UNIVERSITY OF AGDER

Analyzing Factors Impacting Students' Choice between Low-Cost and Full-Fare Airlines

Anton Sokolovskyy

Supervisor
Rotem Shneor

This Master's Thesis is carried out as a part of the education at the University of Agder and is therefore approved as a part of this education. However, this does not imply that the University answers for the methods that are used or the conclusions that are drawn.

University of Agder, 2012
Faculty of Economics and Social Sciences
Department of Economics and Business Administration

ABSTRACT

The main aim of the thesis is to investigate which factors impact students' choice of either low-cost or full-fare airline. This is achieved by combining variables adopted from several frameworks used in earlier studies to form a questionnaire. The variables included cover characteristics such as perceived quality of service, price, flight availability and service reliability. In order to measure these characteristics and find out which one of them appeals to students the most a logistic regression analysis was applied. The analysis is based on the data gathered from students at the University of Agder in Kristiansand, Norway. Results show that quality of service is the most important and significant factor influencing students' choice of airline. In addition, a separate analysis was conducted comparing students who are citizens of Norway and those who are citizens of other countries. Results indicate that different factors carry influence among the two groups of respondents. For Norwegian students the influential factors are quality of service, flight availability, and price; for non-Norwegians – quality of service and service reliability. Finally, possible explanations for these differences are suggested.

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INTRODUCTION

Deregulation of airline industry in the United States in 1978 and in Europe in 1990s created conditions that enabled companies with brand new business model successfully enter local air travel markets (GAO 2006). These companies, which later became known as low-cost or no-frills carriers, offered lower fares that did not include additional services and features (e.g. meal service, strict baggage regulations) that usually increase the price (Huse and Evangelho 2007).

Since low-cost airlines offered lower prices compared to their full-fare counterparts, one would expect them to develop rapidly and eventually hold a large part of the market. However, this was not always the case because of severe competition. Full-fare companies managed to adapt to the market changes that were caused by low-cost airline companies by lowering their prices and cutting expenses (GAO 2004). Yet, most full-fare airlines were not willing to abandon extra services and features, and therefore, still could not match the prices offered by their competitors. Finally, these two kinds of carriers found a way to co-exist on the market through providing different level of service at corresponding prices (Alderigh, Cento et al. 2004). As a result, most of them started to concentrate on certain groups of customers. Business travelers who normally prefer more flexibility and comfort have become a main focus for the majority of full-fare carriers (Garfinkel 2008). On the other hand, leisure travelers, who typically are not too concerned about additional services, tend to make their choices based on price levels, therefore becoming target customers for no-frills airlines (Huse and Evangelho 2007).

Previous research that looked into choice of airline in one way or another had a tendency to focus on one of several different aspects: airline choice in particular setup; focusing on global alliance and its benefits (how they affect customers' choice); choice between low-cost and full-fare carriers based on passengers' perceptions.

The objective of this thesis is to determine which factors are the most significant when students choose airlines and see if there are any particular ones that usually lead to a selection of a specific type of air carrier. Within the thesis we look into the choice between low-cost and full-fare airlines by students, who generally are very price sensitive. The motivation for choosing students as our target group is their increasing mobility, which means that every year there are more and more students travelling around the world. There are a lot of different reasons that explain this, for example general globalization tendencies, availability of new study programs in popular languages, student exchange popularity, etc.

Chapter 1 of the thesis contains a review of literature related to consumer behavior in travel industry, and more specifically concentrates on studies that looked into factors influencing customers' choice of various travel products including airlines. The chapter also includes a review of few articles researching students as travel product consumers.

In chapter 2 we outline the research framework defining dependent and independent variables that are going to be used during the analysis.
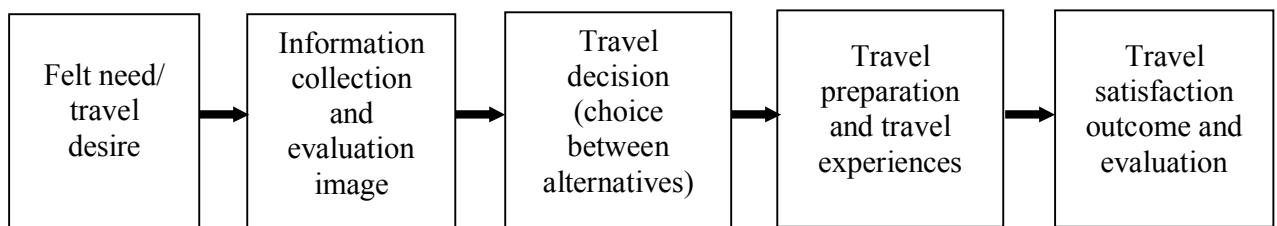
Finally, chapter 3 describes methodology of the research, software used, methods of data gathering and analysis. It also shows findings based on the stage of the analysis, after which we compare our findings with earlier studies, while highlighting similarities and suggesting explanations for differences.

Chapter 1. Consumer Behavior in Travel Industry

Consumer behavior in general, as well as in tourism, includes a decision making process when a potential customer feels the need to travel, chooses where and when to travel keeping in mind certain factors that may or may not affect traveler's final decision, prepares and experiences the process of travelling, and finally evaluates those experiences based on his/her own unique set of expectations (Peter and Olson 2010).

Consumer decision making is a complex process that may involve a choice between two and more alternative products or services. Peter and Olson (2010) view it as a goal-directed, problem-solving process. They suggest a decision making model that includes five stages: problem recognition, the search for alternative solutions, the evaluation of alternatives, purchase and post-purchase use and the re-evaluation of the chosen alternative.

Mathieson and Wall (1982) developed and suggested similar model that is shown in figure 1.1.

Felt need/ travel desire	Information collection and evaluation image	Travel decision (choice between alternatives)	Travel preparation and travel experiences	Travel satisfaction outcome and evaluation

Figure 1.1. Model of travel-buying behavior

Source: Mathieson and Wall (1982) p. 95

This study focuses on the decision stage. More specifically, it focuses on identifying which factors and to what extent influence certain customers when making a decision about buying specific kind of travel product.

1.1. Factors Influencing Choice of Different Travel Products

A number of studies concerning choice of different travel products were examined. This includes two studies analyzing tourism destination choice, one – picking a hotel, and another one – choosing a travel agency. The majority of studies were conducted in Hong Kong, one was conducted in Cyprus. The studies focus on determining the factors that influence choice of certain travel products, e.g., leisure destination, hotel, travel agency, as well as its significance. All studies found that cost-related factors such as price of tourist package, cost of living, value, etc. are among the most important ones for both leisure and business travelers. Quality- and safety-related factors were also found to be of high significance in all selected studies (Chu and Choi 1999; Heung and Chu 2000; Seddighi and Theocharous 2002; Zhang, Qu et al. 2004).

Zhang, Qu et al. (2004) who researched Hong Kong residents' preferences when choosing a leisure travel destination were focusing more on travel destination characteristics. Based on the gathered primary data from the respondents, 12 such characteristics out of 31 were found to be of high importance for potential travelers. The most significant ones include epidemics, safety, disaster, good value for money.

Seddighi and Theocharous (2002) studied tourism destination choice and suggested a model that combines the important characteristics of the tourism product that not only affect the traveler choice, but also form a feeling about the destination in traveler's mind. They suggest cost of living at the destination, price of tourist package, facilities, cost of transportation, quality of promotion & advertising, quality of services, and political instability to be the most important factors that determine choice of destination.

Chu and Choi (1999) examined hotel selection factors in the Hong Kong hotel industry, and compared their significance to leisure and business travelers.

The factors were service quality, business facilities, value, room and front desk, food and recreation, and security. The most important factor for business travelers was found to be room and front desk, while security was found to be the most essential for leisure travelers. In addition, value seemed to be vital for both groups of travelers.

Heung and Chu (2000) identified important factors when selecting a travel agency. 29 factors were suggested, out of which agency reputation, word-of-mouth communication, and staff attitude were selected as vital. Moreover, *"Interactive Agent Quality, Formal Communication, and Pricing factors varied significantly by gender, and the Formal Communication and Pricing factors varied significantly by income level"* (p. 52).

1.2. Factors Influencing Choice of Air Carrier

In general, it is fair to mention that studies involving choice of airline in one way or another tend to be focused on several different aspects: airline choice in particular setup; global alliances and their benefits (how they affect customers' choice); choice between low-cost and full-fare carriers based on passengers' perceptions.

Proussaloglou and Koppelman (1999) researched choice of air carrier, flight, and fare class, concluding that the choice is made based on the tradeoff between carrier market presence, service quality, passenger participation in carrier frequent flyer program, schedule convenience, and fare levels. In one of their earlier researches in 1995 "Air Carrier Demand" they suggested a conceptual framework for carrier choice behavior that is shown in figure 1.2.

CARRIER ATTRIBUTES

TRAVELER ATTRIBUTES

Carrier Market Presence
  Flight Network
  Total Originating Flights

Level of Carrier Service
  Frequency of O-D Service
  Scheduling of Flights

Quality of Carrier Service
  Image / On-time Reliability
  Terminal / On-board Amenities

Carrier Pricing
  Fare Levels by Fare Class
  Seat Allocation Rules

Frequent-Flyer Membership
Perceptions of Carrier Service

Carrier Attractiveness

Carrier Choice

TRIP ATTRIBUTES

Trip Purpose
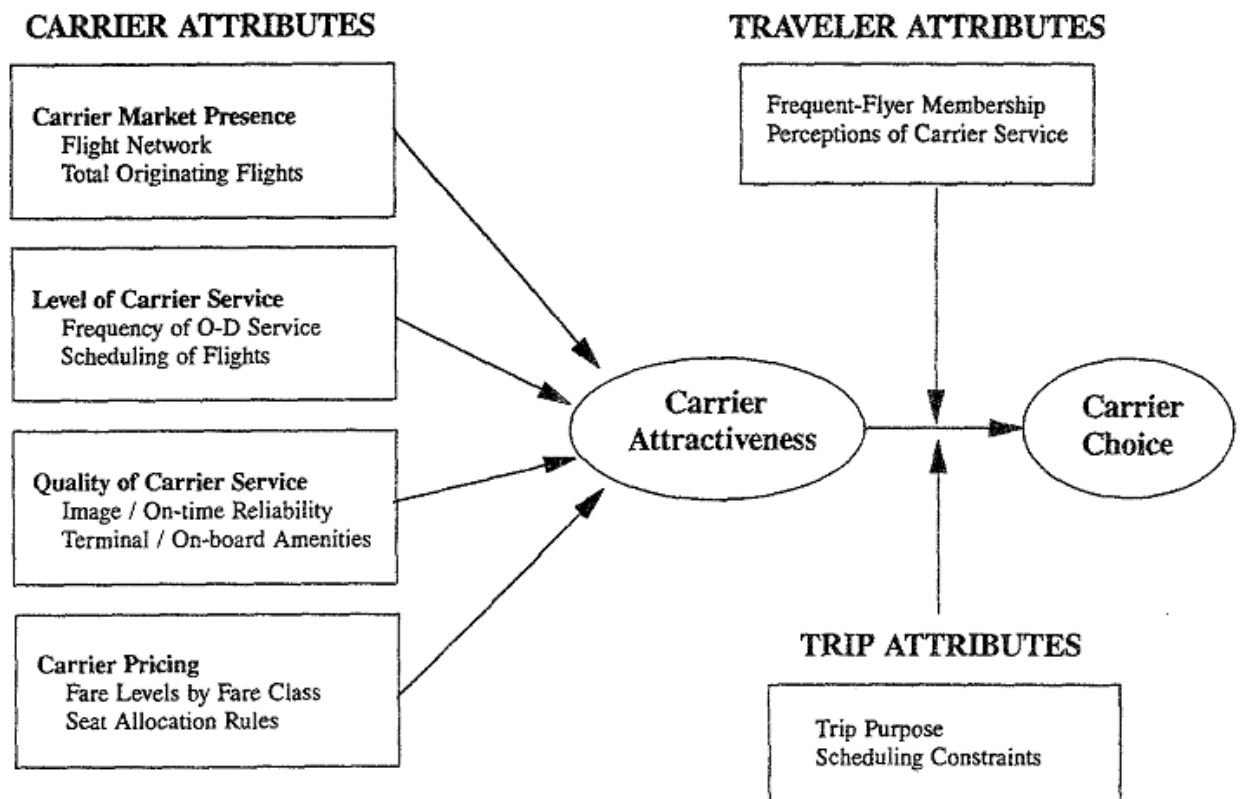Scheduling Constraints

Figure 1.2. A conceptual framework for carrier choice behavior (Proussaloglou and Koppelman 1995)

Most authors that conducted studies involving business travelers found out that in general they are much less price sensitive than leisure travelers (Proussaloglou and Koppelman 1999). The majority of studies found that the most important factors for leisure travelers were price, along with schedule and direct flight availability. Factors like safety (i.e., airline safety record, reputation for safety), frequent flyer program and flight frequency were also considered important by most leisure travelers. In case of business passengers the most significant factors were flexibility (fare and schedule), frequent flyer program, overall service quality, comfort, access to business lounges.

Hess, Adler at al. (2007) and Hess and Polak (2006) who studied choice of airport along with airline also considered factors like access time, in-vehicle access time, walk time to access mode, access cost, and airport reputation when making a decision about an airport.

Few authors who researched choice between low-cost and full-fare carriers indicated that the most influential factors that support the low-cost choice were the price followed by on-time performance, regardless if it was the case of business or leisure travelers. Most authors had a tendency to conclude that travelers selected low-cost option only because of an airfare (O'Connell and Williams 2005; Huse and Evangelho 2007; Ha 2010). Main reasons for selecting full-fare airlines were quality, reliability, connections, schedule, and frequent flyer program (O'Connell and Williams 2005).

Table 1.1.
Literature review summary

Study	Dependent Variable	Sample	Factors/Independent Variables	Main Findings
(Chen, Peng et al. 2008)	Choice of airline	60 students	• Service quality • Price • Student discounts • Baggage allowance • Airline safety record	*"In-flight service quality was highly important, particularly the attitude and professionalism of cabin crew, the quality of food and the in-flight entertainment"* *"Special offers and loyalty programs targeted at particular market segments were viewed very favorably"* *"Respondents were very aware of each airline's safety record and regarded it as a key factor"*
(Proussaloglou and Koppelman 1995)	Choice of air carrier	2,006 households	• Market presence • Level of service • Quality of service • Frequent flyer program • Traveler's perceptions (on-time reliability, flight schedule, airfares)	*"The estimation results indicate that the utility of a carrier and the probability of carrier choice increase with a better carrier level of service."* *"Frequent-flyer program membership and most active membership are both positive and highly significant, reflecting the increase in carrier utility attributable to travelers who are affiliated with a carrier's program."* *"The coefficients for each of the ratings [Traveler's perception group] are positive and highly significant."*
(Proussaloglou and Koppelman 1999)	Choice of carrier, flight and fare class	Mix of business & leisure travelers	• Carrier constants to control for carrier preferences not otherwise explained by the model • Fare class constants to capture travel restrictions and advance	*"Carrier market presence has a strong positive effect on travelers' choice."* *"The positive impact of the quality of service index indicates the importance of travelers' perceptions of a carrier's service quality on carrier choice."*

			purchase requirements • A measure of a carrier's market presence • The quality of carrier service as reflected in travelers' ratings • Travelers' participation in carriers' frequent-flyer programs • Fare levels • Carrier flight schedules	*"The loyalty-inducing effects of frequent-flyer programs are reflected in positive and significant coefficients for membership in a frequent-flyer program, active participation in a carrier's program for low-frequency travelers, and for more frequent air travelers."* *"The fare sensitivity of travelers is reflected in the negative, significant coefficients for airfares. As expected, travelers on a leisure trip exhibit a much higher sensitivity to price than business travelers."* *"The negative, significant coefficients for schedule delays before or after their preferred departure time indicate travelers' reluctance to deviate from their preferred departure time."*
(Uncles and Goh 2002)	The importance of global alliance benefits in determining airline choice by business travelers	221 business travelers	• Reputation for safety • Reliable baggage handling • Most direct routes and fewer stopovers • Staff friendliness and helpfulness • Modern aircraft fleet • **Seamless travel as promised by global alliances** • Convenient departure and arrival times • Attentive service • Flexible schedules • Quick check-in	*"Sizeable minority is unsure of the benefits or holds at least some misconceptions."* *"Relative to other benefits, alliance benefits are not seen as particularly important."*

| | | | Good in-flight food Cheapest available fare Large number of FFP points **Extensive network served by global alliance** **Unlimited lounge access on global alliance network** Good executive lounge facilities Fully reclinable seats **Airline part of my preferred global alliance** Onboard phone/fax Onboard e-mail | |
| (Ha 2010) | Choice of no-frills airline using different choice models | 120 postgraduate students | Expected loyalty program On time service schedule Safety Price Value for money Trust of service Comfort Past service experience Kindness of service employees Advertising Word of mouth communication Brand reputation Refund Availability | *"For individuals the most significant service attribute was price, which was important for 105 out of 120 subjects, while kindness of service staff was considered to be important the least frequently."*
 No delay, Value for money and Availability were found to be important factors for most subjects. |

(Hess, Adler et al. 2007)	Choice of airline and airport using stated preference survey data	1190 business travelers 1840 leisure travelers	• Access time • Air fare • Flight time • Early and late arrival • On-time performance • Airline reputation • Airport reputation • Aircraft type • Frequent flyer program • Connections	-
(Redmile 2000)	Choice of airline	Mix of business & leisure travelers	• Frequent flyer program • Low fares • Crew service • Seat comfort • Company travel policy • Schedules • Punctuality	Frequent flyer program is the most influential factor for long-haul travelers, while Schedules is most vital for short-haul.
(Hall, Abubakar et al. 2001)	Choice of domestic airline (Australia)	267 travelers aged 18-34	• Value for money • Loyalty program • Service • Food & beverage • e-Booking	*"The Value for Money construct was shown to act as the most significant factor affecting choice of airline."* The factors mentioned in this table were identified as *"critical in airline choice"*.
(Weber 2005)	Choice of airline alliance	819 international travelers	• Ease of transfers between flights • Smooth baggage handling • One-stop check-in • Better assistance in case of	*"All variables were measured on a 5-point scale with a value of 1 indicating strong disagreement and a value of 5 indicating strong agreement."* The most significant variable is the top one,

			problems • Respectful treatment • Consistently high service quality • Ability to earn frequent flyer points • Improved connections • Expanded route network • Access to partner lounge	with the bottom one being the least significant.
(Hess and Polak 2006)	Choice of airport, airline and access mode combination	5,091 air travelers	• Flight frequency • Flight time • Airfare • Aircraft type • In-vehicle access time • Walk time to access mode • Access cost	*"The analysis shows that such factors as flight frequency and in-vehicle access time have a significant overall impact on the attractiveness of an airport, airline and access mode combination, while factors such as fare and aircraft size have a significant effect only in some of the population subgroups."*
(Suzuki 2004)	The impact of airline service failures on travelers' carrier choice	531 recent air travelers	• Frequent flyer program • Airfare • Service frequency • Flight miles • Direct flight	*"Travelers (business or leisure) tend to choose the airlines that offer lower airfares, more direct services, and fewer flight miles in the routes they fly. The results also indicate that travelers tend to choose the airlines for which they are "active" FFP members."* *"The flight-frequency variable is significant in neither the no-carryover nor the loss-aversion models, although it was found to be a significant choice factor in some airline choice studies."* *"All of the service failure variables are either insignificant or have failed to obtain*

				the expected signs. Of the six service failure variables tested, only two attained the expected signs. This pattern implies that the service failure experiences of travelers, such as seat denials (bumping), flight delays, and baggage mishandling, may have minimal impacts on their future airline choice decisions (business or leisure travelers)."
(Andersson 1998)	Choice of airline in case when preferred flight or class is sold out	Near 3,000 departing passengers	• Price • Departure time • Airline brand name • In-flight service • Advanced booking • Sunday rule	-
(Park, Robertson et al. 2006)	Choice of airline	501 international passengers	• Perceived ticket price • Service quality • Perceived value • Passenger satisfaction • Airline image	*"Perceived price was found to have a negative effect on behavioral intentions and was found to have a positive effect on airline image and perceived value."* *"Perceived value had a positive effect on passenger satisfaction and behavioral intentions."* *"Service quality had a positive influence on perceived value and passenger satisfaction."* *"The three insignificant paths were the relationship between 'perceived price and passenger satisfaction', 'service quality and airline image' and 'perceived value and airline image'."* *"Perceived price, perceived value, passenger satisfaction, and airline image were each found to have a direct effect on*

				passengers' future behavioral intentions.
(O'Connell and Williams 2005)	Choice between low-cost and full-fare airline	528 business & leisure travelers	- Quality - Reliability - Connections - Fare - Flight schedule - Frequent flyer program - Safety - Service - Comfort - Company policy	*"There is a strong bias towards young people taking low cost carriers."* *"Passengers travelling on low cost carriers place great importance on price and appear to arrange their itineraries using the least expensive airfares."* *"Passengers using full service airlines are concerned about price but will tolerate a higher fare to gain an advantage through the additional airline products."* *"Travelers are willing to connect through secondary airports and to accept no frills in exchange for low fares."* *"Passengers travelling on incumbents place strong emphasis on reliability, quality, flight schedules, connections, frequent flyer programs and comfort, while travelers taking low cost carriers focus almost exclusively on fare."*
(Huse and Evangelho 2007)	Choice between low-cost and full-fare airline	91 business travelers	- Business lounges - Quality of in-flight services - Frequent flyer program - Frequency - Punctuality - Parking & hotel discounts - Check-in easiness - Ticket emission flexibility - Red-eye flight	Frequency and FFP membership were found to be non-significant when choosing low-cost product. FFP membership was found to be significant when choosing full-fare product. In-flight service and business lounges are significant for full-fare, and non-significant for low-cost products.
(Park 2007)	Choice of airline	1,093	In-flight service	*"Five factors are found to be significantly different when examining factors influencing*

	based on passengers' perceptions	international travelers	• Reservation-related service • Airport service • Reliability • Employee service • Flight availability • Perceived price • Passenger satisfaction • Perceived value • Airline image • Overall service quality	*passengers' buying behavior in terms of airlines: in-flight service, perceived price, passenger satisfaction, perceived value, and airline image."* *"Five factors are found to be significantly different between first and business class and economy class passengers; in-flight service, perceived price, passenger satisfaction, perceived value, and overall service quality."* *"When factors influencing Korean international passengers' buying behavior are examined according to frequency of use, four out of 11 factors are found to be significantly different. These are, in-flight service, reservation-related service, perceived price, overall service quality."*
(Mikulić and Prebežac 2011)	Choice between low-cost and full-fare airline	986 travelers	• Offer of flights and destinations • Ticket purchase experience • Airport experience • Flight experience • Service reliability • Price • Airline image	*"Image of airlines strongly impacts customer loyalty for both passenger segments."* *"Weekly flight frequencies exhibit a strong and significant effect among TA passengers, but only a weak, insignificant effect among LCC passengers."* *"LCC passengers seem to be much more concerned about airline safety than about on-time performance, whereas for TA passengers it is the other way round."* *"Whereas ticket prices are the most influential indicator among LCC passengers, among TA passengers it is discounting/rewarding within loyalty programs that is germane."*

(Seddighi and Theocharous 2002)	Choice of tourism destination	172 tourists	• Cost of living at the destination • Price of tourist package • Facilities • Cost of transportation • Quality of promotion & advertising • Quality of services • Political instability	-
(Chu and Choi 1999)	Choice of hotel	343 business & leisure travelers	• Service quality • Business facilities • Value • Room & front desk • Food & recreation • Security	*"Room and Front Desk and Security were found to be the determining factors for business and leisure travelers, respectively, in their hotel choice selection."*
(Heung and Chu 2000)	Choice of travel agency	183 Hong Kong consumers	• Agency reputation • Word-of-mouth communication • Staff attitude • Interactive agent quality • Formal communication • Overall convenience • Pricing • Product features • Image	*"Agency reputation" was rated as the most important attribute in travel agency selection, followed by "word-of-mouth communication" and "staff attitude." Using factor analysis, six factors were derived, namely, Interactive Agent Quality, Formal Communication, Overall Convenience, Pricing, Product Features, and Image. Results of independent sample t-test and one-way ANOVA revealed that the Interactive Agent Quality, Formal Communication, and Pricing factors varied significantly by gender, and the Formal Communication and Pricing factors varied significantly by income level."*

(Zhang, Qu et al. 2004)	Choice of leisure travel destination	292 Hong Kong residents	- Epidemics - Safety - Disasters - Good value for money - Political & social environments - Availability for accommodation - Availability of transportation - Scenic attractions - Cost of trip - Quality of food - Quality of transportation - Climate	*"The survey indicate that Hong Kong residents perceived epidemics (mean=4.6) as the most important attribute when choosing a destination for leisure travel followed by safety (mean=4.5), disaster (mean=4.4), good value for money (mean=4.3), political and social environments (mean=4.2)."*

1.3. Student as a Travel Product Consumer

Firstly, student travel is a part of leisure travel industry (Field 1999), therefore it makes sense to consider them leisure travelers. This is important because the majority of leisure travelers are much more price sensitive than business travelers with costs being one of the most significant factors when choosing possible travel destination or transportation mode (Zhang, Qu et al. 2004; Chen, Peng et al. 2008).

There are quite a few studies looking into students' consumer behavior. Gallarza and Saura (2006) investigated university students' travel behavior in terms of perceived value. They studied *"the dimensionality of consumer value in a travel-related context (students' travel behavior)"* (p. 437), and explored relations between perceived value, satisfaction and loyalty, confirming *"the existence of a quality–value–satisfaction–loyalty chain"* (p. 437) and demonstrating *"the complexity of value dimensions that have been shown to be highly sensitive to the tourism experience"* (p. 437) as a result.

Babin and Kim (2001) in their work "International Students' Travel Behavior: A Model of the Travel-Related Consumer/Dissatisfaction Process" explored the impact of satisfiers such as perceived safety, fun, and educational benefits on international students satisfaction and personal hedonic and utilitarian travel value. Important finding were that utilitarian value is affected by safely and education benefits of destination, while personal hedonic value is affected by the amount of fun destination may or may not provide.

Field (1999) conducted a research comparing differences in travel behaviors between international and domestic students of major southeastern university in the United States. One of conclusions was the fact that domestic students tend to travel a lot more than international ones, and that *"college market"* may be important and profitable for leisure travel industry if positioned properly, since a lot of students travel during spring and summer breaks.

Chapter 2. Research Framework Outline

2.1. Low-cost vs. Full-fare

This thesis looks into choice of airlines by students, more specifically if students prefer low-cost or full-fare airlines based on a set of factors. Low-cost model implies price to be the strongest competitive advantage of such carriers, however there are trade-offs and disadvantages too. With students generally being very price sensitive, it is interesting to see if the price is the only major factor being considered.

Choice between low-cost and full-fare was the topic of few articles before. For example, Mikulić and Prebežac (2011) studied choice between those two types of airlines by surveying passengers of both, and observing which factors were the most important for them. You can find the most significant findings in Table 1.1. Huse and Evangelho (2007) looked into the same question, but for business travelers, taking into consideration factors usually important for them such as availability of business lounges and frequent-flyer programs. O'Connell and Williams (2005) took into account both leisure and business passengers, looking into which factors were the most important for them while choosing either low-cost or full-fare airline. One of interesting findings included "*a strong bias towards young people taking low cost carriers*" (p. 271).

2.2. Choice of Factors

2.2.1. Price

Price is a very important factor because students, like a majority of leisure travelers, are very price sensitive, and much more price sensitive than business travelers (Field 1999; Zhang, Qu et al. 2004; Chen, Peng et al. 2008). Almost all studies that looked into the choice of airline, and other travel products too, found price, in one interpretation or another, to be vital factor affecting consumer behavior. Like we mentioned before, it is especially significant for leisure travelers, however this factor is also important for some business travelers, for example in case of self-employment or tight corporate budgets (O'Connell and Williams 2005; Huse and Evangelho 2007).

To measure price factor, we are going to use setup suggested by Mikulić and Prebežac (2007) in their article "What drives passenger loyalty to traditional and low-cost airlines? A formative partial least squares approach". They included four attributes of price for respondents to rate in the survey using five-point Likert scale:

- Ticket prices
- Baggage overweight fees
- Inflight shop prices
- Loyalty program discounts/rewards

The following hypothesis is suggested: the more sensitive customers are to the price level, the more likely they are to choose low-cost option.

2.2.2. Service Reliability

The next factor is service reliability. Again, like Mikulić and Prebežac (2011), we are going to include two attributes in this factor:

- Airline safety perceptions
- On-time performance

Safety was found to be extremely important factor in all studies related to choice of any travel product. It is crucial for both leisure and business travelers. Most studies found on-time performance to often be very significant for business travelers on short-haul flights, while passengers taking long-haul flights are usually more time flexible (Proussaloglou and Koppelman 1995; Proussaloglou and Koppelman 1999; Redmile 2000).

The following hypothesis is suggested: the more important reliability is to customers, the more likely they are to choose full-fare product.

2.2.3. Flight Availability

Flight availability is the next factor we are going to use in the research. Framework employed by Park (2007) is going to be used. It consists of two attributes and uses a 7-point Likert scale:

- Convenient flight schedule
- Availability of non-stop flight

Just like attributes described earlier, most studies found convenient schedule to be very important (Proussaloglou and Koppelman 1995; Proussaloglou and Koppelman 1999; O'Connell and Williams 2005; Ha 2010), while non-stop flight option is usually more essential for leisure and inexperienced travelers.

The following hypothesis is suggested: the more important flight availability is, the more likely customers are to choose full-fare product.

2.2.4. Quality of Service

Quality of service related factors were found to be highly important in previous studies. Framework used by Park (2007) focuses on in-flight service and comfort and includes the following attributes (7-point Likert scale was applied):

- Seating comfort
- Seat space and legroom
- Meal service
- In-flight entertainment services
- Up-to-date aircraft and in-flight facility

The following hypothesis is suggested: the more important quality of service is for customers, the more likely they are to select full-fare product.

The model for the research is presented in figure 2.1.
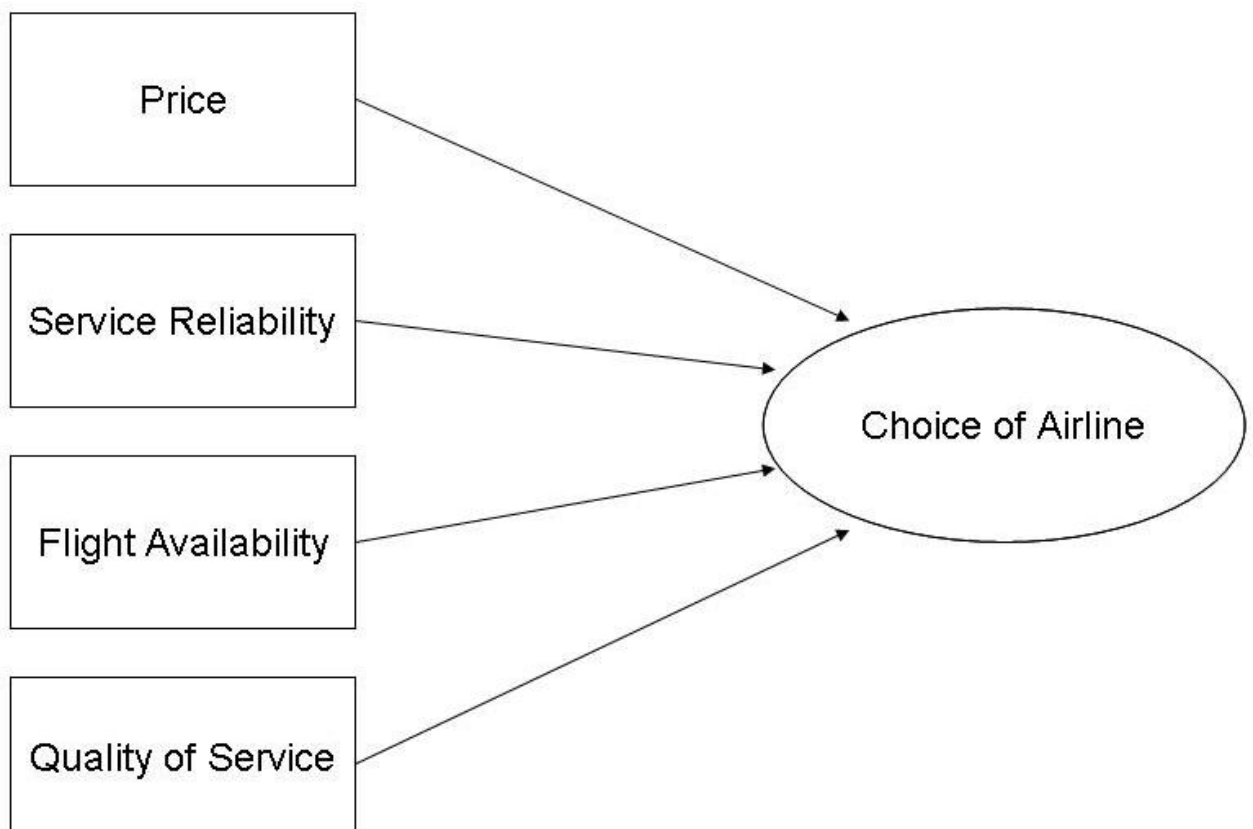
Figure 2.1. A conceptual framework for carrier choice by students

Chapter 3. Research Methodology

Students of the University of Agder were approached with a proposal to fill in the survey for the research. Some 150 students were asked if they would like to complete the survey. About 15 of questionnaires were incomplete due to the fact that a respondent has not taken a single flight for the past 24 months. 32 questionnaires were incomplete, leaving 103 fully completed surveys for data analysis. 31 of those 103 questionnaires were returned by e-mail. The survey was conducted in Kristiansand, Norway at the University of Agder. Students were approached randomly.

The design of the questionnaire is based on multiple-item measurement scales. Dependant variables are measured on a five- and seven-point Likert-type scale. The questionnaire includes four constructs: price, service reliability, flight availability, and quality of service. Six control variables are included: gender, country of citizenship, faculty a respondent belongs to, number of flights during the past 24 months, type of airline most frequently used for the past 24 months, and frequent-flyer program membership.

Software and methods used for data analysis are described below.

3.1. Analysis & Findings

For the analysis of the gathered data IBM SPSS Statistics software was used. Analysis consists of several stages. First stage is factor analysis. According to Field (2009) factor analysis is *"a multivariate technique for identifying whether the correlations between a set of observed variables stem from the relationship to one or more latent variables in the data, each of which takes the form of a linear model"* (p. 786). In other words, it will help us identify which variables contribute to which factors based on the gathered data from questionnaires. As a result of factor analysis, we will come up with four factors that will be used in next analysis stages.

Multicollinearity check is conducted to make sure there is no strong correlation between variables in a regression model. To do this linear regression will be performed in SPSS to obtain variance inflation factors (VIF) and tolerance statistic coefficients. According to Field (2009) VIF indicates if there is a strong correlation between variables, and ,normally, it should not be more than 10. Tolerance statistic is related to VIF and should not be less than .01. Field (2009) also describes why it is important to make sure there is no multicollinearity issue: *"If there is perfect collinearity between predictors it becomes impossible to obtain unique estimates of the regression coefficients because there are an infinite number of combinations of coefficients that would work equally well"* (p. 223).

As the dependent variable we are looking into suggests choosing between two options (students select either low-cost or full-fare airline), logistic regression analysis will be used. According to Field (2009) logistic regression is *"a version of multiple regression in which the outcome is a categorical variable"* (p. 789). Type of airline in our research is such a variable and includes two categories that can be selected. Logistic regression with categorical variable that offers two categories to choose from is called binary logistic regression (Field 2009).

3.1.1. Factor Analysis

Factor analysis was conducted in order to check if items included in the survey indeed reflected the factors they were supposed to capture. Since all items were based on existing instruments, a confirmatory factor analysis procedure was followed by Varimax rotation. All values beneath 0.5 were suppressed.

Table 3.1.

Factor analysis results

Variable	Factor				
	1	2	3	4	5
Ticket prices				,771	
Baggage overweight fees				,548	,700
Inflight shop prices					,799
Loyalty program discounts/rewards			,736		
Airline safety perceptions		,802			
On-time performance		,703			
Convenient flight schedule			,818		
Availability of non-stop flight				,616	
Seating comfort	,699				
Seat space and legroom	,659				
Meal service	,852				
In-flight entertainment services	,873				
Up-to-date aircraft and in-flight facility		,630			

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

As it is clear from Table 3.1., some issues occurred with two of the variables. "Baggage overweight fees" loaded on two factors, making it impossible to detect which variable it uniquely captures. Moreover, after removing this item, "Inflight shop prices" seemed to represent its own factor, therefore becoming a single item factor. As a result, those 2 variables were dropped, and factor analysis

was redone. Results of the second stage of factor analysis are summarized in Table 3.2.

Table 3.2.

Factor analysis results after excluding conflicting variables

Variable	Factor			
	1	2	3	4
Ticket prices				,754
Loyalty program discounts/rewards			,748	
Airline safety perceptions		,777		
On-time performance		,770		
Convenient flight schedule			,812	
Availability of non-stop flight				,739
Seating comfort	,682			
Seat space and legroom	,663			
Meal service	,851			
In-flight entertainment services	,877			
Up-to-date aircraft and in-flight facility		,631		

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

After excluding two variables the analysis produced a clean factor structure, resulting in a four-factor solution that included 11 attributes and explained 69.7% of the variance in the data with eigenvalues greater than 1.0.

Based on the results of factor analysis factor structure has changed to the following:

Table 3.3.
Factor structure based on factor analysis results

Factor			
Price	Quality of Service	Flight Availability	Service Reliability
Ticket prices Availability of non-stop flight	Seating comfort Seat space and legroom Meal service In-flight entertainment services	Loyalty program discounts/rewards Convenient flight schedule	Airline safety perceptions On-time performance Up-to-date aircraft and in-flight facility

3.1.2. Testing for Multicollinearity

To test for multicollinearity linear regression analysis was conducted to only obtain VIF and the tolerance values.

Table 3.4.
Multicollinearity check results

Model	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
Quality of Service	,951	1,051
Service Reliability	,837	1,195
Flight Availability	,645	1,550
Price	,801	1,249
Gender	,896	1,116
What is your current country of citizenship?	,837	1,195
Are you a member of any airline frequent-flyer program?	,481	2,080

Dependent Variable: Please indicate which type of airline have you used most frequently during the past 24 months

As we can see in Table 3.4., tolerance values are well over 0.1, and VIF values are well below 10, which indicates there is no multicollinearity issue (Field 2009).

3.1.3. Logistic Regression

As mentioned before, since the dependent variable is measured as a dichotomous variable reflecting the choice between low-cost and full-fare, a logistic regression was carried to identify factors influencing such choice.

The results of the logistic regression analysis can be seen in Table 3.5. Variables entered are: QUALSER (Quality of service), SERREL (Service reliability), AVA (Flight availability), PRC (Price), Gender, Citizenship, and FFP (Frequent-flyer program). The first parameter we can see is *b*-value. According to Field (2009) *"it represents the change in the logit of the outcome variable associated with a one-unit change in the predictor variable"* (p. 286).

The next parameter is Wald statistic. It is connected with *b*-value and *"tells us whether the b coefficient for that predictor is significantly different from zero"* (p. 287). If it is, we can assume variable is making a significant contribution to the outcome (Field 2009).

The next parameter is odds ratio (*Exp(B)*). According to Field (2009): *"If the value is greater than 1 then it indicates that as the predictor increases, the odds of the outcome occurring increase. Conversely, a value less than 1 indicates that as the predictor increases, the odds of the outcome occurring decrease"* (p. 288).

Table 3.5.

The results of the logistic regression analysis

		B	Wald	Sig.	Exp(B)
Step 1ª	QUALSER	-1,267	18,363	,000	,282
	SERREL	-,232	,721	,396	,793
	AVA	-,452	2,183	,140	,636
	PRC	,519	2,810	,094	1,681
	Gender	-,318	,388	,534	,728
	Citizenship	1,070	3,942	,047	2,915
	FFP	,610	,786	,375	1,841
	Constant	-1,843	1,796	,180	,158

a. Variable(s) entered on step 1: QUALSER (Quality of Service), SERREL (Service Reliability), AVA (Flight Availability), PRC (Price), Gender, Citizenship, FFP (Frequent-Flyer Program).

Results show that quality of service and, interestingly enough, citizenship are two most significant variables that predict if students chose low-cost or full-fare airline, both with significance levels less than .05. The current model correctly classified 79.6% of cases. Cox & Snell R Square was .319; Nagelkerke R Square was .427. R square varies from -1 to 1. Positive values we have here indicate that as independent variable increases, so does the dependent variable (Field 2009). You can observe the results of the analysis in Table 3.5. We can clearly see that they are somewhat controversial. Let's try to look into them more and explain what we obtained.

The most significant factor is quality of service. However, results suggest that the higher the perceived quality of service is the more likely students are to choose low-cost, rather than full-fare, which was originally suggested in the hypothesis.

Out of 103 fully completed questionnaires, 47 respondents indicated they chose low-cost over full-fare. However, an absolute majority of respondents indicated at least two out of four quality of service factor variables (mostly seating comfort and seat space and legroom) to be important to some extent regardless of the type of airline they selected, with the remaining two factor variables being mostly important to those who selected full-fare.

This may be connected to the special features of the place of the research. The town of Kristiansand in Norway where the University of Agder is situated does not have major international airport, and the choices when it comes to travelling directly by air are somewhat limited. While alternative routes with more airline choices are available at more distant airports around Oslo mainly, customers choosing to fly directly from Kristiansand are served by three main airlines. Basically, Norwegian Air Shuttle and SAS have major presence if we are talking about domestic travel, which is applicable to all Norway, with SAS and KLM coming to the picture when it comes to international air travel, serving a lot of destinations worldwide though their hubs in Copenhagen and Amsterdam respectively.

Hence, in my opinion, for most cases it all comes to the perceived quality of service of Norwegian Air Shuttle and SAS. When considering the choice between these two specific airlines, one can claim that the quality of service they are offering on short-haul routes in economy class[1] is somewhat similar.

Moreover, when we are talking about evaluating quality of service by students, it often comes to direct subjective comparison of the features offered by product A to those of product B, and the difference between the two seems to be very small. All of that leads to a conclusion that although the result is unexpected, it still makes sense when we take into account the place where research was conducted. I would expect an opposite result if the research was conducted outside of Norway or among customers of a large airport hub (e.g. Oslo).

The second most significant factor seems to be citizenship. According to the results, Norwegians are more likely to choose low-cost, while non-Norwegians are more likely to select full-fare airline. It is worth mentioning that we have not specified the nationalities or citizenships of non-Norwegians, but the targeted group included students from countries all over the world, for example the United States, Australia, Indonesia, Pakistan, India, etc. The point is, to fly to any of those

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[1] Of course Norwegian Air Shuttle being a low-cost company offers only economy class, while SAS offers business class on international short- and long-haul flights

countries, one would have to choose full-fare airline. We believe it fully explains why our results show that non-Norwegians tend to choose full-fare airlines.

The third factor, although exhibiting weak significance, is price. In this respect, results seem to indicate the higher the price is, the more likely students are to choose full-fare.

All other factors do not seem to impact students' choice between full-fare and low-cost airlines in the sample studied.

In order to understand these findings better, while assuming that citizenship may serve as a moderating factor, an additional analysis was run by splitting the sample between Norwegians and non-Norwegians, results of which are presented below.

3.1.4. Norwegians vs. non-Norwegians

Since citizenship scored such high significance level, we decided to look into this further, and conduct logistic regression analyses for each group separately.

Table 3.6.
Results of the logistic regression based on the country of citizenship

		Citizens of Norway			Citizens of other countries		
		Wald	Sig.	Exp(B)	Wald	Sig.	Exp(B)
	QUALSER	10,021	,002	,161	5,074	,024	,374
	SERREL	2,735	,098	3,460	3,611	,057	,409
	AVA	7,516	,006	,028	,157	,692	1,174
Step 1[b]	PRC	4,981	,026	6,164	,044	,833	1,105
	Gender	1,074	,300	,276	,179	,672	,740
	FFP	4,215	,040	88,866	,405	,525	,515
	Constant	3,130	,077	,005	1,187	,276	8,877

b. Variable(s) entered on step 1: QUALSER (Quality of Service), SERREL (Service Reliability), AVA (Flight Availability), PRC (Price), Gender, FFP (Frequent-Flyer Program).

So, according to Table 3.6., significant factors for citizens of Norway include quality of service, flight availability, price, and frequent-flyer program

membership. For citizens of other countries, only two factors seem to be of high significance: quality of service and service reliability.

We can see that quality of service behaves in the same way for both groups of respondents. That is, the higher the quality of service is, the more likely students are to choose low-cost airline. For an explanation why we think we have result like this, please see previous section *Logistic Regression*.

Service reliability seems to be much more significant for non-Norwegians than for Norwegians. Furthermore, results concerning service reliability showed the higher its importance is, the more likely students are to choose low-cost. We believe this is a valid statement for a number of reasons. Firstly, a lot of low-cost airlines have flawless safety record. Secondly, on-time performance record of low-cost airlines is often higher than full-fare ones. Thirdly, low-cost airlines most often have the newest airliners on the market, because they are the ones offering best fuel economy which essentially allows low-cost carriers to offer lower prices. For example, according to planespotters.net average age of Ryanair fleet is 3.9 years, Norwegian Air Shuttle – 5.8 years, SAS – 13.6 years, and KLM – 9.4 years. This also impacts on-time performance and safety.

The second most significant factor for Norwegians is flight availability. Now, according to the factor analysis, it includes two variables: loyalty program discounts/rewards and convenient flight schedule. The results of the regression indicate that the more important this factor is, the more likely low-cost option is to be selected. This statement is somewhat controversial, because we expected high importance of flight availability to contribute to choice of full-fare more. However, Norwegian Air Shuttle, unlike most low-cost airlines, does have frequent-flyer program, and its flight schedule, as far as we are concerned, is not any less convenient than that of SAS. Of course, Norwegian Air Shuttle frequent-flyer program is not even closely as complex and beneficial as Star Alliance[2], without elite levels, business lounges access, and so on; however, those features are typically not important for students or leisure travelers.

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[2] SAS is a member of Star Alliance, one of world's leading airline global alliances

Frequent-flyer program membership appears to be relatively significant for Norwegians. What's interesting is frequent-flyer members seem to prefer low-cost rather than full-fare. We explain this, like mentioned above, by the fact that Norwegian Air Shuttle does have frequent-flyer program. Perhaps, its simplicity is more appealing to students than rather complex Star Alliance program that requires you to fly quite a lot to maintain elite level membership that actually gives you some benefits. We should also notice that according to questionnaire results most students flew 1-6 times during the last 24 months.

One of the most interesting things is a difference in significance of price factor between Norwegians and citizens of other countries. We should remind you that according to factor analysis, this factor includes two variables: ticket prices and non-stop flight availability. It seems safe to assume that availability of non-stop flight is more significant to a Norwegian student than to a foreign one. In fact the only two regular international destinations served from Kristiansand are Copenhagen and Amsterdam by SAS and KLM respectively. Therefore, in order to fly to any other international destination from Kristiansand, one would have to transfer either in above cities' airports or one of Oslo airports. We believe it partly explains low significance of price factor for non-Norwegians. An addition to this may be the varieties of countries around the world international students come from, which means some of the students traveled long-haul, which effectively may have lowered their price sensitivity. Moreover, if we look at odds ratio for foreign students, we can see it's above 1, which means the probability of choosing full-fare goes up with higher prices and non-stop flight importance. This is true for Norwegians as well.

Finally, we can conclude that, according to the results of the logistic regression analysis, the most significant factor that impacts both Norwegians and non-Norwegians in the same way is quality of service. Other highly significant factors for Norwegians, unlike foreigners, include flight availability and price.

3.2. Discussion

As a result of this research, we found out that quality of service is the most significant factor that impacts students' carrier choice. However, higher quality of service unexpectedly provokes students to choose low-cost airlines, rather than full-fare like we anticipated. Other factors of high significance include price and flight availability for Norwegians, and service reliability, to a lesser extent, for non-Norwegians.

Overall, the sample of our study compared to earlier studies is very different. We chose to focus on students as customers while the majority of earlier studies focused either on business or leisure travelers, or both, not limiting themselves to a particular occupation of the respondents.

Among all the previous studies we looked into, only two were focusing on student travelers. Chen, Peng et al. (2008) discovered that in-flight service quality was the most important factor to students. Of course, their research is based on long-haul London-Taipei route, where the choice is limited to a number of full-fare carriers. It is fair to assume that factors that influence customer's choice for a long-haul flight are different to ones for a short-haul. However, despite the fact that the two researches are very different in data gathering and analysis methods, both concluded quality of service to be the most significant factor. Therefore, even though the methodology applied in the studies is different, we can say that our study supports the results of the research conducted by Chen, Peng et al.

Another research involving students, more specifically postgraduates, was conducted by Ha (2010) and looks into choice of no-frills airline using different choice models, consequently it mostly concentrates on result differences of application of various choice models rather than choice of factors. Nevertheless, price is mentioned to be the most important factor for nearly all subjects. According to the results of our research, price is much more significant for citizens of Norway than for citizens of other countries. Like already mentioned above, according to factor analysis, the price factor consists of two variables: ticket prices

and non-stop flight availability. It seems fair to assume that availability of non-stop flight is more significant to a Norwegian student than to a foreign one, especially in case of Kristiansand. In fact, the only two regular international destinations served from Kristiansand are Copenhagen and Amsterdam by SAS and KLM respectively. Therefore, in order to fly to any other international destination from Kristiansand, one would have to transfer either in above cities' airports or one of Oslo airports. Obviously, in order to travel to any airport in Oslo, one would have to take a domestic flight with Norwegian Air Shuttle or SAS, or, alternatively, select a different kind of transportation. We believe it partly explains low significance of price factor for non-Norwegians. In addition, we explain this result by wide variety of countries around the world international students come from, which means some of the students traveled long-haul, which effectively may have lowered their price sensitivity. Other factors found important by Ha (2010) include no delay, value for money, and availability. If we look at our results, we can see that both flight availability and price are very significant to the group that prefers low-cost airlines. Service reliability is somewhat significant, but not as much. Therefore, even though we have not compared different choice models like Ha have, we could say that the results we received are somewhat alike, at least to some extent.

A number of studies also looked into choice between low-cost and full-fare airlines, one of which focuses exclusively on business travelers, with other two focusing on mix of business and leisure travelers. Basically, both O'Connell and Williams (2005) and Miculic and Prebezac (2011), who include both leisure and business passengers in their studies, conclude price to be the most important factor for low-cost airline passengers. In our research we found price to be important for Norwegians, majority of whom took low-cost carriers, but not so important for non-Norwegians, who mostly chose full-fare airlines. O'Connell and Williams (2005) conclude that *"Passengers travelling on incumbents place strong emphasis on reliability, quality, flight schedules, connections, frequent flyer programs and comfort, while travelers taking low cost carriers focus almost exclusively on fare"*

(p. 271). The results of our research show that Norwegians, who prefer low-cost airlines, place equally strong emphasis on price, quality of service, and flight availability. In general, the results of our research support the results of the study conducted by O'Connell and Williams, as Norwegian students, who mostly choose low-cost airlines, focus on price, as well as on quality of service and flight availability, while foreign students, who seem to prefer full-fare airlines, focus heavily on quality of service and, to a lesser extent, on service reliability.

Miculic and Prebezac (2011) note that safety is more important than on-time performance for low-cost airline passengers, while for full-fare passengers it is the other way around. The results of our research indicate that safety and on-time performance are both constructs of the service reliability factor, which is more significant for non-Norwegians, who prefer full-fare, and only slightly important to Norwegians. They also say that the most influential factor for low-cost passengers is ticket prices, whereas for full-fare travelers it is loyalty program discounts and rewards that is the most important. Our results show that ticket prices, being a part of price factor, are very important to Norwegians, but somewhat unimportant to foreigners. As for loyalty program discounts and rewards, it is a part of flight availability factor, and is highly significant to Norwegians as well. Like we already discussed before, we connect this result to the fact that Norwegian Air Shuttle does have a frequent-flyer program, and it seems to appeal to students more than the SAS program. We can see that the results of this research support some findings of the research conducted by Miculic and Prebezac, but contradict several other findings as well.

Another research that examined choice between low-cost and full-fare airlines was conducted by Huse and Evangehlo (2007). The major difference is they concentrated exclusively on business travelers. Typically, business passengers are much less price sensitive than leisure ones. They conclude that: flight frequency and frequent-flyer program membership are not significant when choosing low-cost product; frequent-flyer program membership is significant when choosing full-fare product; in-flight service and business lounges are significant for

full-fare, and insignificant for low-cost products. Our results are exactly the opposite. Although we do not have a variable that represents flight frequency, we can say that it is interconnected with availability of non-stop flight and convenient flight schedule, which are the constructs of price and flight availability factors respectively. These two factors are extremely significant for the group that prefers low-cost, as well as frequent-flyer program membership, and quality of service. Of course, quality of service factor, that mainly represents in-flight service, is equally significant to the other group that prefers full-fare product. Therefore, as expected, due to the difference in research samples, results are very dissimilar.

A variety of other studies that look into the choice of airline do not distinguish between occupations of target group subjects, only mentioning a mix of business and leisure travelers. They also do not distinguish between types of airlines, focusing on factors impacting carrier choice in general. For example, Proussaloglou and Koppelman (1999) found out that carrier market presence, quality of service, and frequent-flyer program membership have positive impact on carrier choice. It is hard to compare these results to our results directly, but we can say that in our research quality of service is definitely very significant, and contributes to a selection of low-cost carrier, whereas in Proussaloglou and Koppelman's research it contributes to an actual fact of selection of any carrier that can offer relatively high quality of service according to customer's perceptions.

An article by Redmile (2000) concludes that frequent-flyer program is the most influential factor for long-haul travelers, while schedules is vital for short-haul. Both these constructs are included in our research, and are part of a single flight availability factor. Based on the results of the thesis we can assume that foreign students travel long-haul more often than Norwegians. However, decisions made by Norwegians are much more influenced by flight availability than those of foreign students, and the factor itself contributes towards the choice of low-cost airlines, which means short-haul travel at least for now. This basically means that our research supports the fact that schedules factor is significant for short-haul travelers, but contradicts the part of conclusion about frequent-flyer programs.

SUMMARY & CONCLUSIONS

We have done a research that looks into the factors that influence students' choice of airline. The research was conducted at the University of Agder in Kristiansand, Norway. IBM SPSS Statistics software was used for analysis of the data gathered with the survey. Students of the University of Agder were randomly selected and asked to fill the questionnaire. Analysis included factor analysis, multicollinearity check, and logistic regression.

We found out that quality of service is the most significant and important factor that influences students' carrier choice. However, according to the results, the higher quality of service provokes students to choose low-cost airlines, rather than full-fare. We connect this to the unique features of Kristiansand as an air travel destination, limited number of airlines that have regular scheduled flights to Kristiansand, as well as the fact that two major airlines operating in Norway, Norwegian Air Shuttle and SAS, have somewhat similar level of service in economy class, even though SAS is a full-fare airline, which usually means one would expect higher quality of service from it.

Moreover, according to the results of the survey, most Norwegian students chose low-cost airlines, while foreign students seemed to prefer full-fare. This may be connected to the fact that surveyed group included students from countries all over the world. Therefore, an additional analysis was run by splitting the sample between Norwegians and non-Norwegians. Results indicate quality of service, flight availability, and price to be highly significant factors for citizens of Norway. For citizens of other countries, only two factors seem to be of high significance: quality of service and service reliability. An interesting thing is both flight availability for Norwegians and service reliability for non-Norwegians contribute to the choice of low-cost rather than full-fare.

Furthermore, such difference in the results between Norwegians and citizens of other countries can be caused by a wide diversity of foreign students' nationalities, cultures, income levels, and therefore, set of values. Without a doubt,

all these factors impact the choice of any product in one way or another. In contrast, students that are citizens of Norway have mostly the same culture, comparatively close income levels, and relatively similar set of values.

We should notice that for this research new measurements, and combination of items used in previous studies were employed. Besides, this research does not exactly replicate any earlier studies. Therefore, the accuracy of the results can be increased with future studies concerning students' air carrier choice.

The results of the research have important implications for further studies. In order to better understand and see if the findings of this thesis hold in other settings, several steps can be taken: include more countries or geographical areas for respondents to select, which will enable us to better understand travel patterns student travelers take and identify short-haul and long-haul travel; offer a choice of exact airlines rather than business models, which may be confusing; find out if any students have an elite status within frequent-flyer programs, which may help us to better separate members of low-cost airlines loyalty programs; develop a modified set of factors that would use a unified Likert scale and better represent different sides of air travel experience; conduct additional interviews with a selected group of respondents to make sure all the elements of the survey are understood as intended; widen the research by including all major universities in Norway, and therefore all the major cities, see if similar results are obtained; define the time when the majority of students are travelling for one reason or another.

We believe that while having important implications for further studies, the results of the thesis have somewhat limited implications for practice at this time. We would expect the results to become much more significant should the possible steps suggested above be taken. Applying those steps and comparing the results, which will lead to a better understanding of the student travel market in Norway as a whole, may potentially have significant practical implications for both domestic and international air carriers operating in Norway. We also think that conducting similar research in more active environment, for example in Oslo where customers

have more options both airline- and airport-wise, will greatly increase its value for business entities, as well as contribute to an understanding of the results.

APPENDIX

Appendix A

The survey used for data gathering

Getting to know you better

Are you:
- ❑ Male
- ❑ Female

What is your current country of citizenship?
- ❑ Norway
- ❑ Other

Please indicate which faculty you belong to at the University of Agder:
- ❑ Faculty of Health and Sport Sciences (Fakultet for helse- og idrettsvitenskap)
- ❑ Faculty of Humanities and Education (Fakultet for humaniora og pedagogikk)
- ❑ Faculty of Fine Arts (Fakultet for kunstfag)
- ❑ Faculty of Engineering and Science (Fakultet for teknologi og realfag)
- ❑ Faculty of Economics and Social Sciences (Fakultet for økonomi og samfunnsvitskap)

How many flights have you taken during the past 24 months (please indicate number of one-way flights)?
- ❑ None
- ❑ 1-6
- ❑ 6 and more

Please indicate which type of airline you have used most frequently during the past 24 months (kindly select only one option):
- ❑ Low-cost (e.g. Norwegian Air Shuttle, Ryanair, easyJet, Southwest Airlines, etc.)
- ❑ Full-fare (e.g. SAS, KLM, British Airways, Lufthansa, United Airlines, etc.)

Are you a member of any airline frequent-flyer program?
- ❑ Yes
- ❑ No

Please indicate the importance of the following attributes based on your flying experiences during the past 24 months.

	Extremely important	Somewhat important	Neutral	Somewhat unimportant	Completely unimportant
Ticket prices	❑	❑	❑	❑	❑
Baggage overweight fees	❑	❑	❑	❑	❑
Inflight shop prices	❑	❑	❑	❑	❑
Loyalty program discounts/rewards	❑	❑	❑	❑	❑
Airline safety perceptions	❑	❑	❑	❑	❑
On-time performance	❑	❑	❑	❑	❑

Please indicate the importance of the following attributes based on your flying experiences during the past 24 months.

	Extremely important	Moderately important	Slightly important	Neutral	Slightly unimportant	Moderately unimportant	Completely unimportant
Convenient flight schedule	❑	❑	❑	❑	❑	❑	❑
Availability of non-stop flight	❑	❑	❑	❑	❑	❑	❑
Seating comfort	❑	❑	❑	❑	❑	❑	❑
Seat space and legroom	❑	❑	❑	❑	❑	❑	❑
Meal service	❑	❑	❑	❑	❑	❑	❑
In-flight entertainment services	❑	❑	❑	❑	❑	❑	❑
Up-to-date aircraft and in-flight facility	❑	❑	❑	❑	❑	❑	❑

Thank you for your time!

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