are the following items for you when it comes to choosing an airline?		N	Mean Rank
Price	18-24 years old	60	123.43
	25-34 years old	95	115.75
	35-44 years old	16	128.53
	45-54 years old	15	105.43
	55+	42	96.82
Safety & Security	18-24 years old	60	117.97
	25-34 years old	95	98.31
	35-44 years old	16	129.75
	45-54 years old	15	117.70
	55+	42	139.21
On-time performance & punctuality	18-24 years old	60	109.09
	25-34 years old	95	106.88
	35-44 years old	16	102.78
	45-54 years old	15	130.20
	55+	42	138.31
Past experience	18-24 years old	60	107.33
	25-34 years old	95	112.96
	35-44 years old	16	105.00
	45-54 years old	15	106.77
	55+	42	134.61
Risk handling	18-24 years old	60	115.60
	25-34 years old	95	102.42
	35-44 years old	16	119.88
	45-54 years old	15	124.13
	55+	42	134.76
Fast/priority boarding	18-24 years old	60	98.73
	25-34 years old	95	98.57
	35-44 years old	16	120.53
	45-54 years old	15	148.63
	55+	42	158.57
Fast disembarking	18-24 years old	60	103.53
	25-34 years old	95	104.48
	35-44 years old	16	119.22
	45-54 years old	15	130.80
	55+	42	145.21
Image & Reputation	18-24 years old	60	104.51
	25-34 years old	95	104.62
	35-44 years old	16	96.75
	45-54 years old	15	151.73
	55+	42	144.60
Awareness (well-known airline)	18-24 years old	60	103.84
	25-34 years old	95	106.99
	35-44 years old	16	116.00
	45-54 years old	15	133.33
	55+	42	139.40
Credibility (trust)	18-24 years old	60	108.51
	25-34 years old	95	104.55
	35-44 years old	16	118.00
	45-54 years old	15	131.97
	55+	42	138.00

Word-of-mouth (by relatives, friends)	18-24 years old	60	119.85
	25-34 years old	95	111.75
	35-44 years old	16	107.25
	45-54 years old	15	112.57
	55+	42	116.54
Marketing	18-24 years old	60	123.63
	25-34 years old	95	106.29
	35-44 years old	16	99.56
	45-54 years old	15	88.50
	55+	42	135.00
Destination offers	18-24 years old	60	116.07
	25-34 years old	95	98.38
	35-44 years old	16	139.44
	45-54 years old	15	132.67
	55+	42	132.74
Personal offers (special offers for you)	18-24 years old	60	116.76
	25-34 years old	95	96.21
	35-44 years old	16	128.78
	45-54 years old	15	123.93
	55+	42	143.83
National airline	18-24 years old	60	109.60
	25-34 years old	95	104.57
	35-44 years old	16	102.88
	45-54 years old	15	110.00
	55+	42	149.99
Helpfulness (by crew)	18-24 years old	60	119.37
	25-34 years old	95	105.69
	35-44 years old	16	92.91
	45-54 years old	15	113.90
	55+	42	135.92
Friendliness (by crew)	18-24 years old	60	116.29
	25-34 years old	95	107.42
	35-44 years old	16	98.19
	45-54 years old	15	122.07
	55+	42	131.46
Cultural etiquettes (by crew)	18-24 years old	60	123.63
	25-34 years old	95	105.06
	35-44 years old	16	96.06
	45-54 years old	15	109.27
	55+	42	131.70
Languages (spoken by crew)	18-24 years old	60	114.54
	25-34 years old	95	101.83
	35-44 years old	16	86.22
	45-54 years old	15	121.60
	55+	42	151.33
Flight schedules & convenience	18-24 years old	60	117.74
	25-34 years old	95	99.95
	35-44 years old	16	121.63
	45-54 years old	15	140.97
	55+	42	130.61
Seat comfort & leg room	18-24 years old	60	107.70
	25-34 years old	95	99.69
	35-44 years old	16	125.66
	45-54 years old	15	148.30
	55+	42	141.39

Modern equipment (new airplanes, new technology)	18-24 years old	60	106.85
	25-34 years old	95	103.08
	35-44 years old	16	112.03
	45-54 years old	15	145.10
	55+	42	141.27
In-flight entertainment (screen, newspapers)	18-24 years old	60	109.80
	25-34 years old	95	112.67
	35-44 years old	16	124.34
	45-54 years old	15	141.27
	55+	42	112.05
Frequent flyer program	18-24 years old	60	108.98
	25-34 years old	95	111.37
	35-44 years old	16	103.25
	45-54 years old	15	115.10
	55+	42	133.54
Online check-in via app or website	18-24 years old	60	118.22
	25-34 years old	95	114.32
	35-44 years old	16	116.38
	45-54 years old	15	109.93
	55+	42	110.51
Meals	18-24 years old	60	110.82
	25-34 years old	95	116.02
	35-44 years old	16	97.69
	45-54 years old	15	137.93
	55+	42	114.36
Beverages	18-24 years old	60	118.08
	25-34 years old	95	104.33
	35-44 years old	16	99.72
	45-54 years old	15	141.17
	55+	42	128.51
Amenities (headset, sleeping mask)	18-24 years old	60	120.17
	25-34 years old	95	99.66
	35-44 years old	16	116.13
	45-54 years old	15	138.20
	55+	42	130.88
Sustainability (extra options to reduce CO2 footprint)	18-24 years old	60	126.93
	25-34 years old	95	88.63
	35-44 years old	16	102.47
	45-54 years old	15	142.93
	55+	42	149.70
Service for disabilities (wheelchair, service dogs)	18-24 years old	60	126.47
	25-34 years old	95	92.54
	35-44 years old	16	100.34
	45-54 years old	15	137.03
	55+	42	144.43
Service for minors (guided boarding & disembarking)	18-24 years old	60	128.69
	25-34 years old	95	88.81
	35-44 years old	16	102.84
	45-54 years old	15	135.43
	55+	42	149.30
Select seating	18-24 years old	60	115.17
	25-34 years old	95	101.48
	35-44 years old	16	116.16
	45-54 years old	15	125.83
	55+	42	138.32

Priority luggage return	18-24 years old	60	120.47
	25-34 years old	95	97.32
	35-44 years old	16	102.59
	45-54 years old	15	137.37
	55+	42	141.20
Book a car or hotel when booking tickets	18-24 years old	60	131.06
	25-34 years old	95	92.94
	35-44 years old	16	118.13
	45-54 years old	15	127.60
	55+	42	133.55
Service robots	18-24 years old	60	120.70
	25-34 years old	95	104.33
	35-44 years old	16	131.06
	45-54 years old	15	118.33
	55+	42	120.96
Receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp)	18-24 years old	60	127.52
	25-34 years old	95	103.79
	35-44 years old	16	116.41
	45-54 years old	15	113.07
	55+	42	119.92
Check-in via biometrics (facial recognition, fingerprints)	18-24 years old	60	125.11
	25-34 years old	95	100.37
	35-44 years old	16	107.38
	45-54 years old	15	102.73
	55+	42	138.21

N = 228

Test Statistics[a,b]

F1 - On a scale from 1 = "not at all important" to 6 = "very important", how important are the following items for you when it comes to choosing an airline?	Chi-Square	df	Asymp. Sig.
Price	6.062	4	.195
Safety & Security	20.129	4	.000
On-time performance & punctuality	9.618	4	.047
Past experience	5.811	4	.214
Risk handling	8.614	4	.072
Fast/priority boarding	33.176	4	.000
Fast disembarking	14.664	4	.005
Image & Reputation	19.380	4	.001
Awareness (well-known airline)	10.673	4	.030
Credibility (trust)	10.848	4	.028
Word-of-mouth (by relatives, friends)	.855	4	.931
Marketing	10.411	4	.034
Destination offers	14.160	4	.007
Personal offers (special offers for you)	17.421	4	.002
National airline	15.697	4	.003
Helpfulness (by crew)	8.895	4	.064
Friendliness (by crew)	5.686	4	.224
Cultural etiquettes (by crew)	7.565	4	.109
Languages (spoken by crew)	20.472	4	.000
Flight schedules & convenience	11.014	4	.026
Seat comfort & leg room	18.452	4	.001
Modern equipment (new airplanes, new technology)	14.886	4	.005
In-flight entertainment (screen, newspapers)	3.419	4	.490
Frequent flyer program	4.764	4	.312
Online check-in via app or website	.459	4	.977
Meals	3.320	4	.506
Beverages	8.050	4	.090
Amenities (headset, sleeping mask)	10.152	4	.038
Sustainability (extra options to reduce CO2 footprint)	33.340	4	.000
Service for disabilities (wheelchair, service dogs)	24.371	4	.000
Service for minors (guided boarding & disembarking)	31.948	4	.000
Select seating	10.258	4	.036
Priority luggage return	16.683	4	.002
Book a car or hotel when booking tickets	19.507	4	.001
Service robots	4.620	4	.329
Receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp)	5.389	4	.250
Check-in via biometrics (facial recognition, fingerprints)	12.576	4	.014

a. Kruskal Wallis Test

b. Grouping Variable: D6 - Could you categorize your age?

Ranks

F3 - On a scale from 1 = "less attractive" to 6 = "more attractive", which services and qualities do you think make an airline more attractive over other airlines, if it would improve/invest in those areas?		N	Mean Rank
Price	18-24 years old	60	109.06
	25-34 years old	95	113.29
	35-44 years old	16	139.03
	45-54 years old	15	113.40
	55+	42	116.05
Safety & Security	18-24 years old	60	112.86
	25-34 years old	95	106.44
	35-44 years old	16	107.56
	45-54 years old	15	121.33
	55+	42	135.29
On-time performance & punctuality	18-24 years old	60	111.58
	25-34 years old	95	105.42
	35-44 years old	16	101.94
	45-54 years old	15	116.43
	55+	42	143.31
Risk handling	18-24 years old	60	112.42
	25-34 years old	95	104.52
	35-44 years old	16	96.84
	45-54 years old	15	126.57
	55+	42	142.46
Fast/priority boarding	18-24 years old	60	110.88
	25-34 years old	95	100.05
	35-44 years old	16	121.66
	45-54 years old	15	137.53
	55+	42	141.40
Fast disembarking	18-24 years old	60	110.00
	25-34 years old	95	104.86
	35-44 years old	16	115.94
	45-54 years old	15	142.90
	55+	42	132.04
Image & Reputation	18-24 years old	60	112.84
	25-34 years old	95	110.41
	35-44 years old	16	95.16
	45-54 years old	15	105.37
	55+	42	136.75
Awareness (well-known airline)	18-24 years old	60	116.43
	25-34 years old	95	108.24
	35-44 years old	16	102.63
	45-54 years old	15	104.80
	55+	42	133.89
Credibility (trust)	18-24 years old	60	112.39
	25-34 years old	95	110.83
	35-44 years old	16	85.41
	45-54 years old	15	121.17
	55+	42	134.51
Marketing	18-24 years old	60	116.59
	25-34 years old	95	108.64
	35-44 years old	16	91.00
	45-54 years old	15	120.97
	55+	42	131.42
Destination offers	18-24 years old	60	124.01

	25-34 years old	95	105.34
	35-44 years old	16	112.69
	45-54 years old	15	101.77
	55+	42	126.87
Personal offers (special offers for you)	18-24 years old	60	113.01
	25-34 years old	95	106.57
	35-44 years old	16	115.28
	45-54 years old	15	119.03
	55+	42	132.64
Helpfulness (by crew)	18-24 years old	60	114.46
	25-34 years old	95	107.79
	35-44 years old	16	97.16
	45-54 years old	15	117.70
	55+	42	135.19
Friendliness (by crew)	18-24 years old	60	115.72
	25-34 years old	95	105.21
	35-44 years old	16	95.63
	45-54 years old	15	133.33
	55+	42	134.24
Cultural etiquettes (by crew)	18-24 years old	60	119.15
	25-34 years old	95	107.52
	35-44 years old	16	98.69
	45-54 years old	15	124.53
	55+	42	126.08
Languages (spoken by crew)	18-24 years old	60	121.83
	25-34 years old	95	107.44
	35-44 years old	16	88.25
	45-54 years old	15	100.77
	55+	42	134.90
Flight schedules & convenience	18-24 years old	60	117.58
	25-34 years old	95	108.06
	35-44 years old	16	100.63
	45-54 years old	15	116.67
	55+	42	129.19
Seat comfort & leg room	18-24 years old	60	111.39
	25-34 years old	95	108.93
	35-44 years old	16	118.88
	45-54 years old	15	106.40
	55+	42	132.76
Modern equipment (new airplanes, new technology)	18-24 years old	60	115.13
	25-34 years old	95	105.57
	35-44 years old	16	111.19
	45-54 years old	15	125.70
	55+	42	131.07
In-flight entertainment (screen, newspapers)	18-24 years old	60	118.15
	25-34 years old	95	116.55
	35-44 years old	16	130.53
	45-54 years old	15	118.10
	55+	42	97.26
Frequent flyer program	18-24 years old	60	128.68
	25-34 years old	95	107.70
	35-44 years old	16	107.97
	45-54 years old	15	107.93
	55+	42	114.46
Online check-in via app or website	18-24 years old	60	130.67

	25-34 years old	95	105.32
	35-44 years old	16	112.41
	45-54 years old	15	122.83
	55+	42	110.00
Meals	18-24 years old	60	121.72
	25-34 years old	95	109.75
	35-44 years old	16	107.25
	45-54 years old	15	121.77
	55+	42	115.11
Beverages	18-24 years old	60	123.50
	25-34 years old	95	104.25
	35-44 years old	16	102.81
	45-54 years old	15	128.43
	55+	42	124.31
Amenities (headset, sleeping mask)	18-24 years old	60	133.16
	25-34 years old	95	106.08
	35-44 years old	16	112.72
	45-54 years old	15	111.27
	55+	42	108.71
Sustainability (extra options to reduce CO2 footprint)	18-24 years old	60	133.86
	25-34 years old	95	100.84
	35-44 years old	16	96.91
	45-54 years old	15	119.97
	55+	42	122.50
Service for disabilities (wheelchair, service dogs)	18-24 years old	60	131.76
	25-34 years old	95	103.38
	35-44 years old	16	73.94
	45-54 years old	15	113.90
	55+	42	130.67
Service for minors (guided boarding & disembarking)	18-24 years old	60	127.05
	25-34 years old	95	100.19
	35-44 years old	16	82.44
	45-54 years old	15	127.20
	55+	42	136.62
Select seating	18-24 years old	60	126.73
	25-34 years old	95	99.79
	35-44 years old	16	111.69
	45-54 years old	15	113.93
	55+	42	131.57
Priority luggage return	18-24 years old	60	127.20
	25-34 years old	95	103.16
	35-44 years old	16	96.75
	45-54 years old	15	123.63
	55+	42	125.50
Book a car or hotel when booking tickets	18-24 years old	60	136.59
	25-34 years old	95	106.75
	35-44 years old	16	113.22
	45-54 years old	15	111.23
	55+	42	102.13
Service robots	18-24 years old	60	137.35
	25-34 years old	95	109.94
	35-44 years old	16	128.13
	45-54 years old	15	98.97
	55+	42	92.54
Receiving flight info & ticket via chatbots	18-24 years old	60	129.29

(Facebook Messenger, WhatsApp)	25-34 years old	95	108.68
	35-44 years old	16	114.81
	45-54 years old	15	107.27
	55+	42	108.99
Check-in via biometrics (facial recognition, fingerprints)	18-24 years old	60	134.20
	25-34 years old	95	105.32
	35-44 years old	16	114.06
	45-54 years old	15	109.13
	55+	42	109.20

N = 228

Test Statistics[a,b]

F3 - On a scale from 1 = "less attractive" to 6 = "more attractive", which services and qualities do you think make an airline more attractive over other airlines, if it would improve/invest in those areas?	Chi-Square	df	Asymp. Sig.
Price	3.506	4	.477
Safety & Security	8.208	4	.084
On-time performance & punctuality	13.504	4	.009
Risk handling	13.220	4	.010
Fast/priority boarding	14.687	4	.005
Fast disembarking	8.588	4	.072
Image & Reputation	7.457	4	.114
Awareness (well-known airline)	5.765	4	.217
Credibility (trust)	8.716	4	.069
Marketing	6.056	4	.195
Destination offers	5.790	4	.215
Personal offers (special offers for you)	4.908	4	.297
Helpfulness (by crew)	7.074	4	.132
Friendliness (by crew)	9.687	4	.046
Cultural etiquettes (by crew)	4.172	4	.383
Languages (spoken by crew)	9.662	4	.047
Flight schedules & convenience	4.501	4	.342
Seat comfort & leg room	5.324	4	.256
Modern equipment (new airplanes, new technology)	5.536	4	.237
In-flight entertainment (screen, newspapers)	4.529	4	.339
Frequent flyer program	4.269	4	.371
Online check-in via app or website	6.409	4	.171
Meals	1.759	4	.780
Beverages	6.225	4	.183
Amenities (headset, sleeping mask)	7.133	4	.129
Sustainability (extra options to reduce CO2 footprint)	12.122	4	.016
Service for disabilities (wheelchair, service dogs)	16.384	4	.003
Service for minors (guided boarding & disembarking)	16.522	4	.002
Select seating	11.072	4	.026
Priority luggage return	8.062	4	.089
Book a car or hotel when booking tickets	9.917	4	.042
Service robots	14.435	4	.006
Receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp)	4.374	4	.358
Check-in via biometrics (facial recognition, fingerprints)	7.905	4	.095

a. Kruskal Wallis Test

b. Grouping Variable: D6 - Could you categorize your age?

Ranks

F6 - This is the final question with the following list. We're almost there. On your previous trip, how satisfied were you with the following items, on a scale from 1 = "very dissatisfied" to 6 = "very satisfied"?		N	Mean Rank
Price	18-24 years old	59	115.42
	25-34 years old	88	96.03
	35-44 years old	15	81.60
	45-54 years old	15	102.33
	55+	41	142.73
Safety & Security	18-24 years old	59	108.93
	25-34 years old	94	102.81
	35-44 years old	16	120.50
	45-54 years old	15	100.80
	55+	42	145.71
On-time performance & punctuality	18-24 years old	59	106.48
	25-34 years old	95	106.76
	35-44 years old	16	129.00
	45-54 years old	15	91.63
	55+	42	143.21
Risk handling	18-24 years old	51	88.50
	25-34 years old	81	84.27
	35-44 years old	10	128.10
	45-54 years old	14	89.46
	55+	31	119.53
Fast/priority boarding	18-24 years old	53	96.47
	25-34 years old	80	94.02
	35-44 years old	16	119.84
	45-54 years old	14	84.46
	55+	40	124.29
Fast disembarking	18-24 years old	57	104.77
	25-34 years old	87	104.68
	35-44 years old	16	114.81
	45-54 years old	15	91.30
	55+	40	123.36
Image & Reputation	18-24 years old	59	110.80
	25-34 years old	91	102.92
	35-44 years old	16	127.81
	45-54 years old	15	102.30
	55+	41	128.56
Awareness (well-known airline)	18-24 years old	59	104.61
	25-34 years old	87	103.32
	35-44 years old	16	126.44
	45-54 years old	15	89.83
	55+	41	130.23
Credibility (trust)	18-24 years old	58	106.82
	25-34 years old	89	102.61
	35-44 years old	16	120.91
	45-54 years old	14	95.54
	55+	41	128.56
Word-of-mouth (by relatives, friends)	18-24 years old	49	86.53
	25-34 years old	73	82.32
	35-44 years old	10	75.20
	45-54 years old	10	71.80
	55+	29	103.00
Marketing	18-24 years old	51	93.42

	25-34 years old	77	86.48
	35-44 years old	10	99.05
	45-54 years old	11	91.64
	55+	33	97.91
Destination offers	18-24 years old	58	100.78
	25-34 years old	80	91.98
	35-44 years old	15	117.60
	45-54 years old	13	99.38
	55+	40	126.55
Personal offers (special offers for you)	18-24 years old	45	75.88
	25-34 years old	58	68.58
	35-44 years old	9	79.56
	45-54 years old	10	66.65
	55+	28	91.09
National airline	18-24 years old	40	81.14
	25-34 years old	68	77.20
	35-44 years old	7	84.29
	45-54 years old	13	63.62
	55+	31	90.58
Helpfulness (by crew)	18-24 years old	60	115.35
	25-34 years old	93	102.53
	35-44 years old	15	125.97
	45-54 years old	15	118.03
	55+	41	124.00
Friendliness (by crew)	18-24 years old	60	121.14
	25-34 years old	95	105.28
	35-44 years old	16	113.66
	45-54 years old	15	123.00
	55+	42	123.14
Cultural etiquettes (by crew)	18-24 years old	58	99.99
	25-34 years old	79	93.61
	35-44 years old	14	115.21
	45-54 years old	12	96.67
	55+	37	111.68
Languages (spoken by crew)	18-24 years old	57	104.86
	25-34 years old	86	105.06
	35-44 years old	15	132.07
	45-54 years old	14	96.82
	55+	41	108.35
Flight schedules & convenience	18-24 years old	59	102.60
	25-34 years old	90	111.71
	35-44 years old	15	147.63
	45-54 years old	15	82.30
	55+	42	118.45
Seat comfort & leg room	18-24 years old	59	103.29
	25-34 years old	94	115.05
	35-44 years old	16	120.19
	45-54 years old	15	106.13
	55+	42	124.46
Modern equipment (new airplanes, new technology)	18-24 years old	58	87.04
	25-34 years old	92	106.54
	35-44 years old	15	130.47
	45-54 years old	14	113.86
	55+	39	140.26

In-flight entertainment (screen, news-papers)	18-24 years old	56	93.27
	25-34 years old	83	101.68
	35-44 years old	14	78.07
	45-54 years old	13	107.92
	55+	35	118.36
Frequent flyer program	18-24 years old	38	60.66
	25-34 years old	57	62.69
	35-44 years old	8	58.25
	45-54 years old	9	65.67
	55+	18	87.75
Online check-in via app or website	18-24 years old	50	95.99
	25-34 years old	89	99.02
	35-44 years old	14	99.04
	45-54 years old	13	63.92
	55+	29	113.10
Meals	18-24 years old	49	83.91
	25-34 years old	76	98.61
	35-44 years old	15	77.17
	45-54 years old	12	88.38
	55+	34	104.91
Beverages	18-24 years old	58	105.00
	25-34 years old	83	115.20
	35-44 years old	15	73.13
	45-54 years old	15	91.30
	55+	41	108.77
Amenities (headset, sleeping mask)	18-24 years old	46	61.49
	25-34 years old	53	75.82
	35-44 years old	10	51.40
	45-54 years old	10	67.50
	55+	21	87.33
Sustainability (extra options to reduce C02 footprint)	18-24 years old	43	56.77
	25-34 years old	49	68.13
	35-44 years old	9	66.39
	45-54 years old	9	84.11
	55+	26	83.92
Service for disabilities (wheelchair, service dogs)	18-24 years old	34	44.01
	25-34 years old	28	36.55
	35-44 years old	5	54.40
	45-54 years old	5	24.00
	55+	10	49.10
Service for minors (guided boarding & disembarking)	18-24 years old	32	43.34
	25-34 years old	28	38.54
	35-44 years old	7	50.71
	45-54 years old	6	30.00
	55+	9	44.67
Select seating	18-24 years old	56	100.21
	25-34 years old	84	107.13
	35-44 years old	15	87.20
	45-54 years old	14	75.14
	55+	34	109.88
Priority luggage return	18-24 years old	36	53.54
	25-34 years old	38	58.89
	35-44 years old	7	38.93
	45-54 years old	10	50.40
	55+	19	61.21

Book a car or hotel when booking tickets	18-24 years old	29	38.81
	25-34 years old	28	34.27
	35-44 years old	3	37.17
	45-54 years old	8	36.19
	55+	6	48.17
Service robots	18-24 years old	20	25.70
	25-34 years old	28	34.70
	35-44 years old	3	37.67
	45-54 years old	7	29.29
	55+	4	37.38
Receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp)	18-24 years old	27	43.48
	25-34 years old	42	47.86
	35-44 years old	6	28.75
	45-54 years old	6	49.25
	55+	12	59.92
Check-in via biometrics (facial recognition, fingerprints)	18-24 years old	28	34.68
	25-34 years old	26	36.19
	35-44 years old	3	37.33
	45-54 years old	6	28.92
	55+	6	36.25

N differs per variable

Test Statistics[a,b]

F6 - This is the final question with the following list. We're almost there. On your previous trip, how satisfied were you with the following items, on a scale from 1 = "very dissatisfied" to 6 = "very satisfied"?	Chi-Square	df	Asymp. Sig.
Price	20.920	4	.000
Safety & Security	16.965	4	.002
On-time performance & punctuality	14.354	4	.006
Risk handling	16.040	4	.003
Fast/priority boarding	11.107	4	.025
Fast disembarking	4.392	4	.356
Image & Reputation	6.384	4	.172
Awareness (well-known airline)	9.126	4	.058
Credibility (trust)	6.763	4	.149
Word-of-mouth (by relatives, friends)	5.548	4	.236
Marketing	1.574	4	.813
Destination offers	11.288	4	.024
Personal offers (special offers for you)	5.850	4	.211
National airline	3.857	4	.426
Helpfulness (by crew)	4.823	4	.306
Friendliness (by crew)	3.875	4	.423
Cultural etiquettes (by crew)	3.756	4	.440
Languages (spoken by crew)	3.430	4	.489
Flight schedules & convenience	10.338	4	.035
Seat comfort & leg room	3.211	4	.523
Modern equipment (new airplanes, new technology)	19.509	4	.001
In-flight entertainment (screen, newspapers)	6.700	4	.153
Frequent flyer program	7.817	4	.099
Online check-in via app or website	7.780	4	.100
Meals	5.477	4	.242
Beverages	7.535	4	.110
Amenities (headset, sleeping mask)	9.392	4	.052
Sustainability (extra options to reduce C02 footprint)	9.790	4	.044
Service for disabilities (wheelchair, service dogs)	7.300	4	.121
Service for minors (guided boarding & disembarking)	3.446	4	.486
Select seating	5.476	4	.242
Priority luggage return	3.480	4	.481
Book a car or hotel when booking tickets	2.405	4	.662
Service robots	4.069	4	.397
Receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp)	6.337	4	.175
Check-in via biometrics (facial recognition)	0.743	4	.946

a. Kruskal Wallis Test

b. Grouping Variable: D6 - Could you categorize your age?

Appendix H

Ranks

F1 - On a scale from 1 = "not at all important" to 6 = "very important", how important are the following items for you when it comes to choosing an airline?		N	Mean Rank
Price	1 time	33	124.23
	2-5 times	123	111.16
	6-10 times	42	118.14
	11 times or more	30	112.38
Safety & Security	1 time	33	121.09
	2-5 times	123	119.30
	6-10 times	42	104.82
	11 times or more	30	101.13
On-time performance & punctuality	1 time	33	125.91
	2-5 times	123	114.67
	6-10 times	42	98.12
	11 times or more	30	124.20
Past experience	1 time	33	109.17
	2-5 times	123	117.32
	6-10 times	42	103.49
	11 times or more	30	124.23
Risk handling	1 time	33	128.64
	2-5 times	123	113.89
	6-10 times	42	101.79
	11 times or more	30	119.27
Fast/priority boarding	1 time	33	121.91
	2-5 times	123	117.98
	6-10 times	42	100.15
	11 times or more	30	112.18
Fast disembarking	1 time	33	119.52
	2-5 times	123	115.43
	6-10 times	42	99.90
	11 times or more	30	125.62
Image & Reputation	1 time	33	119.82
	2-5 times	123	118.97
	6-10 times	42	89.25
	11 times or more	30	125.68
Awareness (well-known airline)	1 time	33	121.09
	2-5 times	123	118.08
	6-10 times	42	91.48
	11 times or more	30	124.82
Credibility (trust)	1 time	33	125.33
	2-5 times	123	111.38
	6-10 times	42	106.21
	11 times or more	30	126.97
Word-of-mouth (by relatives, friends)	1 time	33	100.15
	2-5 times	123	114.41
	6-10 times	42	107.33
	11 times or more	30	140.68
Marketing	1 time	33	108.41
	2-5 times	123	117.47
	6-10 times	42	105.46
	11 times or more	30	121.68
Destination offers	1 time	33	114.58
	2-5 times	123	111.00

	6-10 times	42	105.98
	11 times or more	30	140.70
Personal offers (special offers for you)	1 time	33	117.05
	2-5 times	123	111.48
	6-10 times	42	112.58
	11 times or more	30	126.75
National airline	1 time	33	124.71
	2-5 times	123	112.65
	6-10 times	42	110.68
	11 times or more	30	116.20
Helpfulness (by crew)	1 time	33	126.44
	2-5 times	123	113.92
	6-10 times	42	94.10
	11 times or more	30	132.32
Friendliness (by crew)	1 time	33	122.00
	2-5 times	123	116.58
	6-10 times	42	95.00
	11 times or more	30	125.02
Cultural etiquettes (by crew)	1 time	33	109.23
	2-5 times	123	116.35
	6-10 times	42	116.71
	11 times or more	30	109.60
Languages (spoken by crew)	1 time	33	134.18
	2-5 times	123	119.00
	6-10 times	42	96.93
	11 times or more	30	99.00
Flight schedules & convenience	1 time	33	115.91
	2-5 times	123	110.59
	6-10 times	42	101.79
	11 times or more	30	146.78
Seat comfort & leg room	1 time	33	133.47
	2-5 times	123	115.57
	6-10 times	42	91.62
	11 times or more	30	121.27
Modern equipment (new airplanes, new technology)	1 time	33	116.02
	2-5 times	123	115.27
	6-10 times	42	100.12
	11 times or more	30	129.82
In-flight entertainment (screen, newspapers)	1 time	33	111.56
	2-5 times	123	118.72
	6-10 times	42	100.58
	11 times or more	30	119.93
Frequent flyer program	1 time	33	99.09
	2-5 times	123	108.30
	6-10 times	42	118.87
	11 times or more	30	150.75
Online check-in via app or website	1 time	33	85.06
	2-5 times	123	116.19
	6-10 times	42	106.68
	11 times or more	30	150.90
Meals	1 time	33	114.21
	2-5 times	123	112.40
	6-10 times	42	104.50
	11 times or more	30	137.43

Beverages	1 time	33	129.59
	2-5 times	123	113.19
	6-10 times	42	95.61
	11 times or more	30	129.72
Amenities (headset, sleeping mask)	1 time	33	125.52
	2-5 times	123	115.59
	6-10 times	42	99.38
	11 times or more	30	119.10
Sustainability (extra options to reduce CO2 footprint)	1 time	33	123.24
	2-5 times	123	118.63
	6-10 times	42	98.38
	11 times or more	30	110.50
Service for disabilities (wheelchair, service dogs)	1 time	33	138.06
	2-5 times	123	112.68
	6-10 times	42	101.19
	11 times or more	30	114.67
Service for minors (guided boarding & disembarking)	1 time	33	133.83
	2-5 times	123	113.33
	6-10 times	42	104.30
	11 times or more	30	112.33
Select seating	1 time	33	120.97
	2-5 times	123	110.07
	6-10 times	42	101.76
	11 times or more	30	143.37
Priority luggage return	1 time	33	103.92
	2-5 times	123	111.99
	6-10 times	42	103.65
	11 times or more	30	151.60
Book a car or hotel when booking tickets	1 time	33	144.11
	2-5 times	123	110.93
	6-10 times	42	104.36
	11 times or more	30	110.75
Service robots	1 time	33	117.98
	2-5 times	123	111.87
	6-10 times	42	116.31
	11 times or more	30	118.92
Receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp)	1 time	33	118.44
	2-5 times	123	109.37
	6-10 times	42	112.77
	11 times or more	30	133.63
Check-in via biometrics (facial recognition, fingerprints)	1 time	33	113.52
	2-5 times	123	118.19
	6-10 times	42	102.24
	11 times or more	30	117.63

N = 228

Test Statistics[a,b]

F1 - On a scale from 1 = "not at all important" to 6 = "very important", how important are the following items for you when it comes to choosing an airline?	Chi-Square	df	Asymp. Sig.
Price	1.401	3	.705
Safety & Security	4.949	3	.176
On-time performance & punctuality	4.785	3	.188
Past experience	2.529	3	.470
Risk handling	3.680	3	.298
Fast/priority boarding	2.895	3	.408
Fast disembarking	3.282	3	.350
Image & Reputation	8.305	3	.040
Awareness (well-known airline)	6.972	3	.073
Credibility (trust)	3.462	3	.326
Word-of-mouth (by relatives, friends)	7.193	3	.066
Marketing	1.773	3	.621
Destination offers	6.631	3	.085
Personal offers (special offers for you)	1.433	3	.698
National airline	1.082	3	.781
Helpfulness (by crew)	7.951	3	.047
Friendliness (by crew)	5.563	3	.135
Cultural etiquettes (by crew)	0.540	3	.910
Languages (spoken by crew)	8.460	3	.037
Flight schedules & convenience	10.258	3	.016
Seat comfort & leg room	8.929	3	.030
Modern equipment (new airplanes, new technology)	3.928	3	.269
In-flight entertainment (screen, newspapers)	2.768	3	.429
Frequent flyer program	12.567	3	.006
Online check-in via app or website	17.504	3	.001
Meals	4.939	3	.176
Beverages	7.235	3	.065
Amenities (headset, sleeping mask)	3.430	3	.330
Sustainability (extra options to reduce CO2 footprint)	3.832	3	.280
Service for disabilities (wheelchair, service dogs)	6.199	3	.102
Service for minors (guided boarding & disembarking)	4.046	3	.257
Select seating	8.709	3	.033
Priority luggage return	12.043	3	.007
Book a car or hotel when booking tickets	8.741	3	.033
Service robots	0.493	3	.920
Receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp)	3.578	3	.311
Check-in via biometrics (facial recognition, fingerprints)	2.002	3	.572

a. Kruskal Wallis Test

b. Grouping Variable: D1 - How many flights have you taken in total in the last 24 months? Please see round trips as one flight.

Ranks

F3 - On a scale from 1 = "less attractive" to 6 = "more attractive", which services and qualities do you think make an airline more attractive over other airlines, if it would improve/invest in those areas?		N	Mean Rank
Price	1 time	33	108.74
	2-5 times	123	116.87
	6-10 times	42	116.29
	11 times or more	30	108.63
Safety & Security	1 time	33	118.74
	2-5 times	123	116.06
	6-10 times	42	112.05
	11 times or more	30	106.88
On-time performance & punctuality	1 time	33	104.77
	2-5 times	123	116.93
	6-10 times	42	115.10
	11 times or more	30	114.40
Risk handling	1 time	33	125.26
	2-5 times	123	114.11
	6-10 times	42	110.77
	11 times or more	30	109.47
Fast/priority boarding	1 time	33	115.23
	2-5 times	123	118.20
	6-10 times	42	109.57
	11 times or more	30	105.42
Fast disembarking	1 time	33	111.59
	2-5 times	123	117.49
	6-10 times	42	105.50
	11 times or more	30	118.05
Image & Reputation	1 time	33	111.05
	2-5 times	123	115.44
	6-10 times	42	100.58
	11 times or more	30	133.93
Awareness (well-known airline)	1 time	33	116.03
	2-5 times	123	113.15
	6-10 times	42	100.54
	11 times or more	30	137.92
Credibility (trust)	1 time	33	121.17
	2-5 times	123	111.47
	6-10 times	42	110.38
	11 times or more	30	125.35
Marketing	1 time	33	110.17
	2-5 times	123	118.56
	6-10 times	42	104.54
	11 times or more	30	116.58
Destination offers	1 time	33	122.47
	2-5 times	123	111.67
	6-10 times	42	110.93
	11 times or more	30	122.33
Personal offers (special offers for you)	1 time	33	126.64
	2-5 times	123	114.07
	6-10 times	42	104.83
	11 times or more	30	116.47
Helpfulness (by crew)	1 time	33	119.02
	2-5 times	123	113.55
	6-10 times	42	110.95

	11 times or more	30	118.38
Friendliness (by crew)	1 time	33	119.85
	2-5 times	123	115.47
	6-10 times	42	103.30
	11 times or more	30	120.32
Cultural etiquettes (by crew)	1 time	33	116.35
	2-5 times	123	116.13
	6-10 times	42	111.75
	11 times or more	30	109.62
Languages (spoken by crew)	1 time	33	133.77
	2-5 times	123	117.29
	6-10 times	42	98.71
	11 times or more	30	103.97
Flight schedules & convenience	1 time	33	120.47
	2-5 times	123	113.04
	6-10 times	42	102.46
	11 times or more	30	130.77
Seat comfort & leg room	1 time	33	127.18
	2-5 times	123	117.74
	6-10 times	42	95.76
	11 times or more	30	113.48
Modern equipment (new airplanes, new technology)	1 time	33	111.98
	2-5 times	123	114.20
	6-10 times	42	107.85
	11 times or more	30	127.80
In-flight entertainment (screen, newspapers)	1 time	33	107.39
	2-5 times	123	115.21
	6-10 times	42	104.33
	11 times or more	30	133.63
Frequent flyer program	1 time	33	108.50
	2-5 times	123	103.07
	6-10 times	42	120.77
	11 times or more	30	159.18
Online check-in via app or website	1 time	33	96.92
	2-5 times	123	114.80
	6-10 times	42	108.73
	11 times or more	30	140.70
Meals	1 time	33	116.24
	2-5 times	123	113.95
	6-10 times	42	98.01
	11 times or more	30	137.92
Beverages	1 time	33	123.23
	2-5 times	123	112.95
	6-10 times	42	99.60
	11 times or more	30	132.13
Amenities (headset, sleeping mask)	1 time	33	119.88
	2-5 times	123	112.30
	6-10 times	42	105.46
	11 times or more	30	130.23
Sustainability (extra options to reduce CO2 footprint)	1 time	33	125.26
	2-5 times	123	109.54
	6-10 times	42	113.58
	11 times or more	30	124.30
Service for disabilities (wheelchair, service dogs)	1 time	33	121.70
	2-5 times	123	111.15

	6-10 times	42	111.86
	11 times or more	30	124.00
Service for minors (guided boarding & disembarking)	1 time	33	127.27
	2-5 times	123	108.30
	6-10 times	42	113.30
	11 times or more	30	127.57
Select seating	1 time	33	128.15
	2-5 times	123	110.99
	6-10 times	42	98.24
	11 times or more	30	136.63
Priority luggage return	1 time	33	120.08
	2-5 times	123	111.04
	6-10 times	42	95.48
	11 times or more	30	149.17
Book a car or hotel when booking tickets	1 time	33	137.52
	2-5 times	123	108.01
	6-10 times	42	112.74
	11 times or more	30	118.25
Service robots	1 time	33	111.24
	2-5 times	123	111.14
	6-10 times	42	124.15
	11 times or more	30	118.35
Receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp)	1 time	33	109.20
	2-5 times	123	108.53
	6-10 times	42	110.27
	11 times or more	30	150.72
Check-in via biometrics (facial recognition, fingerprints)	1 time	33	114.02
	2-5 times	123	111.87
	6-10 times	42	111.75
	11 times or more	30	129.68

N = 228

Test Statistics[a,b]

F3 - On a scale from 1 = "less attractive" to 6 = "more attractive", which services and qualities do you think make an airline more attractive over other airlines, if it would improve/invest in those areas?	Chi-Square	df	Asymp. Sig.
Price	0.886	3	.829
Safety & Security	0.912	3	.822
On-time performance & punctuality	1.140	3	.768
Risk handling	1.377	3	.711
Fast/priority boarding	1.277	3	.735
Fast disembarking	1.262	3	.738
Image & Reputation	4.999	3	.172
Awareness (well-known airline)	6.143	3	.105
Credibility (trust)	1.830	3	.608
Marketing	1.681	3	.641
Destination offers	1.417	3	.702
Personal offers (special offers for you)	2.164	3	.539
Helpfulness (by crew)	0.458	3	.928
Friendliness (by crew)	1.995	3	.573
Cultural etiquettes (by crew)	0.360	3	.948
Languages (spoken by crew)	6.639	3	.084
Flight schedules & convenience	4.160	3	.245
Seat comfort & leg room	6.047	3	.109
Modern equipment (new airplanes, new technology)	1.929	3	.587
In-flight entertainment (screen, newspapers)	4.295	3	.231
Frequent flyer program	18.923	3	.000
Online check-in via app or website	8.043	3	.045
Meals	7.121	3	.068
Beverages	5.572	3	.134
Amenities (headset, sleeping mask)	3.027	3	.388
Sustainability (extra options to reduce CO2 footprint)	2.451	3	.484
Service for disabilities (wheelchair, service dogs)	1.490	3	.685
Service for minors (guided boarding & disembarking)	3.700	3	.296
Select seating	8.842	3	.031
Priority luggage return	13.028	3	.005
Book a car or hotel when booking tickets	5.532	3	.137
Service robots	1.464	3	.691
Receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp)	10.792	3	.013
Check-in via biometrics (facial recognition, fingerprints)	1.945	3	.584

a. Kruskal Wallis Test

b. Grouping Variable: D1 - How many flights have you taken in total in the last 24 months? Please see round trips as one flight.

Ranks

F6 - This is the final question with the following list. We're almost there. On your previous trip, how satisfied were you with the following items, on a scale from 1 = "very dissatisfied" to 6 = "very satisfied"?		N	Mean Rank
Price	1 time	33	102.36
	2-5 times	118	107.27
	6-10 times	40	127.51
	11 times or more	27	101.30
Safety & Security	1 time	33	94.88
	2-5 times	123	117.28
	6-10 times	42	116.96
	11 times or more	28	113.64
On-time performance & punctuality	1 time	33	97.24
	2-5 times	123	119.41
	6-10 times	42	108.01
	11 times or more	29	118.78
Risk handling	1 time	31	84.47
	2-5 times	95	98.79
	6-10 times	38	94.70
	11 times or more	23	85.89
Fast/priority boarding	1 time	30	87.52
	2-5 times	110	102.36
	6-10 times	38	110.91
	11 times or more	25	104.26
Fast disembarking	1 time	31	96.18
	2-5 times	115	107.92
	6-10 times	42	114.79
	11 times or more	27	111.37
Image & Reputation	1 time	31	99.92
	2-5 times	121	111.87
	6-10 times	41	110.84
	11 times or more	29	123.26
Awareness (well-known airline)	1 time	31	95.69
	2-5 times	119	110.72
	6-10 times	41	107.45
	11 times or more	27	123.09
Credibility (trust)	1 time	32	91.92
	2-5 times	117	110.53
	6-10 times	40	108.88
	11 times or more	29	125.59
Word-of-mouth (by relatives, friends)	1 time	26	83.50
	2-5 times	82	84.10
	6-10 times	37	86.26
	11 times or more	26	94.12
Marketing	1 time	25	92.18
	2-5 times	95	93.22
	6-10 times	34	92.91
	11 times or more	28	83.36
Destination offers	1 time	31	94.76
	2-5 times	113	102.15
	6-10 times	33	99.89
	11 times or more	29	122.19
Personal offers (special offers for you)	1 time	20	63.30
	2-5 times	82	79.15
	6-10 times	28	75.38

	11 times or more	20	72.93
National airline	1 time	21	70.57
	2-5 times	88	79.01
	6-10 times	31	81.44
	11 times or more	19	92.66
Helpfulness (by crew)	1 time	32	109.86
	2-5 times	121	111.87
	6-10 times	41	110.79
	11 times or more	30	120.20
Friendliness (by crew)	1 time	33	112.79
	2-5 times	123	111.98
	6-10 times	42	111.99
	11 times or more	30	130.22
Cultural etiquettes (by crew)	1 time	29	95.07
	2-5 times	108	99.92
	6-10 times	35	107.01
	11 times or more	28	100.21
Languages (spoken by crew)	1 time	30	106.98
	2-5 times	115	103.91
	6-10 times	39	107.63
	11 times or more	29	118.41
Flight schedules & convenience	1 time	32	98.14
	2-5 times	120	109.02
	6-10 times	40	114.55
	11 times or more	29	128.48
Seat comfort & leg room	1 time	33	104.48
	2-5 times	121	111.67
	6-10 times	42	114.36
	11 times or more	30	129.60
Modern equipment (new airplanes, new technology)	1 time	32	101.19
	2-5 times	116	110.86
	6-10 times	41	104.88
	11 times or more	29	119.76
In-flight entertainment (screen, newspapers)	1 time	29	110.09
	2-5 times	109	101.83
	6-10 times	36	94.00
	11 times or more	27	97.20
Frequent flyer program	1 time	18	59.69
	2-5 times	61	69.63
	6-10 times	26	53.90
	11 times or more	25	71.66
Online check-in via app or website	1 time	26	81.46
	2-5 times	101	97.86
	6-10 times	39	91.32
	11 times or more	29	122.31
Meals	1 time	20	85.80
	2-5 times	105	93.51
	6-10 times	36	93.21
	11 times or more	25	100.04
Beverages	1 time	30	94.57
	2-5 times	116	109.75
	6-10 times	39	100.59
	11 times or more	27	114.35
Amenities (headset, sleeping mask)	1 time	19	73.97
	2-5 times	70	76.07

	6-10 times	30	58.58
	11 times or more	21	65.81
Sustainability (extra options to reduce C02 footprint)	1 time	16	55.41
	2-5 times	73	72.24
	6-10 times	26	56.85
	11 times or more	21	79.90
Service for disabilities (wheelchair, service dogs)	1 time	11	35.68
	2-5 times	39	45.62
	6-10 times	18	35.75
	11 times or more	14	42.00
Service for minors (guided boarding & disembarking)	1 time	10	28.80
	2-5 times	42	47.43
	6-10 times	18	40.47
	11 times or more	12	32.88
Select seating	1 time	30	98.32
	2-5 times	106	107.00
	6-10 times	38	94.92
	11 times or more	29	96.83
Priority luggage return	1 time	14	35.82
	2-5 times	53	62.20
	6-10 times	24	48.06
	11 times or more	19	60.71
Book a car or hotel when booking tickets	1 time	14	33.25
	2-5 times	35	42.80
	6-10 times	14	37.39
	11 times or more	11	26.18
Service robots	1 time	9	24.39
	2-5 times	29	34.09
	6-10 times	14	29.75
	11 times or more	10	32.85
Receiving flight info & ticket via chatbots)	1 time	9	31.00
	2-5 times	49	46.66
	6-10 times	17	51.85
	11 times or more	18	51.33
Check-in via biometrics (facial recognition)	1 time	11	32.09
	2-5 times	35	34.83
	6-10 times	13	35.54
	11 times or more	10	38.10

N differs per variable

Test Statistics[a,b]

F6 - This is the final question with the following list. We're almost there. On your previous trip, how satisfied were you with the following items, on a scale from 1 = "very dissatisfied" to 6 = "very satisfied"?	Chi-Square	df	Asymp. Sig.
Price	4.712	3	.194
Safety & Security	3.957	3	.266
On-time performance & punctuality	3.906	3	.272
Risk handling	2.534	3	.469
Fast/priority boarding	2.917	3	.405
Fast disembarking	1.814	3	.612
Image & Reputation	2.164	3	.539
Awareness (well-known airline)	3.134	3	.371
Credibility (trust)	4.870	3	.182
Word-of-mouth (by relatives, friends)	0.959	3	.811
Marketing	.860	3	.835
Destination offers	4.175	3	.243
Personal offers (special offers for you)	2.335	3	.506
National airline	2.544	3	.467
Helpfulness (by crew)	0.571	3	.903
Friendliness (by crew)	2.217	3	.529
Cultural etiquettes (by crew)	0.771	3	.856
Languages (spoken by crew)	1.454	3	.693
Flight schedules & convenience	4.008	3	.261
Seat comfort & leg room	2.700	3	.440
Modern equipment (new airplanes, new technology)	1.680	3	.641
In-flight entertainment (screen, newspapers)	1.414	3	.702
Frequent flyer program	4.463	3	.216
Online check-in via app or website	9.182	3	.027
Meals	.812	3	.847
Beverages	2.396	3	.494
Amenities (headset, sleeping mask)	4.483	3	.214
Sustainability (extra options to reduce C02 footprint)	6.844	3	.077
Service for disabilities (wheelchair, service dogs)	3.101	3	.376
Service for minors (guided boarding & disembarking)	7.523	3	.057
Select seating	1.755	3	.625
Priority luggage return	9.935	3	.019
Book a car or hotel when booking tickets	6.122	3	.106
Service robots	2.320	3	.509
Receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp)	4.394	3	.222
Check-in via biometrics (facial recognition)	0.501	3	.919

a. Kruskal Wallis Test

b. Grouping Variable: D1 - How many flights have you taken in total in the last 24 months? Please see round trips as one flight.

Appendix I

Group Statistics

F6 - This is the final question with the following list. We're almost there. On your previous trip, how satisfied were you with the following items, on a scale from 1 = "very dissatisfied" to 6 = "very satisfied"?		N	Mean	Std. Deviation	Std. Error Mean
Price	Long haul flight	60	4.62	1.151	.149
	Short haul flight	158	4.99	1.034	.082
Safety & Security	Long haul flight	65	5.32	.752	.093
	Short haul flight	161	5.40	.785	.062
On-time performance & punctuality	Long haul flight	65	4.80	1.449	.180
	Short haul flight	162	4.83	1.473	.116
Risk handling	Long haul flight	55	5.02	1.147	.155
	Short haul flight	132	5.08	1.053	.092
Fast/priority boarding	Long haul flight	57	4.60	1.348	.179
	Short haul flight	146	4.51	1.386	.115
Fast disembarking	Long haul flight	62	4.53	1.211	.154
	Short haul flight	153	4.48	1.225	.099
Image & Reputation	Long haul flight	63	4.86	1.105	.139
	Short haul flight	159	4.75	1.123	.089
Awareness (well-known airline)	Long haul flight	62	5.15	0.973	.124
	Short haul flight	156	4.87	1.100	.088
Credibility (trust)	Long haul flight	62	4.95	1.179	.150
	Short haul flight	156	4.93	.997	.080
Word-of-mouth (by relatives, friends)	Long haul flight	55	4.80	1.112	.150
	Short haul flight	116	4.60	1.179	.109
Marketing	Long haul flight	55	4.18	1.203	.162
	Short haul flight	127	4.25	1.221	.108
Destination offers	Long haul flight	59	4.97	1.245	.162
	Short haul flight	147	5.00	1.153	.095
Personal offers (special offers for you)	Long haul flight	48	4.10	1.491	.215
	Short haul flight	102	3.68	1.429	.142
National airline	Long haul flight	47	4.68	1.385	.202
	Short haul flight	112	4.47	1.414	.134
Helpfulness (by crew)	Long haul flight	64	4.95	1.105	.138
	Short haul flight	160	4.94	1.056	.084
Friendliness (by crew)	Long haul flight	65	5.05	.891	.111
	Short haul flight	163	5.05	1.029	.081
Cultural etiquettes (by crew)	Long haul flight	60	4.82	1.142	.147
	Short haul flight	140	4.76	1.223	.103
Languages (spoken by crew)	Long haul flight	62	4.82	1.167	.148
	Short haul flight	151	5.02	1.283	.104
Flight schedules & convenience	Long haul flight	62	4.63	1.394	.177
	Short haul flight	159	4.75	1.291	.102
Seat comfort & leg room	Long haul flight	65	4.55	1.160	.144
	Short haul flight	161	4.09	1.336	.105
Modern equipment (new airplanes, new technology)	Long haul flight	64	4.64	1.361	.170
	Short haul flight	154	3.92	1.346	.108
In-flight entertainment (screen, newspapers)	Long haul flight	65	4.55	1.275	.158
	Short haul flight	136	3.40	1.561	.134
Frequent flyer program	Long haul flight	44	4.39	1.385	.209
	Short haul flight	86	3.66	1.492	.161
Online check-in via app or website	Long haul flight	54	4.91	1.051	.143
	Short haul flight	141	4.98	1.333	.112
Meals	Long haul flight	64	4.63	1.202	.150
	Short haul flight	122	3.47	1.607	.145
Beverages	Long haul flight	64	4.88	1.106	.138

	Short haul flight	148	4.14	1.582	.130
Amenities (headset, sleeping mask)	Long haul flight	60	4.45	1.294	.167
	Short haul flight	80	3.23	1.630	.182
Sustainability (extra options to reduce C02 footprint)	Long haul flight	40	4.20	1.224	.193
	Short haul flight	96	3.26	1.453	.148
Service for disabilities (wheelchair, service dogs)	Long haul flight	28	4.32	0.863	.163
	Short haul flight	54	4.39	1.379	.188
Service for minors (guided boarding & disembarking)	Long haul flight	28	4.36	1.193	.225
	Short haul flight	54	4.06	1.433	.195
Select seating	Long haul flight	59	4.83	1.101	.143
	Short haul flight	144	4.24	1.519	.127
Priority luggage return	Long haul flight	41	3.90	1.463	.228
	Short haul flight	69	3.74	1.521	.183
Book a car or hotel when booking tickets	Long haul flight	26	3.85	1.347	.264
	Short haul flight	48	4.04	1.220	.176
Service robots	Long haul flight	23	3.65	1.335	.278
	Short haul flight	39	3.69	1.360	.218
Receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp)	Long haul flight	32	4.34	1.310	.232
	Short haul flight	61	4.11	1.518	.194
Check-in via biometrics (facial recognition, fingerprints)	Long haul flight	27	4.33	1.441	.277
	Short haul flight	42	3.83	1.529	.236

N differs per variable

Independent Samples Test

F6 - This is the final question with the following list. We're almost there. On your previous trip, how satisfied were you with the following items, on a scale from 1 = "very dissatisfied" to 6 = "very satisfied"?		Levene's Test for Equality of Variances		t-test for Equality of Means						
						Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
		F	Sig.	t	df				Lower	Upper
Price	Equal variances assumed	2.796	.096	-2.290	216	.023	-.371	.162	-.690	-.052
	Equal variances not assumed			-2.182	97.289	.032	-.371	.170	-.708	-.034
Safety & Security	Equal variances assumed	.046	.831	-.653	224	.514	-.074	.114	-.299	.150
	Equal variances not assumed			-.665	123.105	.507	-.074	.112	-.296	.147
On-time performance & punctuality	Equal variances assumed	.059	.809	-.126	225	.900	-.027	.215	-.451	.397
	Equal variances not assumed			-.127	119.847	.899	-.027	.214	-.450	.396
Risk handling	Equal variances assumed	.161	.688	-.332	185	.740	-.058	.174	-.400	.285
	Equal variances not assumed			-.320	93.848	.749	-.058	.180	-.414	.299
Fast/priority boarding	Equal variances assumed	.057	.812	.385	201	.700	.083	.215	-.341	.506
	Equal variances not assumed			.390	104.872	.697	.083	.212	-.338	.504
Fast disembarking	Equal variances assumed	.046	.831	.300	213	.765	.055	.184	-.307	.418
	Equal variances not assumed			.301	114.226	.764	.055	.183	-.307	.417
Image & Reputation	Equal variances assumed	1.407	.237	.615	220	.539	.102	.166	-.226	.431
	Equal variances not assumed			.620	115.576	.537	.102	.165	-.225	.430
Awareness (well-known airline)	Equal variances assumed	1.476	.226	1.709	216	.089	.273	.160	-.042	.589
	Equal variances not assumed			1.802	125.947	.074	.273	.152	-.027	.574
Credibility (trust)	Equal variances assumed	.737	.391	.140	216	.889	.022	.158	-.289	.333
	Equal variances not assumed			.130	97.510	.897	.022	.170	-.315	.359
Word-of-mouth (by relatives, friends)	Equal variances assumed	.894	.346	1.037	169	.301	.197	.190	-.178	.571
	Equal variances not assumed			1.059	111.916	.292	.197	.186	-.171	.564
Marketing	Equal variances assumed	.261	.610	-.357	180	.721	-.070	.196	-.457	.317
	Equal variances not assumed			-.360	104.057	.720	-.070	.195	-.457	.317
Destination offers	Equal variances assumed	.457	.500	-.186	204	.852	-.034	.182	-.392	.325
	Equal variances not assumed			-.180	100.057	.857	-.034	.188	-.407	.339
Personal offers (special offers for you)	Equal variances assumed	.000	.991	1.686	148	.094	.428	.254	-.074	.929
	Equal variances not assumed			1.661	88.719	.100	.428	.258	-.084	.939
National airline	Equal variances assumed	.372	.543	.850	157	.397	.208	.244	-.275	.690
	Equal variances not assumed			.857	88.069	.394	.208	.242	-.274	.689
Helpfulness (by crew)	Equal variances assumed	.260	.610	.099	222	.921	.016	.158	-.296	.328
	Equal variances not assumed			.097	111.599	.923	.016	.161	-.304	.335
Friendliness (by crew)	Equal variances assumed	.190	.664	-.020	226	.984	-.003	.146	-.290	.284
	Equal variances not assumed			-.021	135.046	.983	-.003	.137	-.274	.268
Cultural etiquettes (by crew)	Equal variances assumed	.246	.620	.322	198	.748	.060	.185	-.305	.424
	Equal variances not assumed			.331	118.974	.742	.060	.180	-.297	.416
Languages (spoken by crew)	Equal variances assumed	.009	.923	-1.046	211	.297	-.197	.189	-.569	.175
	Equal variances not assumed			-1.088	124.162	.279	-.197	.181	-.556	.162
Flight schedules & convenience	Equal variances assumed	.141	.708	-.636	219	.526	-.126	.198	-.515	.264
	Equal variances not assumed			-.615	104.170	.540	-.126	.204	-.531	.280
Seat comfort & leg room	Equal variances assumed	.778	.379	2.434	224	.016	.461	.189	.088	.834
	Equal variances not assumed			2.584	135.422	.011	.461	.178	.108	.813
Modern equip-	Equal variances assumed	.891	.346	3.578	216	.000	.719	.201	.323	1.114

ment (new airplanes, new technology)	Equal variances not assumed			3.561	116.645	.001	.719	.202	.319	1.118
In-flight entertainment (screen, newspapers)	Equal variances assumed	6.236	.013	5.169	199	.000	1.149	.222	.711	1.588
	Equal variances not assumed			5.548	151.594	.000	1.149	.207	.740	1.559
Frequent flyer program	Equal variances assumed	.679	.411	2.680	128	.008	.724	.270	.189	1.258
	Equal variances not assumed			2.746	92.717	.007	.724	.264	.200	1.247
Online check-in via app or website	Equal variances assumed	.066	.797	-.353	193	.724	-.071	.202	-.470	.327
	Equal variances not assumed			-.392	121.079	.696	-.071	.182	-.431	.289
Meals	Equal variances assumed	10.730	.001	5.066	184	.000	1.158	.229	.707	1.609
	Equal variances not assumed			5.537	162.253	.000	1.158	.209	.745	1.571
Beverages	Equal variances assumed	10.344	.002	3.366	210	.001	.733	.218	.304	1.162
	Equal variances not assumed			3.863	167.660	.000	.733	.190	.358	1.108
Amenities (headset, sleeping mask)	Equal variances assumed	4.750	.031	4.795	138	.000	1.225	.255	.720	1.730
	Equal variances not assumed			4.954	137.522	.000	1.225	.247	.736	1.714
Sustainability (extra options to reduce C02 footprint)	Equal variances assumed	3.753	.055	3.592	134	.000	.940	.262	.422	1.457
	Equal variances not assumed			3.855	86.068	.000	.940	.244	.455	1.424
Service for disabilities (wheelchair, service dogs)	Equal variances assumed	5.695	.019	-.236	80	.814	-.067	.286	-.637	.502
	Equal variances not assumed			-.271	77.041	.787	-.067	.249	-.563	.428
Service for minors (guided boarding & disembarking)	Equal variances assumed	.782	.379	.955	80	.343	.302	.316	-.327	.930
	Equal variances not assumed			1.012	64.203	.315	.302	.298	-.294	.897
Select seating	Equal variances assumed	9.242	.003	2.725	201	.007	.594	.218	.164	1.025
	Equal variances not assumed			3.108	147.392	.002	.594	.191	.216	.972
Priority luggage return	Equal variances assumed	.164	.687	.552	108	.582	.163	.296	-.423	.749
	Equal variances not assumed			.558	86.815	.578	.163	.293	-.419	.745
Book a car or hotel when booking tickets	Equal variances assumed	.527	.470	-.634	72	.528	-.196	.308	-.810	.419
	Equal variances not assumed			-.616	47.175	.541	-.196	.318	-.834	.443
Service robots	Equal variances assumed	.008	.930	-.113	60	.910	-.040	.355	-.751	.670
	Equal variances not assumed			-.114	46.984	.910	-.040	.353	-.751	.671
Receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp)	Equal variances assumed	.941	.335	.723	91	.471	.229	.317	-.400	.858
	Equal variances not assumed			.757	71.654	.451	.229	.302	-.374	.832
Check-in via biometrics (facial recognition, fingerprints)	Equal variances assumed	.048	.827	1.355	67	.180	.500	.369	-0.236	1.236
	Equal variances not assumed			1.373	57.984	.175	.500	.364	-0.229	1.229

Appendix J

Ranks

F1 - On a scale from 1 = "not at all important" to 6 = "very important", how important are the following items for you when it comes to choosing an airline?		N	Mean Rank
Price	Non Innovators	70	108.31
	Conservatives	49	113.12
	Tryouts	52	114.85
	Heavy Innovators	57	122.97
Safety & Security	Non Innovators	70	106.50
	Conservatives	49	124.16
	Tryouts	52	113.16
	Heavy Innovators	57	117.24
On-time performance & punctuality	Non Innovators	70	107.98
	Conservatives	49	116.81
	Tryouts	52	108.62
	Heavy Innovators	57	125.89
Past experience	Non Innovators	70	105.41
	Conservatives	49	109.49
	Tryouts	52	110.45
	Heavy Innovators	57	133.67
Risk handling	Non Innovators	70	111.79
	Conservatives	49	119.53
	Tryouts	52	107.08
	Heavy Innovators	57	120.28
Fast/priority boarding	Non Innovators	70	106.39
	Conservatives	49	112.61
	Tryouts	52	108.02
	Heavy Innovators	57	132.00
Fast disembarking	Non Innovators	70	108.94
	Conservatives	49	113.50
	Tryouts	52	105.26
	Heavy Innovators	57	130.62
Image & Reputation	Non Innovators	70	111.26
	Conservatives	49	116.43
	Tryouts	52	96.41
	Heavy Innovators	57	133.32
Awareness (well-known airline)	Non Innovators	70	110.12
	Conservatives	49	95.37
	Tryouts	52	114.70
	Heavy Innovators	57	136.14
Credibility (trust)	Non Innovators	70	109.91
	Conservatives	49	108.11
	Tryouts	52	117.71
	Heavy Innovators	57	122.69
Word-of-mouth (by relatives, friends)	Non Innovators	70	115.09
	Conservatives	49	91.70
	Tryouts	52	109.92
	Heavy Innovators	57	137.54
Marketing	Non Innovators	70	111.08
	Conservatives	49	108.44
	Tryouts	52	101.65
	Heavy Innovators	57	135.63
Destination offers	Non Innovators	70	110.20
	Conservatives	49	112.08

	Tryouts	52	108.60
	Heavy Innovators	57	127.25
Personal offers (special offers for you)	Non Innovators	70	106.86
	Conservatives	49	108.61
	Tryouts	52	103.96
	Heavy Innovators	57	138.56
National airline	Non Innovators	70	116.34
	Conservatives	49	109.69
	Tryouts	52	112.45
	Heavy Innovators	57	118.24
Helpfulness (by crew)	Non Innovators	70	112.06
	Conservatives	49	106.46
	Tryouts	52	104.32
	Heavy Innovators	57	133.70
Friendliness (by crew)	Non Innovators	70	109.96
	Conservatives	49	101.90
	Tryouts	52	103.83
	Heavy Innovators	57	140.64
Cultural etiquettes (by crew)	Non Innovators	70	99.42
	Conservatives	49	108.69
	Tryouts	52	105.85
	Heavy Innovators	57	145.90
Languages (spoken by crew)	Non Innovators	70	110.25
	Conservatives	49	108.42
	Tryouts	52	104.63
	Heavy Innovators	57	133.96
Flight schedules & convenience	Non Innovators	70	108.30
	Conservatives	49	111.12
	Tryouts	52	113.32
	Heavy Innovators	57	126.10
Seat comfort & leg room	Non Innovators	70	115.65
	Conservatives	49	115.86
	Tryouts	52	100.90
	Heavy Innovators	57	124.32
Modern equipment (new airplanes, new technology)	Non Innovators	70	107.86
	Conservatives	49	118.38
	Tryouts	52	103.73
	Heavy Innovators	57	129.14
In-flight entertainment (screen, newspapers)	Non Innovators	70	111.64
	Conservatives	49	109.02
	Tryouts	52	106.81
	Heavy Innovators	57	129.75
Frequent flyer program	Non Innovators	70	106.56
	Conservatives	49	108.16
	Tryouts	52	106.02
	Heavy Innovators	57	137.44
Online check-in via app or website	Non Innovators	70	103.46
	Conservatives	49	114.79
	Tryouts	52	103.30
	Heavy Innovators	57	138.03
Meals	Non Innovators	70	115.56
	Conservatives	49	112.04
	Tryouts	52	97.40
	Heavy Innovators	57	130.91
Beverages	Non Innovators	70	116.78

	Conservatives	49	108.21
	Tryouts	52	101.37
	Heavy Innovators	57	129.09
Amenities (headset, sleeping mask)	Non Innovators	70	109.66
	Conservatives	49	111.73
	Tryouts	52	106.77
	Heavy Innovators	57	129.88
Sustainability (extra options to reduce CO2 footprint)	Non Innovators	70	128.09
	Conservatives	49	112.28
	Tryouts	52	100.06
	Heavy Innovators	57	112.89
Service for disabilities (wheelchair, service dogs)	Non Innovators	70	123.16
	Conservatives	49	118.65
	Tryouts	52	101.15
	Heavy Innovators	57	112.47
Service for minors (guided boarding & disembarking)	Non Innovators	70	122.55
	Conservatives	49	119.81
	Tryouts	52	106.47
	Heavy Innovators	57	107.38
Select seating	Non Innovators	70	109.99
	Conservatives	49	111.66
	Tryouts	52	109.20
	Heavy Innovators	57	127.32
Priority luggage return	Non Innovators	70	113.27
	Conservatives	49	106.05
	Tryouts	52	102.46
	Heavy Innovators	57	134.25
Book a car or hotel when booking tickets	Non Innovators	70	113.31
	Conservatives	49	115.65
	Tryouts	52	100.64
	Heavy Innovators	57	127.61
Service robots	Non Innovators	70	115.64
	Conservatives	49	107.98
	Tryouts	52	106.82
	Heavy Innovators	57	125.72
Receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp)	Non Innovators	70	106.71
	Conservatives	49	106.65
	Tryouts	52	119.77
	Heavy Innovators	57	126.01
Check-in via biometrics (facial recognition, fingerprints)	Non Innovators	70	104.71
	Conservatives	49	104.57
	Tryouts	52	118.51
	Heavy Innovators	57	131.39

N = 228

Test Statistics[a,b]

F1 - On a scale from 1 = "not at all important" to 6 = "very important", how important are the following items for you when it comes to choosing an airline?	Chi-Square	df	Asymp. Sig.
Price	1.858	3	.602
Safety & Security	3.495	3	.321
On-time performance & punctuality	3.236	3	.357
Past experience	7.398	3	.060
Risk handling	1.702	3	.637
Fast/priority boarding	5.844	3	.119
Fast disembarking	5.186	3	.159
Image & Reputation	9.336	3	.025
Awareness (well-known airline)	11.261	3	.010
Credibility (trust)	2.150	3	.542
Word-of-mouth (by relatives, friends)	13.852	3	.003
Marketing	8.922	3	.030
Destination offers	3.336	3	.343
Personal offers (special offers for you)	10.661	3	.014
National airline	0.566	3	.904
Helpfulness (by crew)	7.510	3	.057
Friendliness (by crew)	13.882	3	.003
Cultural etiquettes (by crew)	18.515	3	.000
Languages (spoken by crew)	7.094	3	.069
Flight schedules & convenience	2.818	3	.421
Seat comfort & leg room	3.861	3	.277
Modern equipment (new airplanes, new technology)	5.461	3	.141
In-flight entertainment (screen, newspapers)	4.425	3	.219
Frequent flyer program	9.551	3	.023
Online check-in via app or website	11.445	3	.010
Meals	7.443	3	.059
Beverages	5.707	3	.127
Amenities (headset, sleeping mask)	4.435	3	.218
Sustainability (extra options to reduce CO2 footprint)	5.782	3	.123
Service for disabilities (wheelchair, service dogs)	3.693	3	.297
Service for minors (guided boarding & disembarking)	2.891	3	.409
Select seating	3.092	3	.378
Priority luggage return	7.930	3	.047
Book a car or hotel when booking tickets	4.946	3	.176
Service robots	3.102	3	.376
Receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp)	3.915	3	.271
Check-in via biometrics (facial recognition, fingerprints)	6.897	3	.075

a. Kruskal Wallis Test
b. Grouping Variable: Innovator Groups

Ranks

F3 - On a scale from 1 = "less attractive" to 6 = "more attractive", which services and qualities do you think make an airline more attractive over other airlines, if it would improve/invest in those areas?		N	Mean Rank
Price	Non Innovators	70	115.37
	Conservatives	49	108.07
	Tryouts	52	113.88
	Heavy Innovators	57	119.53
Safety & Security	Non Innovators	70	117.29
	Conservatives	49	113.91
	Tryouts	52	98.31
	Heavy Innovators	57	126.35
On-time performance & punctuality	Non Innovators	70	118.01
	Conservatives	49	114.08
	Tryouts	52	100.52
	Heavy Innovators	57	123.30
Risk handling	Non Innovators	70	112.05
	Conservatives	49	120.61
	Tryouts	52	97.32
	Heavy Innovators	57	127.93
Fast/priority boarding	Non Innovators	70	115.15
	Conservatives	49	113.92
	Tryouts	52	100.98
	Heavy Innovators	57	126.54
Fast disembarking	Non Innovators	70	118.71
	Conservatives	49	107.26
	Tryouts	52	100.14
	Heavy Innovators	57	128.66
Image & Reputation	Non Innovators	70	110.51
	Conservatives	49	113.24
	Tryouts	52	104.33
	Heavy Innovators	57	129.75
Awareness (well-known airline)	Non Innovators	70	106.53
	Conservatives	49	110.09
	Tryouts	52	118.54
	Heavy Innovators	57	124.39
Credibility (trust)	Non Innovators	70	107.19
	Conservatives	49	111.26
	Tryouts	52	112.58
	Heavy Innovators	57	128.02
Marketing	Non Innovators	70	112.81
	Conservatives	49	103.12
	Tryouts	52	115.09
	Heavy Innovators	57	125.82
Destination offers	Non Innovators	70	116.05
	Conservatives	49	117.61
	Tryouts	52	104.38
	Heavy Innovators	57	119.16
Personal offers (special offers for you)	Non Innovators	70	106.78
	Conservatives	49	116.91
	Tryouts	52	111.44
	Heavy Innovators	57	124.70
Helpfulness (by crew)	Non Innovators	70	105.12
	Conservatives	49	120.30
	Tryouts	52	112.40

	Heavy Innovators	57	122.95
Friendliness (by crew)	Non Innovators	70	107.26
	Conservatives	49	118.58
	Tryouts	52	108.88
	Heavy Innovators	57	125.00
Cultural etiquettes (by crew)	Non Innovators	70	110.41
	Conservatives	49	107.91
	Tryouts	52	103.73
	Heavy Innovators	57	135.01
Languages (spoken by crew)	Non Innovators	70	114.61
	Conservatives	49	111.23
	Tryouts	52	102.52
	Heavy Innovators	57	128.10
Flight schedules & convenience	Non Innovators	70	114.81
	Conservatives	49	105.85
	Tryouts	52	106.73
	Heavy Innovators	57	128.65
Seat comfort & leg room	Non Innovators	70	116.18
	Conservatives	49	108.72
	Tryouts	52	112.45
	Heavy Innovators	57	119.27
Modern equipment (new airplanes, new technology)	Non Innovators	70	111.54
	Conservatives	49	116.69
	Tryouts	52	104.18
	Heavy Innovators	57	125.66
In-flight entertainment (screen, newspapers)	Non Innovators	70	107.64
	Conservatives	49	112.02
	Tryouts	52	106.32
	Heavy Innovators	57	132.53
Frequent flyer program	Non Innovators	70	115.81
	Conservatives	49	102.57
	Tryouts	52	108.44
	Heavy Innovators	57	128.68
Online check-in via app or website	Non Innovators	70	107.47
	Conservatives	49	113.93
	Tryouts	52	114.22
	Heavy Innovators	57	123.88
Meals	Non Innovators	70	123.94
	Conservatives	49	96.29
	Tryouts	52	108.11
	Heavy Innovators	57	124.39
Beverages	Non Innovators	70	121.53
	Conservatives	49	101.28
	Tryouts	52	111.37
	Heavy Innovators	57	120.10
Amenities (headset, sleeping mask)	Non Innovators	70	117.19
	Conservatives	49	109.43
	Tryouts	52	107.22
	Heavy Innovators	57	122.19
Sustainability (extra options to reduce CO2 footprint)	Non Innovators	70	126.93
	Conservatives	49	109.20
	Tryouts	52	108.98
	Heavy Innovators	57	108.82
Service for disabilities (wheelchair, service dogs)	Non Innovators	70	125.65
	Conservatives	49	108.14

	Tryouts	52	112.57
	Heavy Innovators	57	108.04
Service for minors (guided boarding & disembarking)	Non Innovators	70	120.54
	Conservatives	49	110.91
	Tryouts	52	113.67
	Heavy Innovators	57	110.93
Select seating	Non Innovators	70	117.14
	Conservatives	49	113.89
	Tryouts	52	104.91
	Heavy Innovators	57	120.54
Priority luggage return	Non Innovators	70	119.82
	Conservatives	49	101.64
	Tryouts	52	103.53
	Heavy Innovators	57	129.03
Book a car or hotel when booking tickets	Non Innovators	70	117.89
	Conservatives	49	106.49
	Tryouts	52	103.47
	Heavy Innovators	57	127.28
Service robots	Non Innovators	70	114.38
	Conservatives	49	101.84
	Tryouts	52	109.63
	Heavy Innovators	57	129.98
Receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp)	Non Innovators	70	110.51
	Conservatives	49	99.03
	Tryouts	52	121.91
	Heavy Innovators	57	125.93
Check-in via biometrics (facial recognition, fingerprints)	Non Innovators	70	108.81
	Conservatives	49	100.77
	Tryouts	52	114.27
	Heavy Innovators	57	133.50

N = 228

Test Statistics[a,b]

F3 - On a scale from 1 = "less attractive" to 6 = "more attractive", which services and qualities do you think make an airline more attractive over other airlines, if it would improve/invest in those areas?	Chi-Square	df	Asymp. Sig.
Price	1.064	3	.786
Safety & Security	7.021	3	.071
On-time performance & punctuality	4.556	3	.207
Risk handling	7.412	3	.060
Fast/priority boarding	4.373	3	.224
Fast disembarking	6.353	3	.096
Image & Reputation	4.966	3	.174
Awareness (well-known airline)	2.913	3	.405
Credibility (trust)	3.977	3	.264
Marketing	3.356	3	.340
Destination offers	1.872	3	.599
Personal offers (special offers for you)	2.637	3	.451
Helpfulness (by crew)	3.145	3	.370
Friendliness (by crew)	3.369	3	.338
Cultural etiquettes (by crew)	8.140	3	.043
Languages (spoken by crew)	4.553	3	.208
Flight schedules & convenience	4.905	3	.179
Seat comfort & leg room	0.947	3	.814
Modern equipment (new airplanes, new technology)	3.521	3	.318
In-flight entertainment (screen, newspapers)	6.448	3	.092
Frequent flyer program	4.911	3	.178
Online check-in via app or website	2.121	3	.548
Meals	7.681	3	.053
Beverages	3.718	3	.294
Amenities (headset, sleeping mask)	1.927	3	.588
Sustainability (extra options to reduce CO2 footprint)	3.916	3	.271
Service for disabilities (wheelchair, service dogs)	3.246	3	.355
Service for minors (guided boarding & disembarking)	0.954	3	.812
Select seating	1.944	3	.584
Priority luggage return	6.876	3	.076
Book a car or hotel when booking tickets	4.668	3	.198
Service robots	5.461	3	.141
Receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp)	5.500	3	.139
Check-in via biometrics (facial recognition, fingerprints)	7.709	3	.052

a. Kruskal Wallis Test

b. Grouping Variable: Innovator Groups

Ranks

F6 - This is the final question with the following list. We're almost there. On your previous trip, how satisfied were you with the following items, on a scale from 1 = "very dissatisfied" to 6 = "very satisfied"?		N	Mean Rank
Price	Non Innovators	67	89.92
	Conservatives	48	127.46
	Tryouts	49	109.70
	Heavy Innovators	54	117.65
Safety & Security	Non Innovators	69	102.48
	Conservatives	49	127.23
	Tryouts	51	108.32
	Heavy Innovators	57	119.67
On-time performance & punctuality	Non Innovators	69	105.64
	Conservatives	49	121.73
	Tryouts	52	101.63
	Heavy Innovators	57	128.75
Risk handling	Non Innovators	57	85.91
	Conservatives	40	102.41
	Tryouts	39	88.51
	Heavy Innovators	51	100.64
Fast/priority boarding	Non Innovators	62	91.90
	Conservatives	41	99.46
	Tryouts	47	101.96
	Heavy Innovators	53	115.81
Fast disembarking	Non Innovators	65	100.28
	Conservatives	45	103.33
	Tryouts	51	97.10
	Heavy Innovators	54	131.47
Image & Reputation	Non Innovators	65	104.55
	Conservatives	48	121.38
	Tryouts	52	102.75
	Heavy Innovators	57	119.10
Awareness (well-known airline)	Non Innovators	65	107.22
	Conservatives	46	118.23
	Tryouts	51	96.77
	Heavy Innovators	56	116.57
Credibility (trust)	Non Innovators	65	105.91
	Conservatives	46	121.60
	Tryouts	50	94.52
	Heavy Innovators	57	116.97
Word-of-mouth (by relatives, friends)	Non Innovators	54	84.19
	Conservatives	34	87.54
	Tryouts	36	75.65
	Heavy Innovators	47	94.89
Marketing	Non Innovators	53	80.23
	Conservatives	38	90.97
	Tryouts	41	90.95
	Heavy Innovators	50	104.30
Destination offers	Non Innovators	66	101.87
	Conservatives	44	111.60
	Tryouts	43	99.49
	Heavy Innovators	53	102.06
Personal offers (special offers for you)	Non Innovators	46	76.83
	Conservatives	31	82.02
	Tryouts	33	65.52

	Heavy Innovators	40	77.16
National airline	Non Innovators	49	79.63
	Conservatives	40	78.20
	Tryouts	33	68.94
	Heavy Innovators	37	92.30
Helpfulness (by crew)	Non Innovators	68	103.80
	Conservatives	49	124.96
	Tryouts	51	103.10
	Heavy Innovators	56	120.72
Friendliness (by crew)	Non Innovators	70	106.95
	Conservatives	49	122.20
	Tryouts	52	108.73
	Heavy Innovators	57	122.41
Cultural etiquettes (by crew)	Non Innovators	59	93.25
	Conservatives	41	112.29
	Tryouts	46	80.73
	Heavy Innovators	54	116.31
Languages (spoken by crew)	Non Innovators	69	99.33
	Conservatives	44	114.55
	Tryouts	47	91.96
	Heavy Innovators	53	124.06
Flight schedules & convenience	Non Innovators	69	104.67
	Conservatives	48	116.55
	Tryouts	49	100.94
	Heavy Innovators	55	123.06
Seat comfort & leg room	Non Innovators	69	106.59
	Conservatives	49	126.41
	Tryouts	51	98.34
	Heavy Innovators	57	124.33
Modern equipment (new airplanes, new technology)	Non Innovators	68	101.11
	Conservatives	47	127.45
	Tryouts	49	98.03
	Heavy Innovators	54	114.85
In-flight entertainment (screen, newspapers)	Non Innovators	60	99.46
	Conservatives	42	111.88
	Tryouts	46	92.51
	Heavy Innovators	53	101.49
Frequent flyer program	Non Innovators	40	67.99
	Conservatives	24	67.90
	Tryouts	26	56.79
	Heavy Innovators	40	67.24
Online check-in via app or website	Non Innovators	54	94.70
	Conservatives	43	103.31
	Tryouts	48	92.33
	Heavy Innovators	50	102.43
Meals	Non Innovators	54	87.73
	Conservatives	42	95.90
	Tryouts	41	84.30
	Heavy Innovators	49	105.49
Beverages	Non Innovators	66	104.04
	Conservatives	46	109.95
	Tryouts	47	104.49
	Heavy Innovators	53	108.36
Amenities (headset, sleeping mask)	Non Innovators	39	68.59
	Conservatives	29	76.59

	Tryouts	30	62.33
	Heavy Innovators	42	73.90
Sustainability (extra options to reduce C02 footprint)	Non Innovators	41	66.16
	Conservatives	29	63.98
	Tryouts	31	57.95
	Heavy Innovators	35	84.33
Service for disabilities (wheelchair, service dogs)	Non Innovators	30	41.13
	Conservatives	11	48.59
	Tryouts	17	40.00
	Heavy Innovators	24	39.77
Service for minors (guided boarding & disembarking)	Non Innovators	28	38.04
	Conservatives	13	45.23
	Tryouts	17	42.32
	Heavy Innovators	24	42.94
Select seating	Non Innovators	63	92.84
	Conservatives	43	118.13
	Tryouts	47	103.89
	Heavy Innovators	50	97.89
Priority luggage return	Non Innovators	39	51.58
	Conservatives	16	49.94
	Tryouts	23	52.26
	Heavy Innovators	32	65.39
Book a car or hotel when booking tickets	Non Innovators	27	35.30
	Conservatives	9	39.83
	Tryouts	15	37.13
	Heavy Innovators	23	39.41
Service robots	Non Innovators	24	32.15
	Conservatives	7	27.93
	Tryouts	12	23.54
	Heavy Innovators	19	37.03
Receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp)	Non Innovators	31	42.79
	Conservatives	16	54.22
	Tryouts	21	46.21
	Heavy Innovators	25	48.26
Check-in via biometrics (facial recognition, fingerprints)	Non Innovators	23	32.26
	Conservatives	9	46.06
	Tryouts	15	34.00
	Heavy Innovators	22	34.02

N differs per variable

Test Statistics[a,b]

F6 - This is the final question with the following list. We're almost there. On your previous trip, how satisfied were you with the following items, on a scale from 1 = "very dissatisfied" to 6 = "very satisfied"?	Chi-Square	df	Asymp. Sig.
Price	12.360	3	.006
Safety & Security	6.108	3	.106
On-time performance & punctuality	7.296	3	.063
Risk handling	3.872	3	.276
Fast/priority boarding	5.153	3	.161
Fast disembarking	11.217	3	.011
Image & Reputation	3.983	3	.263
Awareness (well-known airline)	4.153	3	.245
Credibility (trust)	6.104	3	.107
Word-of-mouth (by relatives, friends)	3.456	3	.326
Marketing	5.806	3	.121
Destination offers	1.229	3	.746
Personal offers (special offers for you)	2.668	3	.446
National airline	4.910	3	.179
Helpfulness (by crew)	5.535	3	.137
Friendliness (by crew)	3.162	3	.367
Cultural etiquettes (by crew)	13.058	3	.005
Languages (spoken by crew)	9.697	3	.021
Flight schedules & convenience	4.560	3	.207
Seat comfort & leg room	7.403	3	.060
Modern equipment (new airplanes, new technology)	7.379	3	.061
In-flight entertainment (screen, newspapers)	2.581	3	.461
Frequent flyer program	1.816	3	.611
Online check-in via app or website	1.527	3	.676
Meals	4.511	3	.211
Beverages	0.371	3	.946
Amenities (headset, sleeping mask)	2.331	3	.507
Sustainability (extra options to reduce C02 footprint)	8.897	3	.031
Service for disabilities (wheelchair, service dogs)	1.268	3	.737
Service for minors (guided boarding & disembarking)	1.087	3	.780
Select seating	5.354	3	.148
Priority luggage return	4.602	3	.203
Book a car or hotel when booking tickets	0.616	3	.893
Service robots	4.704	3	.195
Receiving flight info & ticket via chatbots (Facebook Messenger, WhatsApp)	2.070	3	.558
Check-in via biometrics (facial recognition, fingerprints)	3.381	3	.337

a. Kruskal Wallis Test
b. Grouping Variable: Innovator Groups