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Airport Service Quality, Satisfaction and Loyalty Membership

-The case of Keflavik and Landvetter Airports

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ABSTRACT

This study is based on previous research on service quality, satisfaction, loyalty membership and the management of airports. Airport operators aim to please different passenger segments by offering revenue generating services that satisfy passengers in their wait for a flight. Traditionally passengers belong to airline loyalty programs in order to gain access to airport business lounges.

The main purpose of this study is to investigate the feasibility of airports introducing their own airport loyalty program in small international airports as well as measuring satisfaction of chosen service attributes. As both Keflavik and Landvetter airports have less than 5 million passengers per year and have different passenger and flight profiles, they were chosen for this case study comparison.

Interviews with airport management were conducted. A self-completion questionnaire was presented to departing international passengers at both Keflavik and Landvetter airports. The theoretical framework of this study aims to fulfil the gap in literature on airport relationships between various customer groups and the airport as well as provide a review of service quality, satisfaction and loyalty in general and for airports in particular.

The results indicate that satisfaction and service quality have no affect on the interest in belonging to an airport loyalty program, rather it is past experience and travel purpose that contribute to loyalty membership in airports. This conclusion suggests that airport loyalty program is likely to appeal to business travellers who fly frequently.

Keywords: **Service Quality, Satisfaction, Loyalty, Loyalty Membership, Airport Relationships, Keflavik Airport, Landvetter Airport.**

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1 INTRODUCTION

1.1 Determining the Situation

The aviation industry has grown nearly continuously since the Second World War, with the events of September 11, 2001 and the current global economic downturn making a minor decrease for the sector (Graham, 2003). Doganis (1992, p. 7) defines airports as „essentially one or more runways for aircraft together with associated buildings or terminals where passengers or freight transported by the aircraft are processed". Doganis (1992) classifies the wide range of services and facilities provided by an airport into three categories: essential operational services, traffic-handling services and commercial activities. The airport is not a destination for tourists travelling by air, but rather a transition point (Fodness & Murray, 2007). Airports are a place where passengers encounter a bundle of tangible and intangible services in what Bitner (1992) might characterize as an "elaborate servicescape".

Research and common sense shows that the main drivers of one's choice of an airport are the air services the airport offers and its location (Graham, 2003; RSA, 2008). The airlines, routes, schedule and price are basically the air services offered by airports. Deregulation of the airline industry motivated airports to compete for airline routing (Fodness & Murray, 2007; Graham, 2003). With more demanding air travellers, airports believed they could influence airline routing decisions using a pull-strategy by offering augmented services or promising exceptional customer satisfaction (Fodness & Murray, 2007). Hence, the airport industry turned to service quality as a strategy for achieving competitive advantage.

Airports generate revenue from two sources, aeronautical and non-aeronautical (Graham, 2003; Graham, 2008; Doganis, 1992; Freathy & O'Connel, 2000). Aeronautical revenue comes from airlines for using airport facilities and includes landing fees. Non-aeronautical revenue is also called commercial revenue and comes from retail (concessions), car parking, car rental, property leases, advertising, consultancy, property development and other sources (Francis, Humphreys & Ison, 2004; Graham, 2008). Kim & Shin (2001) describe commercial revenues as rents for office and commercial retail space including duty-free shops, car-parking fees, recharges to tenants for services such as electricity, water and so on, and revenues from catering. Zhang & Zhang (2003) say it can also include the running of extensive office, maintenance and cargo facilities.

Airports have increased their dependency on commercial revenues in the past years due to mainly two reasons according to Graham (2008). First, the commercialisation and, sometimes, privatisation of airports from public entities have given airports the freedom, expertise and motivation to utilise the commercial opportunities that exist. Second, airlines have pressured airports into keeping their charges static, or decreasing them due to the fierce competition that airlines face and need to keep their costs at minimum. Deregulation and the introduction of low cost airlines are the main reasons for this increase in competition among airlines (Freathy & O'Connel, 2000; Graham, 2003; Francis et al., 2004).

Commercial revenues account now for about half of all airport revenues, however this varies by global region (Graham, 2008; Appold & Kasarda, 2006). Many researchers have stressed the increasing importance of non-aeronautical or commercial revenues to airports (Papagiorcopulo, 1994; Freathy & O'Connel, 2000; Graham, 2003; Francis et al., 2004; Graham, 2008). According to Freathy (2004), the objective for many airport authorities has been to reposition the airport, making it a commercial attraction in its own right, instead of merely offering limited assortment, price-based, branded products. This can be achieved by segmenting the customer base and providing a focused range of shopping facilities, which provides a consistent income stream for the retailer and the airport authority (Freathy, 2004). By allocating more space to services and retail, airports are able to generate more income. Airports that strive to match their commercial offerings to the main demographic profile of travellers and then market this effort to raise awareness among potential travellers should be able to increase their revenue and thus profit. The question remains; how can this be achieved?

Airports vary greatly in size and demographics of travellers. Typical forms of retail shopping in airports are high price branded products. With cheaper flights and more disposable income travelling among new groups of people has increased in the past decade. This group of travellers has no interest in Gucci and Boss, for example. Airports have come to meet the new demands of travellers. One good example is Copenhagen airport. It is a fairly big airport with over 21 million passengers in 2008 (Copenhagen Airport, 2009). The whole departure terminal there looks more like a shopping mall than an airport terminal. It has changed dramatically in the last 10-15 years and aims to meet the demands of a new customer base, as well as allocating their commercial space in a logistical manner. For example, all the children clothing stores, toy stores and any stores that cater to people with children are located near the children playing area of the Copenhagen airport.

Can this been done at a smaller airport as well? Airports like Keflavik, Iceland and Landvetter in Gothenburg, Sweden don't have the passenger volume to offer the great variety of shopping as Copenhagen airport does. How can these small airports manage their commercial space in order to generate maximum profit from it? Is there anything else that airports can do to increase their commercial revenues directly from passengers?

There are two types of loyalty membership in the aviation industry. First, a loyalty membership program with the airline itself or an alliance of airlines together. This type of loyalty program is very common and frequent travellers are typically members of an airline loyalty program with an airline they frequently use. The second type, which is much less common, is a loyalty membership program directly with the airport. Amsterdam Schiphol airport offers a membership called Privium, which promises speed, comfort and priority for an annual fee of EUR 159 (Schiphol Airport, 2009). By doing this, Schiphol airport is increasing its direct commercial revenues. The British Airport Authority (BAA), which operates all the major British airports, offers passengers the opportunity to book a lounge per trip for a one time fee (strictly not a loyalty program). This is done via contracted companies,

either handling agents or company specialised in operating airport lounges. Thus, the revenues generated from passengers are indirect, via concessionaries.

Bolton, Kannan and Bramlett (2000) confirmed with their study the traditional view that loyalty programs offer an opportunity to build longer, stronger and deeper relationships with customers. Introducing airport loyalty membership programs in competition with the current airline loyalty programs might pose a problem. Results from Liu and Yang (2009) indicate that the product category of a loyalty program is expandable, as is the case for airport membership programs; they can help an industry gain competitive advantage over substitute offerings outside the industry, even in high market saturation.

1.2 Problem Area and Purpose of Study

The aviation industry has faced dramatic changes in recent years. Deregulation has resulted in fierce competition forcing airport operation into cost cutting and finding new areas of revenues. The aim of this study is to investigate the feasibility of offering an airport loyalty program in small international airports and to measure satisfaction of certain chosen service attributes in airports. This will be accomplished by accumulating current literature on airport operation, investigation of secondary data available and quantitative research by questioning passengers at airport location.

The relationships in airports are complex with both business to business (B2B) relations and business to customer (B2C). When a passenger goes through the airport, he meets various actors in his service encounters, both non-airport and airport. There is a gap in the literature when it comes to describing these relationships. The research outcome is expected to contribute to managerial decisions at Landvetter and Keflavik airports, and possibly other small airports as well as contributing to airport management literature.

The research question has been formulated as following:

What factors influence the willingness to pay a fee for an airport loyalty program?

After identifying the research problem, seven hypotheses were generated from the literature review in chapter 2. In testing the hypothesis set forth and answering the research questions, two small airports are chosen for the study, Landvetter airport in Gothenburg, Sweden and Keflavik airport in Keflavik, Iceland. In order to achieve the aim of the study and answer the research question, the following objectives have been made:

O1	*To fulfil the gap in literature on airport relationships between various customer groups and the airport.*
O2	*To answer the hypotheses based on relevant tests and analysis.*
O3	*To make conclusions and give recommendations to Keflavik and Landvetter airports.*

O1 is aimed at fulfilling the gap in literature on airport relationships. By conducting a review of relevant literature and drawing a picture of the relationship between various customer groups and the airport, describing the relations, this objective will be met. O2 tests and analyses the hypotheses set forth in the research model of this study. O3 discusses research results and findings in order to make conclusions and provide recommendations to Keflavik and Landvetter airports.

1.3 Structure of the Thesis

This study has seven chapters and appendices. In this first chapter, an introduction to the situation of the aviation industry and airports in particular is provided as well as study purpose, research question, objectives and limitations. The second chapter provides a discussion of literature that contributes to the understanding of airport relationships, airport service quality and customer satisfaction. The third chapter presents the development of the research question, model of underlying theories, research model and hypotheses. A discussion of the research methodology for this study is presented in chapter four.

Chapter five illustrates the results from the empirical research of the study, beginning with explaining the background of the two airports studied in this case. An analysis of the results with a focus of testing the hypotheses is provided in chapter 6. The final chapter concludes on this study and gives recommendations to management of Keflavik airport, management of Landvetter airport and for further research.

2 THEORETICAL FRAMEWORK

This chapter provides a review of relevant literature. It begins by evaluating airport relationships as a means of determining who the airport's customer is. A new model for airport relationships will be drawn and explained. The servicescape and physical evidence of airports are clarified. Airport service quality, customer satisfaction and loyalty are defined and the link between them is explained. The importance/performance model is explained to show the link between it and measuring satisfaction.

2.1 Airport Relationships

The focus of this section is to shed light on "who" is the airport customer. According to Freathy and O'Connell (2000), it is still open to debate. Airport customers can be categorized into primary and secondary, with primary customers being the airlines, handling agents, concessions and other tenants and secondary customers being the passengers, as they are the responsibility of the airlines. Airports would not exist without the airlines as there simply would be no passengers if the airlines would not choose to use certain airports. Traditionally, the relationship between airports and passengers is solely via airlines (see *Figure 2.1*, below). This distinction between primary and secondary customers is difficult to maintain as the boundaries of responsibility between the airline and airport operator is often unclear in the passenger's mind, which leads to "over the tail" marketing to all who use the airport (Freathy & O'Connel, 2000).

Figure 2.1 Airport relationships: traditional model
Source: Francis et al. (2004, p. 509)

With deregulation of the airlines, more competition in the industry, commercialisation and privatisation of airports emerged. Francis et al. (2004) maintain that the increased emphasis on commercial activities in airports date back to the mid-1990's. Since then, a new model for the airport relationships has emerged (see *Figure 2.2*, below). Today airports have a more complex relationship with its customers, where airlines are just one type of a customer. Other

customers are tenants, visitors, concessions and passengers according to the new commercial model in *Figure 2.2,* below.

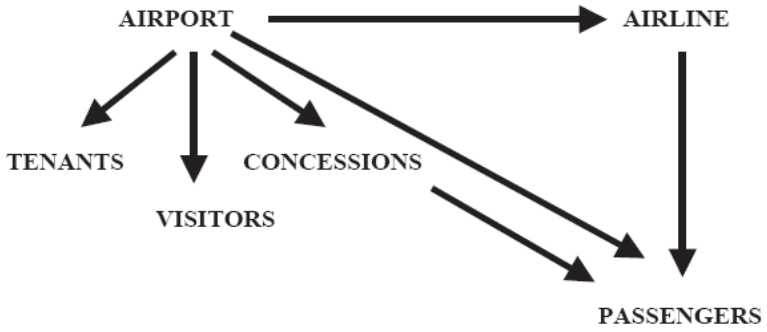

Figure 2.2 Airport relationships: new commercial model
Source: Francis et al. (2004, p. 509)

Francis et al. (2004) do not explain who the tenants and visitors are, but mention that concessions include retailers and caterers. Tenants are those that rent space from the airport and may include handling agents, air traffic control, police (passport control), and customs control. Concessionaries are specialists in their own field of business and provide commercial facilities in most European airports (Doganis, 1992). Concession fees or rents are collected from concessionaries by airport authorities. An example of concessions are duty-free shops, other airport shops, restaurants, cafés, bars, car rental companies, oil companies (e.g. gas station), transportation companies (e.g. rail, bus, taxi), car parking subcontractors and hotels.

Passengers are also a secondary customer base to the airport via concessions. Yet, both passengers and visitors of the airport are direct customers. This is true for all the services, retail and restaurants that airports provide to them. For example, both Landvetter airport and Keflavik airport provide car parking service for passengers and visiting guests, giving the airport direct a relationship with these customers.

The services and facilities provided by an airport can be categorized into three groups according to Doganis (1992). The following table (see *Table 2.1*) is an adaptation of this categorization with a description of each category as well as explanation of who provides the services.

Table 2.1 The overall airport umbrella (services and facilities provided)

Essential operational services and facilities	Traffic-handling services	Commercial activities
Air traffic control services Meteorological services Telecommunications Police and security Fire and ambulance services Runway and building maintenance	Aircraft handling, e.g. cleaning, provision of power, loading/unloading of baggage or freight Traffic related, e.g. processing passengers, baggage or freight through terminals onto the aircraft	Shops (duty-free/other) Restaurants/bars/cafés Car Parking Car Rentals Banks Hotels Conference centre Other services
Provided by airports or by local or central government departments	Provided by airlines, specialist handling agents or airport authorities themselves	Provided by concessionaries or airport authority

Source: Adapted from Doganis (1992)

2.1.1 The airport service encounter

Shostack defines the service encounter as "a period of time during which a consumer directly interacts with a service" (Bitner, 1990, p. 70). This definition covers all aspects that the consumer may interact with the service organisation, which would include personnel, its physical facilities and other tangible elements during a given period of time. For the purpose of this study, a brief explanation of the services provided in an airport that passengers themselves come in contact with, or encounter, will be made. *Figure 2.3* illustrates the airport service encounter cascade as Zeithaml, Bitner and Gremler (2006) call it, but Freathy and O'Connel (1999) call it the airport passenger processing system.

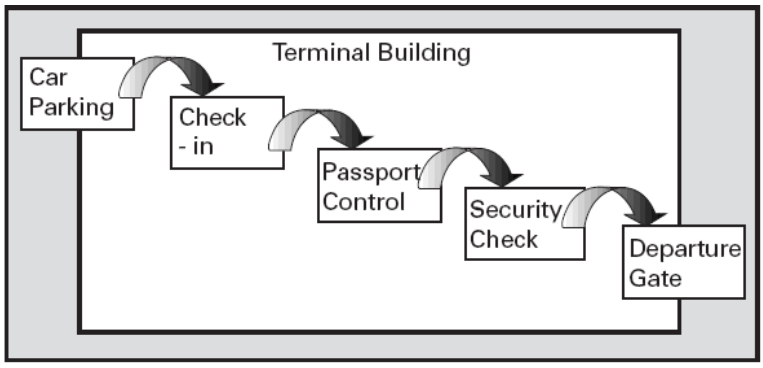

Figure 2.3 Airport passenger processing system (a service encounter cascade)
Source: Freathy and O'Connel (1999, p. 594)

The following is a story about the service encounters a family might experience at an international airport. It is a fiction and could happen at any airport. This story is introduced as

a mean to explain the passenger service encounter in the figure above and to link to the theories discussed in the remainder of this chapter.

Peter was travelling on an international flight with his family. Upon arrival at the airport by car, Peter finds his way to the airport's parking facilities. Car parking is provided by the majority of airport authorities themselves (Doganis, 1992). Peter has so many bags that he needs to find a cart to hold them, a service that is either free of charge or not and probably always provided by the airport. While reading the signs that guide him to the check-in hall, he wonders whether or not to use the self-check in machine or just stand in line and wait for regular check-in. Realizing that it might be too stressful to try to figure out how the machine works, Peter heads for the check-in queue with his family. After waiting in line for about ten minutes, the family approaches the check-in personnel.

The encounter with the handling agent was not a good one, because the agent charged Peter for excess luggage, even though the family was only 2 kg above the limit. The agent was also rude in his communication. Peter was under the impression that the handling agent was a staff member of the airline and he cursed the airline for its strict regulations and rude staff. Peter's wife corrected him and said that it was probably the airport's fault for hiring such bad employees.

As the family was making their way to security control, the children voiced their need to go to the toilet. Peter looks up at the signs to see if he can find a toilet sign. Thankfully the toilet was nearby and the family was satisfied with the appearance of the toilets, which made their experience there a bit more enjoyable.

When they reached the security control, the queue for it was extremely long. Now, Peter cursed the airport for not anticipating the number of passengers by staffing more security people and having more of those scanning machines. He was getting worried that he wouldn't have time to purchase a camera in the duty-free store that he researched online and had been saving up for. He was looking forward to using it on the vacation. The encounter with security control personnel was just fine, they were courteous and smiled.

Fortunately, Peter managed to buy the camera before they started boarding the aircraft. The family even had a little time to sit down at one of the airport's cafés and have a drink. Although Peter thought the café was overcharging, his wife reminded him that they were on holiday and should just enjoy themselves.

There was no need for any passport control as the flight was within Schengen[1]. To Peter's amazement, the same employee from check-in was standing by the gate waiting to board the passengers. Expecting to get the same rude treatment as earlier, Peter was surprised when the employee greeted him politely and smiled.

[1] Schengen is an agreement where boarder control has been eliminated between the twenty five member countries in Europe.

While Peter was looking forward to his holiday and thinking about the initial experience of it, he looked out the window of the aircraft to see the ramp employees load the baggage and cargo onto the aircraft and wondered "what a complex phenomena, the airport is!"

2.1.2 The airport as a "multipoint service-provider firm"

Jarach (2001) describes the relationship between the actors of air transportation that bundle service packages to end consumers. Two types of end consumers are defined by Jarach (2001). First, the passengers (either business or leisure) and second, the production or service firms soliciting cargo air services. The air transport pipeline (shown in *Figure 2.4*) draws the main business to business (B2B) and business to consumer (B2C) market relations between the actors.

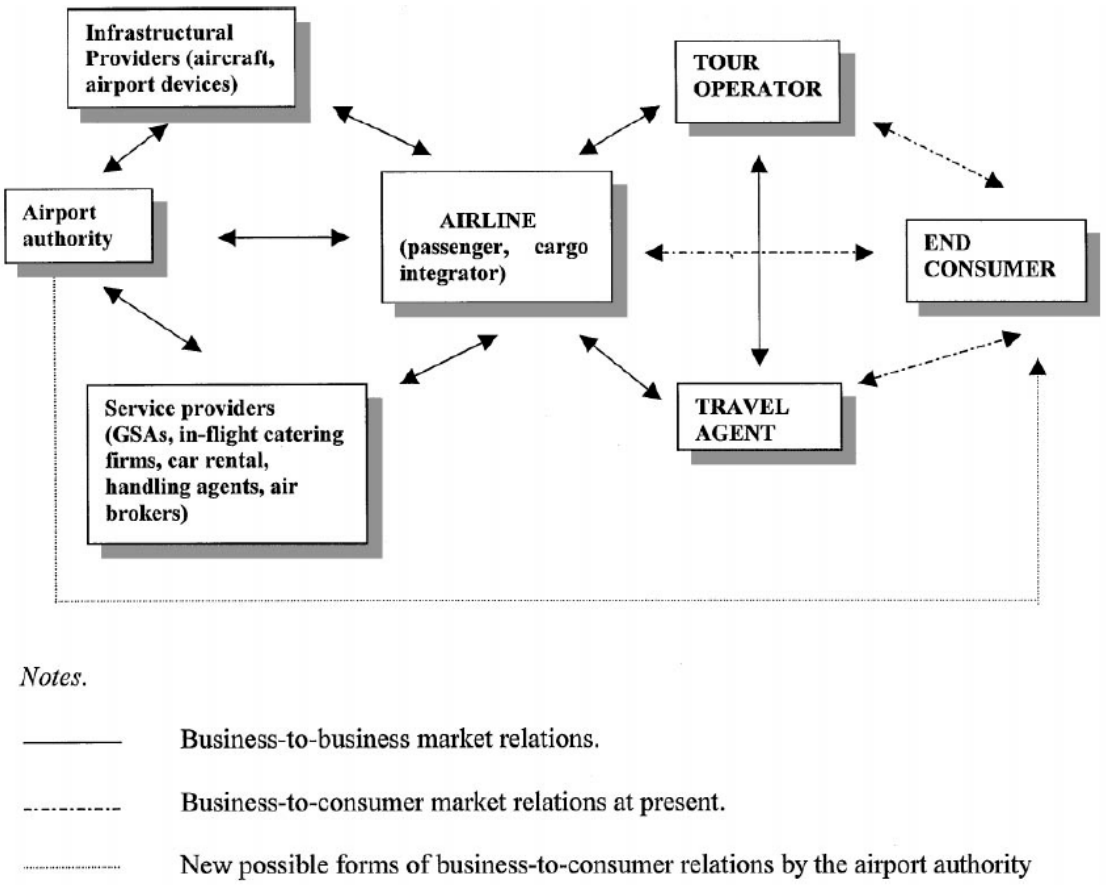

Figure 2.4 The air transport pipeline
Source: Jarach (2001, p. 120)

The revenue to the airport authority from the airlines and service providers are aeronautical revenues. These include landing fees, air traffic control fees, passenger and cargo boarding fees and handling fees (Jarach, 2001). Deregulation has impacted competition in such a way that all aeronautical fees have been forced to an average of 5 percent margin (Airline Business, 2000 quoted in Jarach, 2001), driving airports to find new sources of income as

mentioned previously. The solution has been to develop the non-aviation related business of airports, or what has been called commercial activities.

Jarach (2001) maintains that airports have evolved to become a more sophisticated market entity described as a "multipoint service-provider firm". As well as offering the traditional air-side business, airports become a commercial hub, where a bundle of services and products are offered to an extended category of target customers (Doganis, 1992). These new potential customers, apart from the traditional air passengers and air transportation employees, are local-communities residents, firms and firms' employees directly or indirectly operating inside the airport area, tourists and aviation enthusiasts. Thus, the service encounter cascade explained by the story of Peter in the previous section is only an example of one of many types of service encounters within an airport.

Jarach (2001) identifies five new areas of activity in connection to this "multipoint service-provider firm" as a complement to the traditional core activities; commercial services, tourist services, meeting and incentive services, logistic services and consulting services. This is shown visually in the following model (*Figure 2.5*).

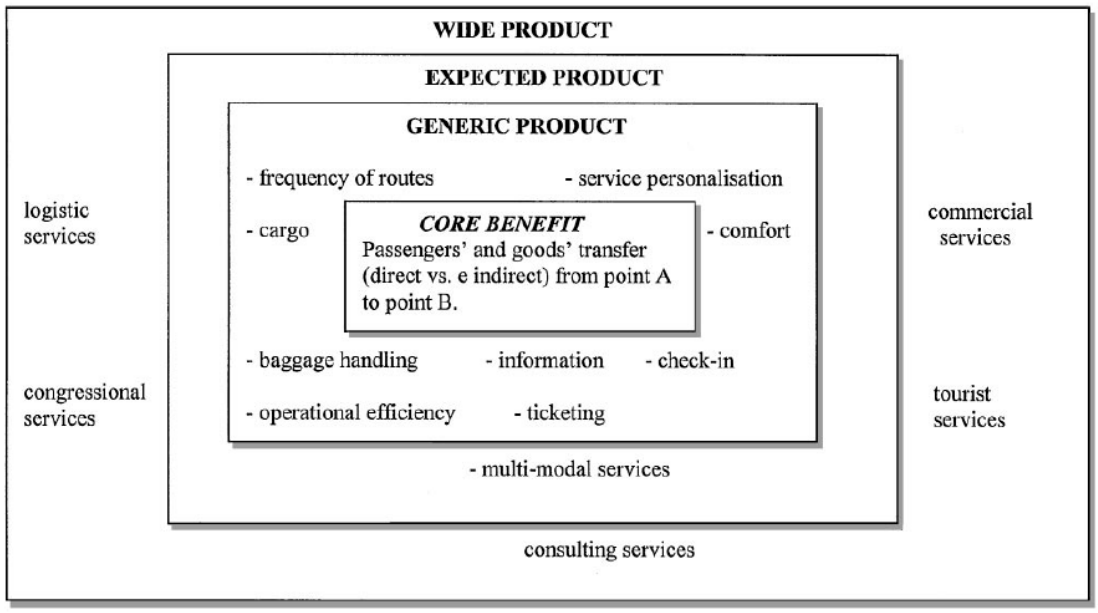

Figure 2.5 The enriched service package for the airport provider
Source: Jarach (2001, p. 122)

Commercial services include all the typical commercial activities within the airport aimed at satisfying customers' needs, mainly impulse ones (Jarach, 2001). Some passengers, like in the case of Peter, plan their airport retail purchases beforehand and over 30 percent of passengers surveyed at Landvetter airport in February 2009 did so (Esplor, 2009). The commercial customers of an airport can be categorized into the following: destination and transit passengers, meeters and greeters, employees of the airport authorities, airlines and other air service providers and finally local residents (Doganis, 1992).

A tourist service is a concept of viewing the airport as a tourism and leisure destination in itself. Aviation enthusiasts are obvious targets of this approach and airports have created viewing places for aviation spotters (Jarach, 2001). By charging a ticket payment, tourist services can be an additional direct source of revenue to airports.

Congressional services are for example conference centres within the terminal building, an extension of the airline lounges concept or a way to reconvert abandoned or underused areas of the terminal buildings (Jarach, 2001). Some airports, such as Landvetter Airport, offer conference centres to its customers, while others have managed to establish partnerships with hotels located close to the airport premises. This way, the airport authorities are able to generate direct income from the end user.

Logistics services focus on developing enriched cargo services that are integrated with customer firm's logistic chains (Jarach, 2001). In addition, cargo facilities can be used for fair and exhibitions increasing the synergy with the congressional business (Jarach, 2001).

Airport operators may offer consulting services to other airports. For example, Keflavik Airport uses BAA, the British Airport Authority of seven UK sites, for consultancy on future operation and performance. Arlanda Airport in Stockholm and Shiphol Airport in Amsterdam are so-called "sister-airports" and they formed a company called ASDC (Arlanda Shiphol Development Company), who's mission is to increase the commercial revenues from Retail and Food&Beverage (Sandberg, 2009). Landvetter Airport cooperates with Arlanda Airport and ASCD as they have the same customers and need to have similar routines.

2.1.3 New Model for Airport Relationships

After reviewing literature on airport relationships and discussing the complexity of who the airport customers really are, the following model has been drawn to conclude on the literature at hand (see *Figure 2.6*). This model is adapted from the models of Jarach (2001) and Francis et al. (2004), presented in *Figures 2.1, 2.2 and 2.4*. Furthermore, adding the ideas of Freathy and O'Connel (2000) and Doganis (1992) determining who the airport customer is.

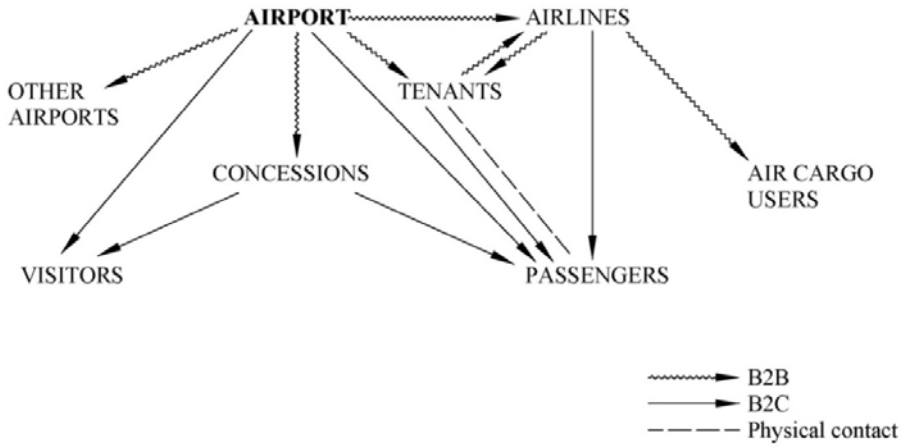

Figure 2.6 New model for Airport Relationships with customer identification

According to this new model of airport relationships (*Figure 2.6*), airports have seven customer groups. The most important customers are the airlines (passenger and cargo). Without them, there would be no airport business (Francis et al., 2004). Traditionally, passengers have been viewed by the airport authorities as part of the airline business (*Figure 2.1*). Today, passengers are a very important direct and indirect customer group.

Passengers are classified by Freathy and O'Connell (2000) into four sub-segments; firstly, domestic v. international v. transit; secondly, short haul v. long haul and scheduled v. non-scheduled; thirdly, business v. pleasure; fourthly, intra EU v. non-intra EU. The direct connection between airports and passengers include any service, facility or commercial activity that the airport provides to passengers at a direct payment charge. There are two other indirect relationships between the airport and the passengers other than via the airline.

Airport concessions are any commercial activities provided by a third party to the passengers. Here the airport charges rents or concession fees to its concessionaries. The passenger might not know whether the parking facilities, shops or restaurants are provided by the airport or a concessionary. When shops or restaurants are branded with a household name it is very likely that they are provided by concessionaries, if not, it is almost impossible to know.

Tenants are businesses that rent airport facilities for their operations on airport sites. Tenants can be divided into three categories. The first category is aviation-related essential operational services (see *Table 2.1*), such as air traffic control. The second category is handling agents and the third is travel agents and tour operators. The first group does not have any direct contact with passengers. Handling agents only have physical contact with passengers via the service encounter. No monetary exchanges take place between handling agents and passengers, since the handling agents get paid by the airlines. Travel agents and tour operators can also be categorised as concessions, but since they have a B2B relation with airlines, they are put within the tenant customer group. In the communication between passengers and check-in personnel there can be a misunderstanding of who is the provider of this service, as was in the story of Peter. It can be the airport itself, the airline directly or a specialised handling agent on behalf of the airline.

Visitors are the customer group that the airport can become increasingly involved in meeting the needs of directly. The primary purpose of visiting an airport is not the shopping (Freathy & O'Connell, 2000). Visitors are categorized into three groups by both Jarach (2001) and Freathy and O'Connel (2000). First, meeters and greeters (weepers and wavers). Second, employees of airport authorities, airlines and other service providers at the airport site. Third, local residents around the airport. Visitors are also an indirect customer group for the airport via concessionaries, as they may do business with any retail or restaurant situated in areas that are not restricted to passengers only. Even employees are able to purchase from the non duty-free shops and restaurants in the terminal area. Car parking is frequently used by visitors and can be provided as mentioned previously by either the airport authority itself or a concession.

An indirect relationship exists between the airport and air cargo users, who are the production or service firms soliciting cargo air services from cargo airlines. Lastly, other airports can be a customer group for airport authorities. Jarach (2001) mentions that consultancy services provided by airport authorities to new airport businesses or existing ones needing to expand or open new infrastructures are becoming more and more popular.

Different marketing actions are needed for the various customer groups as relationships are either B2B or B2C. For the purpose of this study, the passengers will be the customer group focused on when explaining relevant literature from this point forward.

2.2 Airport Physical Evidence and Servicescape

The physical evidence of an organisation includes all aspects of its physical facility (the servicescape) and other tangible communication forms (Zeithaml et al., 2006). The following table shows in more detail the elements of the physical evidence.

Table 2.2 Elements of Physical Evidence

Servicescape	**Other Tangibles**
Facility exterior	Business cards
Exterior design	Stationery
Signage	Billing statements
Parking	Reports
Landscape	Employee dress
Surrounding environment	Uniforms
Facility interior	Brochures
Interior design	Web pages
Equipment	Virtual servicescape
Signage	
Layout	
Air quality/temperature	

Source: Zeithaml et al. (2006, p. 317)

The elements of physical evidence can easily be adapted to an airport without any exclusion of the elements mentioned in the table above. The equipment in the facility interior could be explained in more detail as the check-in counters, self check-in machines, security control equipment, toilets, gate lounges, gate boarding equipment and baggage conveyer belts to give just a few examples. According to Bitner's research (1990), the physical appearance can influence customer satisfaction in a service failure context. For example, the toilet encounter of Peter and his family was good as their availability and appearance was satisfactory.

The physical environment of a service organisation can assume four types of strategic roles in services marketing and management (Bitner, 1992); package, facilitator, socialiser and differentiator (Zeithaml et al., 2006).

The elements of the physical elements are packaged together as one whole service package, similar to a product's package (Bitner, 1992). The servicescape is in essence a visual metaphor for the intangible service provided and should be related to the company brand in order to be successful (Zeithaml et al., 2006). Any advertisements or messages on behalf of the airport should be clearly marked with the airport brand logo. The city of Gothenburg is very well represented in Landvetter aiports with many big signs that say "Gothenburg" or "Welcome to Gothenburg".

The servicescape can serve as a facilitator in helping or obstructing customers and employees to perform their roles within the environment (Bitner, 1992; Zeithaml et al., 2006). "For example, an international air traveller who finds himself in a poorly designed airport with few signs, poor ventilation, and few places to sit or eat will find the experience quite dissatisfying, and employees who work there will probably be unmotivated as well" (Zeithaml et al., 2006: 325).

The design of the servicescape shows both employees and customers what their expected roles, behaviours and relationships should be, is an example of socialization (Zeithaml et al., 2006). By offering a café in the check-in hall, Landvetter airport is signalling to customers (passengers and visitors) that they should relax and have a cup of coffee before departure.

The physical design can differentiate a business from its competitors and indicate which market segment the service is intended for. Landvetter airport offers two business lounges and one conference centre while Keflavik airport offers twice as many stores in a larger space than Landvetter and only one business lounge and no conference centre. This could indicate that Landvetter airport is trying to target business passengers especially and Keflavik airport is targeting leisure passengers mainly.

2.3 Airport Service Quality, Customer Satisfaction and Loyalty

In order to understand service quality, the three characteristics of services – intangibility, heterogeneity and inseparability – must be acknowledged (Parasuruman, Zeithaml & Berry, 1985). The services performed in an airport are mostly intangible. They can vary between service personnel making them heterogeneous and the production and consumption is inseparable making quality of the service difficult to manage. According to Grönroos (1984), two types of service quality exist; *technical quality*, which is what the customer receives from the service, and *functional quality*, which is how the service is delivered.

Parasuruman et al. (1985) propose the well known service quality model or what has come to be known as the gaps-model. In this model, there are five gaps that the service firm must ensure are all closed in order to guarantee service quality. Gaps 1-4 are provider gaps and include 1) not knowing what customers expect, 2) not selecting the right service designs and standards, 3) not delivering to service design and standards, and 4) not matching performance to promises (Zeithaml et al., 2006). The fifth gap is the customer gap, which is the difference between expectations and perceptions of customers.

In the SERVQUAL study conducted by Parasuruman et al. (1988), five elements were identified as the underlying dimensions of service quality; tangibles, reliability, responsiveness, assurance and empathy. Tangibles are the physical facilities, equipment and appearance of employees. Reliability is the ability to perform the promised service in a dependable and accurate manner. Responsiveness is the willingness to help customers and offer speedy service. Assurance is the ability of employees to inspire trust and confidence as well as being knowledgeable and courteous. Empathy is the caring, individualised attention provided by the firm to its customers.

The service quality model (Figure 2.7) shows that word of mouth communications, personal needs and past experience influence the expectations customers will have about the service. Zeithaml et al. (2006) maintain that quality and satisfaction are sometimes viewed as the same concept, but satisfaction is a broader concept. Personal factors, such as personal needs and past experience influence customer satisfaction (Zeithaml et al., 2006).

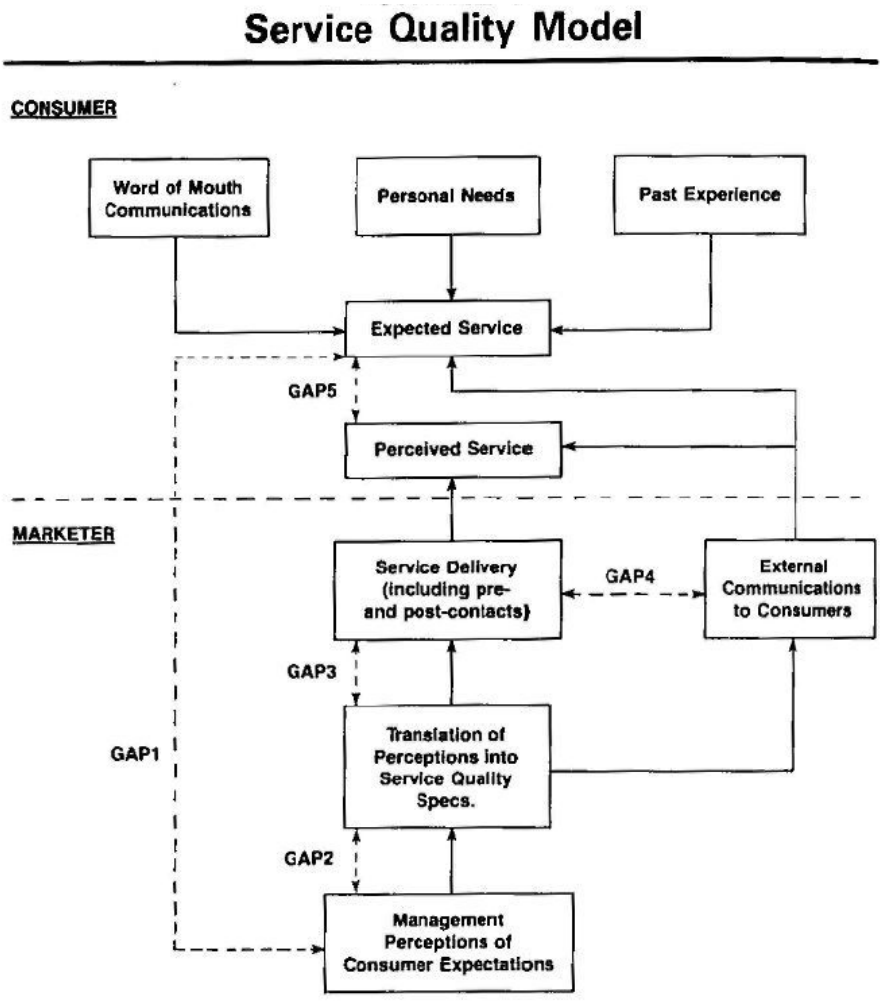

Figure 2.7 Gaps Model of Service Quality
Source: Parasuruman et al. (1985, p. 44)

A study by Rhoades, Waguespack and Young (2000) aimed at developing a quality index for US airports identified the following factors to be essential in airport quality (see *Table 2.3*). It was airport operators and consultants that were objects of the study. The results of the Rhoades et al. (2000) study indicated that parking, restrooms and baggage handling facilities were most important when looking at the average weighting. Food and beverage, retail and duty free shops emerged as important factors after doing a factor analysis.

Table 2.3 Key factors in airport quality

Customer	**Factor**		
Passengers	Connecting flights Efficiency/speed of check-in Parking Frequency/availability of flights and destinations	Baggage delivery Ground transportation Shopping/retail service	Passport/customs Special services Food/beverage
Airport administration	Capacity	Design	Services
Airline/air cargo	Capacity Runway Terminal Services	Fees	Services
Employee/tenants	Parking	Location	Services

Source: Rhoades et al. (2000, p. 259)

According to Fodness and Murray (2007), airport quality literature and research differs from the mainstream service quality perspective (e.g. gap theory model) by focusing on quality at the attribute level and discussing with stakeholders such as airport and airline operators, consultants, regulators and travel industry managers rather than discussing with passengers. The previously described study by Rhoades et al. (2000) fits to this description. The amount of conceptual and empirical work on passengers' perceptions of airport service quality is very limited (Fodness & Murray, 2007).

Within the airport industry, airport service quality and passenger satisfaction is measured in the AETRA customer satisfaction survey, conducted by Airports Council International (ACI) and the International Air Transport Association (IATA) (Fodness & Murray, 2007). A similar survey is conducted by ACI on a quarterly basis in over 100 airports that are members of ACI (ACI 2008). These ongoing surveys provide airport managers with useful lists of attributes, "but do not represent service quality as the concept is understood in marketing and services research and literature"(Fodness & Murray, 2007: 494).

The study of Fodness and Murray (2007) aims to provide a conceptual model of service quality in airports by empirically investigating the expectations of passengers in the industry. The following figure (*Figure 2.8*) shows their preliminary conceptual model for airport

service quality. It shows that airport service quality is a function of the servicescape, service personnel and services. The results suggest that passengers' expectations of airport service quality are a multidimensional, hierarchical construct, which includes three key dimensions: function, interaction and diversion.

Figure 2.8 Preliminary conceptual model for airport service quality
Source: Fodness and Murray (2007, p. 497)

Many researchers such as Truong and Foster (2006) perceive satisfaction to be the same as service quality. Oliver (1980) proposes that consumer satisfaction is a function of expectation and expectancy disconfirmation. Specifically, expectations create a frame of reference that a comparative judgment can be based on. When outcomes are worse than expected and rated below this reference point, a negative disconfirmation is created. Comparatively, outcomes that are better than expected and rated above the reference point are a positive disconfirmation. Thus, when outcomes are just as expected and rated precisely on the reference point, confirmation or zero disconfirmation is created (Oliver, 1980; Oliver, 1981). Churchill and Surprenant (1982) further investigate the confirmation/disconfirmation paradigm and suggest that it includes four constructs: expectations, performance, disconfirmation and satisfaction.

Satisfaction is often measured as the gap between expectations to a product or, in the case of airports, a service, and how the actual performance of the service corresponds to these expectations. That is, satisfaction is an evaluation of a service and is associated with to what extent a consumer likes or dislikes a service (Baker & Crompton, 2000; Bosque & Martín, 2008; Truong & Foster, 2006; Zeithaml et al., 2009; Parasuraman et al., 1985). This is in accordance with Bosque & Martín (2008, p. 553) who define satisfaction as "the consumer's response to the congruence between performance and comparison standard".

As services are to some extent produced by consumers and often consumed together with other people, it is relevant to consider co-producers as a relevant factor influencing satisfaction of a service. Both co-consumers' (other passengers) and service providers' behavior (handling agents, airlines, airport authorities, concessionaries), emotions, involvement and friendliness affect the experience of the consumer in question and satisfaction can, moreover, be influenced by family and friends who tell about past

experiences and events. Selective memory can also change the perception of satisfaction (Zeithaml et al., 2006; Baker & Crompton, 2000). In our story, Peter can decide to selectively forget about the unsatisfying encounter at check-in and security control and focus instead on the satisfying ones of the toilet, camera purchase and sitting at café with family. Thus, creating an overall satisfaction of the airport experience, which is quite different from the individual encounters.

Research has shown that there is a positive correlation between satisfaction and loyalty (Anderson, Fornell & Lehmann, 1994; Heskett et al., 1994; Baker & Crompton, 2000; Zeithaml et al., 2006; Bosque & Martín, 2008). Figure 2.9 shows the relationship in a linear way where loyalty is measured as the retention rate and satisfaction is measured objectively on a 1 to 5 scale as indicated below.

Figure 2.9 The relationship between customer satisfaction and loyalty
Source: Heskett et al. (1994, p. 167)

Heskett et al. (1994) also maintain there is a positive relationship between loyalty and profit. Findings from Anderson et al. (1994) also show a positive impact of quality on customer satisfaction and, in turn, on profitability.

2.4 Importance-Performance model

The Importance-Performance model measures satisfaction as performance in relation to importance as implied by the name of it. Martilla and James (1977, p. 77) stated that empirical research by Myers and Alpers in 1968 and Swan and Coombs in 1976 has shown that "consumer satisfaction is a function of both expectations related to certain important

attributes and judgments of attribute performance". Thus, in the Important-Performance model, the measurement of expectations has taken the meaning of importance. A four-point semantic differential scale is used and the mean for the importance and performance ratings are calculated and plotted into a two-dimensional grid, making interpretation of the results easy. Martilla and James recognize that median values are better approximation of central tendency than mean values because a true interval scale does not exist using a this type of scale. However, if the two measures appear to be convincingly close it is more relevant to use the means because of the additional information they contain.

According to Keyt, Yavas and Riecken (1994, p. 35), "importance-performance analysis has become a popular managerial tool used to identify strengths and weaknesses of brands, products, services and retail establishments". Thus, the use of the model has extended beyond measuring consumer satisfaction. Keyt, Yavas and Riecken (1994) propose a modification to the traditional importance-performance analysis of Martilla and James. They claim it has two weaknesses; it ignores performance comparison with competitors and does not recognize what determines an attribute. Moreover, Matzler et al. (2004) question the applicability of the importance-performance analysis and its managerial recommendations by introducing the three factor theory of customer satisfaction.

3 THESIS MODEL AND HYPOTHESES

3.1 Research Questions

With deregulation and increased competition, airports are forced into increased commercialisation, in order to stay competitive. Increased pressure from airlines to minimize the airport fees has made commercial income more important to airport operation. Therefore, airports seek to find ways to increase its direct relationship with passengers in order to generate new streams of revenues. One possible avenue is to offer an airport membership program to its passengers, providing them a new revenue source as well as enhancing customer loyalty.

The following research question has been formulated for this research:

What factors influence the willingness to pay a fee for an airport loyalty program?

Three sub-questions have been developed to simplify the structure of the study.

1. *What is the impact of service quality on airport satisfaction?*
2. *What is the impact of passengers' past experience on airport satisfaction and loyalty?*
3. *What is the impact of passengers' airport satisfaction on loyalty?*
4. *What is the impact of travel purpose on satisfaction and loyalty?*

3.2 Conceptual Model

An illustration of the literature review in *Figure 3.1* should demonstrate the link between those theories discussed in chapter two that are relevant for answering the research questions identified above.

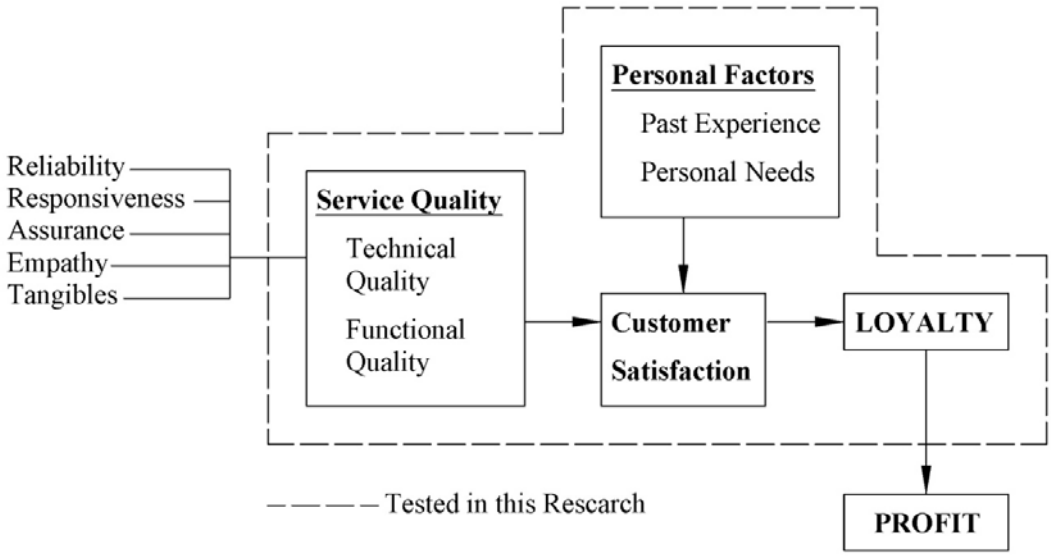

Figure 3.1 Conceptual model of underlying theories

3.3 Research Model

From the conceptual model and research questions, a research model has been developed as shown in *Figure 3.1*.

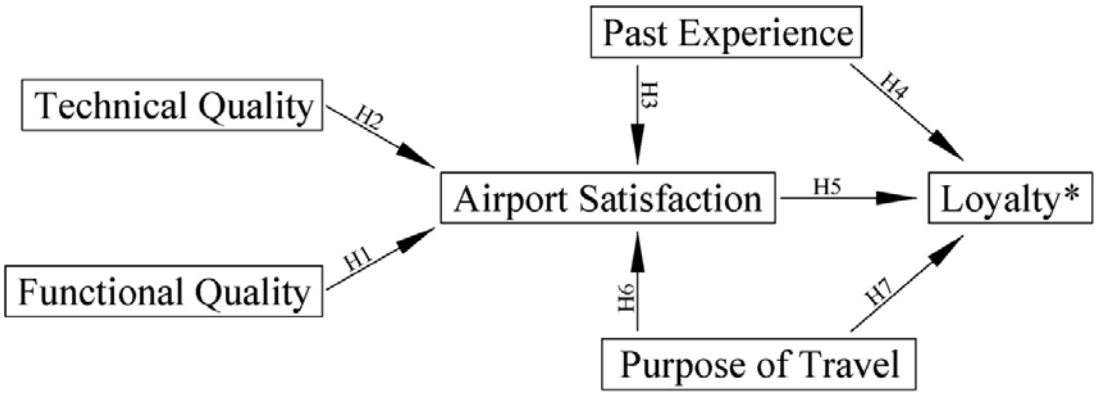

Figure 3.1 Research Model

3.4 Working Hypotheses

From the research model in *Figure 3.1* the following seven hypotheses have been derived, which the survey aims to test.

Functional quality is how the service is delivered (Grönroos, 1984). Satisfaction with the attitude of check-in and security control personnel should measure functional quality. Respondents are also asked to rate the importance of previous attributes. By collecting ratings of satisfaction and importance, it is possible to do an important performance analysis on the service qualities tested (Martilla & James, 1977).

H1	*Satisfaction of functional quality correlates with overall airport satisfaction. Functional quality being measured as the quality of service personnel.*

Technical quality is what the customer receives from the service (Grönroos, 1984). In part four of the research survey, respondents are asked to rate how satisfied they are with the following technical quality attributes: product range in the airport shops, variety of restaurants and cafés in airport, appearance of toilets, parking facilities at the airport, ability to work (i.e. access to computers, wireless internet), speed of checking-in and speed of security control. The basis for choosing these attributes come partly from Rhoades et al.

(2000), where parking, restrooms, food and beverage, retail and duty free shops emerged as the most important factors. Thus the following hypothesis was formulated.

H2	*Satisfaction of technical quality correlates with overall airport satisfaction. Technical quality being measured as the quality of airport shops, variety of restaurants and cafés and ability to work at the airport, security control speed, check-in speed, parking facilities and toilets.*

These functional and technical quality attributes also represent all but one Parasuruman et al.'s (1988) service dimensions. Empathy can be measured via product range in airport shops and variety of restaurants and cafés in the airport. Tangibles can be measured via the parking facilities and ability to work. Responsiveness can be measured via speed of checking-in and security control. Assurance can be measured via attitude of check-in and security control personnel. This research will not test this particularly.

Zeithaml et al. (2006) and Parasuruman et al. (1985) maintain that personal factors, such as personal needs and past experience are among those that influence customer satisfaction. Past experience is measured by asking about travel frequency and personal needs are measured by asking about purpose of travel (business or leisure) in part one of the survey. Many researchers maintain that satisfaction influences loyalty (Anderson, Fornell & Lehmann, 1994; Heskett et al., 1994; Baker & Crompton, 2000; Zeithaml et al., 2006; Bosque & Martín, 2008). This study maintains that there is a direct link from past experience to loyalty. Thus the following two hypotheses were formulated.

H3	*Past experience correlates with overall airport satisfaction. Past experience being measured as passengers that travel frequently (11+ times/year).*
H4	*Past experience correlates positively with the interest in paying a membership fee for an airport loyalty program. Past experience being measured as passengers that travel frequently (11+ times/year).*

This research will also test satisfaction influencing loyalty, while loyalty is not measured as the retention rate, but the interest in paying a fee for an airport loyalty program. Thus the following hypothesis was formulated.

H5	*Satisfaction correlates positively with the interest in paying a membership fee for an airport loyalty program.*

Personal factors can influence satisfaction (Zeithaml et al., 2006, Parasuruman et al., 1985). In this study, purpose of travel is regarded as a personal factor. The following two hypotheses have been formulated,

H6	*Purpose of travel correlates with overall airport satisfaction. Purpose of travel being measured as business or leisure.*
H7	*Purpose of travel correlates positively with the interest in paying a membership fee for an airport loyalty program. Purpose of travel being measured as business or leisure.*

4 RESEARCH METHODOLOGY

4.1 Research Method

The design of this research is primarily a cross-sectional descriptive one. Yet, it also has an exploratory and a comparative feature. Cross-sectional design is when more than one case of data is collected at a single point in time to collect a body of quantifiable data (Bryman & Bell, 2007). The purpose of a descriptive design is to describe something about a specific target sample (Hair et al., 2006). The exploratory design is used to collect secondary or primary data, followed by interpreting the collected data using an unstructured design (Hair et al., 2006). The comparative design of this study lies in the use of two airports for data collection and comparison of results.

Research methods can be divided into primary and secondary. Methods that are primary, are those where data is collected by the researcher himself for the purpose of the research, whereas, secondary research uses data gathered by other researchers or business organizations (Bryman & Bell, 2007). This study will use both techniques.

Primary research can be of both qualitative and quantitative nature. Quantitative research is usually a deductive approach where data can be quantified in its collection and analysis, whereas qualitative research is usually an inductive approach where data is collected in words and not quantified (Bryman & Bell, 2007; Hair et al., 2006). While it is useful to differentiate these two research methods, the distinction between them is not mutually exclusive. Researchers even maintain that the two methods, qualitative and quantitative, can be combined within a research project (Bryman & Bell, 2007). This study is primarily a quantitative research as the use of a survey with primarily fixed choice questions to quantify the data collected for analysis and hypothesis testing.

It is possible to use qualitative research methods in exploratory studies to achieve initial insights to research problems (Hair et al., 2006). This is achieved by collecting data from small sample sizes via interviews or observations. Even though data collection in qualitative research can be conducted in a short time frame, it might be difficult to draw speedy conclusions from the data. According to Hair et al. (2006) it is difficult to generalize the results of qualitative research methods to the whole population. Yet, this research method is important in understanding and solving problems in business, especially in the stages of initial discovery, marketplace, consumer behaviour and decision-making. This study makes use of such qualitative exploratory measures to discover the initial research problem, outlined in chapter three of this study. By interviewing professionals in both Landvetter and Keflavik airports, a problem was identified and research question formulated.

Secondary research can be easier than primary in terms of how much time it takes to collect the data. If the researcher has full access to relevant data, this method is very useful. On the other hand, secondary data can be very expensive and difficult to gain company contacts for access (Bryman & Bell, 2007). This study makes use of passenger statistics from airport

websites, which was fairly easy to collect. A relationship with business development management and marketing management at both Landvetter and Keflavik airport has been established for this study. Contacts in both airports have been willing to disclose confidential research made by independent parties. Keflavik airport has given access to the ACI "Airport Service Quality Survey - Benchmarking the global airport industry". Landvetter airport has disclosed an extensive research done by Research Solutions for Airports (RSA) on behalf of Goteborg-Landvetter airport (GOT), January 2008 (survey in June 2007). In addition, passenger statistics from 2002 and a passenger survey done in February 2009 for a new marketing campaign "Airport Delight" has been released to the researcher. All this secondary data is very useful in confirming the reliability of the primary research in this study as results of background variables can be checked in comparison.

4.2 Execution of Research

The layout of Keflavik and Landvetter airports are very different. *Figure A2.1* (in Appendix 2) shows the layout of the departure area after security control in Landvetter airport. All shops and restaurants are located along the gate corridor of the international terminal. The airport is small and passengers going to gates 18, 19, 20 and 21 must pass the shopping and restaurants. Those going to gate 16 can go straight to their gate without passing any shops or restaurants and those going to gate 17 pass only half the shops and restaurants. Since the airport is small, passengers can easily browse through all the shops and restaurants to see what offerings appeal to them, if any.

In contrast, the layout of Keflavik airport has all major shopping, services and restaurants located in one main area directly after security control and before passengers go to the gates (see *Figure A2.2* in Appendix 2). Thus, all departing passengers pass through the commercial area of Keflavik. This area is so concentrated that one can stand in the middle of it and while turning full circle be able to see all the offerings. Then passengers walk to the corridor with Non-Schengen gates 1-6. In the south end, there are Non-Schengen gates 7-12, along with shops, café, toilets, internet and information desk. In this area the business lounge is also located. The passenger flow is thus controlled in such a way that departure passengers willing to go to the lounge must go through the main commercial area to reach it. On the other hand, transit passengers seeking the lounge need never enter the main commercial area.

4.3 Sampling Method

Landvetter airport served just over 3 million passengers in 2008 and Keflavik just below 2 million in the same year as can be seen in *Figure 5.1*. This study does not have the time and resources to do a longitudinal survey of passengers. Thus sampling of passengers during one week in each location will need to suffice in this case (Hair et al., 2006).

4.3.1 Target Population

This study will undertake to sample the population of international passengers departing from Keflavik airport on Tuesday and Wednesday in week 16 and Landvetter airport on Thursday

in week 18 and Tuesday-Friday in week 19. According to Bryman and Bell (2007), the population is the universe of units where the sample is taken from. All passengers departing on the aforementioned days constitute the population. The researcher does not have access to a list of all units in the population so it is not possible to make a sampling frame. Access to passengers on these days is provided by the authorities at both airports.

4.3.2 Sampling Criteria

To be included in the sampling frame passengers need to be at least 16 years of age and have entered the international departure terminal. The best sampling method is probability sampling because it allows the researcher to administer tests of statistical significance that allow inferences to be made about the population from which the sample was selected (Bryman and Bell, 2007). In order to use probability sampling in this study, passengers would need to be approached systematically as they enter the international terminal, just after security control. In this study, the nature of some questions requires the respondents to have experienced the facilities and services provided by the airport. Therefore, probability sampling of passengers as they enter the terminal is out of question.

4.3.3 Sampling Process

Flight departures at both Landvetter and Keflavik airports are concentrated mainly in two time periods of the day. This is early morning between 6:20 and 8:00 and late afternoon between 16:00 and 18:00. Time is of crucial essence since passengers generally want to spend as little time as possible in the airports. As mentioned above, respondents must have experienced the facilities and services in the international terminal area before being approached for inclusion in the study. When deciding what weekday and time of day was best for this study, both convenience for the researcher personally and maximum amount of passenger traffic flows were taken into consideration. Professionals at both airports were conferred with in determining which days and time of day had good amount of traffic flow.

Upon arrival at the airport, departure times and gates were noted by looking at the monitors in the departure terminal. The researcher aimed for situating herself in the gate area about 45-50 minutes prior to departure. Generally boarding begins about 30 minutes prior to departure. This gives the researcher 15-20 minutes to sample and administer the survey to respondents at each gate. There is no point in arriving sooner at the gate area since very few if any at all would be located there. The following tables (*Table 4.1* and *Table 4.2*) provide an overview of what gates or other locations the researcher used in sampling the passengers, essentially an interview plan for administering the self-completion questionnaire to potential respondents.

Table 4.1 Interview Plan for Landvetter Airport

Landvetter

	Gates	Other location	Destinations
Thursday afternoon 31-04-2009	16, 18, 19		HEL, LYS, AAR, BRU, Chania (charter)
Tuesday afternoon 05-05-2009	16, 19	Information desk	FRA, OSL, HEL
Wednesday morning 06-05-2009	16, 19	The Dubliner	CPH, MAN, FRA, CDG, AMS
Thursday morning 07-05-2009	16, 17, 18, 19, 20, 21		AMS, MUC, VIE, LYS, CDG, FRA, LHR, OSL, CPH, MAN, Greece (charter)
Thursday afternoon 07-05-2009	16, 18, 19, 20		LHR, HEL, FRA, OSL,
Friday morning 08-05-2009	16, 17, 18, 19, 20, 21		VIE, FRA, DUS, CPH, LHR, BHX, Majorca (charter)

Table 4.2 Interview Plan for Keflavik Airport

Keflavik

	Gates	Other location	Destinations
Tuesday afternoon 14.05.2009	27, 28, 29	Business Lounge	JFK, BOS, ORL,
Wednesday morning 15.05.2009		Waiting area by shops and restaurants, Business Lounge	LHR, ARN, HEL, OSL, PAR
Wednesday afternoon 15.05.2009	27, 28, 29, 30	Waiting area by shops and restaurants, Business Lounge	JFK, BOS, ORL, TOR, OSL, LHR
Period of 15-31.05.2009		Business Lounge	USA/EUR

The sampling method should be classified as quota sampling, which is one type of non-probability sampling. It is claimed to be almost as good as probability sampling by some practitioners (Bryman & Bell, 2007). The aim of quota sampling is to produce a sample that is representative of the population. However, the sampling of individual units of the population is not done in a random manner because the final selection of people to be included in the study is in the hands of the interviewer (Bryman & Bell, 2007).

Bryman and Bell (2007) mention a few criticisms of the quota sampling method that are relevant to this study. Since the choice of respondents is up to the interviewer some practitioners argue that a quota sample cannot be representative. The passengers located at the gates in the time of questioning may not be typical of the population. The interviewer is able to make judgements about the people when deciding whether or not to approach a person. Calculating the standard error of the mean from a quota sample is not allowed. This is because when using a non-random method of sampling, calculating the range of possible values of a population is impossible. Albeit, computing the standard error from the mean is frequently done for a quota sample.

Advantages to using a quota sample include it being cheaper and quicker than probability sampling and there is no need to keep calling back on those not available and thus easier to manage (Bryman & Bell, 2007).

4.3.4 Non-Response

Some passengers that were approached and asked if they wanted to participate in this research by answering a few questions about the airport did not want to fill out the questionnaire. The reasons were mainly that respondents were too tired, it was too early in the morning, too busy working, reading or chatting with friends or didn't have time because it was too close to boarding. The following tables show the non-response rates for both Landvetter and Keflavik airports. The rate is very similar, 18% for Landvetter and 15% for Keflavik airport.

Table 4.3 Categorization of non-responses at Landvetter Airport

	Responses	**Non-Responses**	**Total**
Thursday afternoon 31-04-2009	20	4	24
Tuesday afternoon 05-05-2009	4	2	6
Wednesday morning 06-05-2009	33	9	42
Thursday morning 07-05-2009	75	17	92
Thursday afternoon 07-05-2009	36	6	42
Friday morning 08-05-2009	32	7	39
Total Landvetter	200	45	245
Response rate Landvetter	**82%**	**18%**	

Table 4.4 Categorization of non-responses at Keflavik Airport

	Responses	**Non-Responses**	**Total**
Tuesday afternoon 14.05.2009	29	2	31
Wednesday morning 15.05.2009	27	13	40
Wednesday afternoon 15.05.2009	36	4	40
Business Lounge 15-31.05.2009	13	?	13
Total Keflavik	105	19	124
Response rate Keflavik	**85%**	**15%**	

4.4 Interview Development

After reviewing relevant literature described in the chapter two and communicating with managers at both Landvetter and Keflavik airports in meetings and via e-mail, a list of questions were drawn up.

4.4.1 Data collection method

A structured interview can be made in order to collect both quantifiable and qualitative data (Bryman & Bell, 2007). The goal of a structured interview is to standardize the interviewing of respondents so that differences between them will be minimized. Most structured interviews contain mainly closed-ended or fixed choice questions, just like self-completion

questionnaires. These types of questions facilitate the data processing. On the other hand they might be too guiding in terms of possible answers.

This study will use both closed-ended quantifiable data and open-ended questions that will be kept in its original format to gain insight into the research question and hypotheses. By using open-ended questions both intra- and inter-interviewer variability is increased (Bryman & Bell, 2007). Contrary to this, self-completion questionnaires are absent of interviewer effects. They are also quicker and cheaper to administer.

After conducting two pilot tests, described in the next part, the researcher decided that interviewing all respondents personally would be too time consuming. The questionnaire would be the same, just not the way of administering it. By having respondents fill out the questionnaire themselves the response time usually decreased as respondents could complete the questionnaire at their own speed. There are some disadvantages to self-completion questionnaires. For example, the researcher cannot probe or collect additional data, cannot explain to respondents when they don't understand and there is greater risk of missing data as respondents might skip questions they don't understand (Bryman & Bell, 2007). In this study, the researcher encouraged respondents to ask if they were in doubt with something to reduce the risk of missing data and ensure that respondents understood the questions correctly.

4.4.2 Pilot Study

According to Bryman and Bell (2007), piloting questions to a group representative of the sample chosen for the study is desirable. By doing this the researcher is able to for example identify questions that are unclear, how much instruction is needed, questions where respondents reply in the same way and how well the questions flow. In this study, a pilot was administered on two separate occasions in Landvetter airport. In both cases the researcher performed a structured interview with targeted passengers located in the departure lounge in the gate areas. In the first pilot study, which was administered on a Tuesday afternoon in week 14, four responses were collected in the time of two hours. During the first hour, the researcher observed the flow of passengers in the departure terminal. The researcher observed that the best location for administering the interviews was in the gate areas as those passengers gathered at the gates have experienced the airport facilities and services as much as they desire in the time they have at their disposal. In the second hour, four passengers at one of the gates were approached (one at a time) and asked if they wanted to answer questions about the airport for a master degree research project. All those approached were willing to answer. Each interview took about ten minutes to complete. This first pilot study resulted in some questions being omitted and some answer options added.

After consulting with a professor and looking at the questions more closely in connection to the theory a few questions were added. The second pilot study was administered on a Friday afternoon in week 14. The aim was to see how many responses could be collected in the time of two hours and again test the questions. Seven responses were collected and again the average response time was 10 minutes. After this second pre-test and consultancy with

professionals at Keflavik airport two questions were added and some answer options added for extra clarification. Thus, both pilot studies contributed to this study with new ideas that increase the quality of the survey as well as testing and addressing the issue of validity.

4.4.3 The questionnaire

The questionnaire is divided into six parts. In Appendix 1, a copy of the questionnaire can be found in all languages used, English, Swedish and Icelandic. A description of the different parts follows here.

In the first part, current loyalty and frequency of travelling by air as well as travel purpose are revealed. All questions in this part are closed-ended except when passengers belong to an airline loyalty program they are asked to write which airline (an open-ended question). This question will be coded afterwards because the researcher cannot know beforehand which airlines passengers are most frequently members of.

The issue of time and method of check-in is studied in part two. The questions are all closed-ended in this part. The third part focuses on commercial activities, such as whether or not passengers purchase something at the airport and two open questions on what passengers suggest could be improved in the product or service offerings of the airport. On the top of the second page there are three questions which belong to this commercial activities part because they test how responsive passengers are to special prices, discounts and free meals in exchange for coming early to the airport before departure.

Satisfaction and importance of experience with servicescape, personnel and services at the airport is the essence of the fourth part. Here the passengers are asked to rate their satisfaction and importance of nine different aspects on a seven-point semantic differential scale, as well as asking what the overall satisfaction rate is for the airport in question. This question takes into consideration the research of Martilla and James (1977) and the research by Parasuruman et al. (1985), comparing customers' expectations (or importance in this case) with the actual performance (or satisfaction in this case).

The fifth part deals with a suggested airport loyalty program. Passengers are asked whether they would be interested in being a member of an airport membership program at the airport in question with access to a business lounge, check-in priority, security-check priority, discounts and extra services in exchange for an annual fee. A seven-point semantic differential scale is used again in this part for the rating of importance.

The sixth part asks for background information from the respondents; gender, age, passenger type, destination, flight type and nationality.

4.4.4 Measurement Scales

By grading expectations (importance) and performance (satisfaction) on a seven-point scale, the data collected can be used in testing correlations for the hypotheses of this study.

Calculating means for an ordinal scale like the one used in the questionnaire is not a statistically correct thing to do. It treats the ordinal scale data as it was an interval scale with equal intervals. The implications of ordinal data are best described by the use of the mode, median and percentile along with basic contingency tables (Stevens, 1946; Martilla & Carvey, 1975; Bryman & Bell, 2007, Hair et al., 2006)). According to Stevens (1946), the researcher should proceed cautiously with statistics when only the rank order is known. However, if the results for the median and the mean are reasonably close, the researcher may want to use the mean because of the additional information it contains (Martilla & James, 1977). As tests of significance will not be used in this paper, misrepresentations that might occur due to minor violations of the interval scale assumption are unlikely to be serious (Martilla & Carvey, 1975).

4.5 Communication of the Empirical Data

The data collected from the surveys in Landvetter and Keflavik airports were analyzed using SPSS statistical software. The data was registered into Excel, due to initial problems with the SPSS software. By inputting the data into Excel, a backup is created. When the data had been converted over to SPSS, a case summary report was generated to see the overall result of all questions (see Appendix 3). Excel is used again to format all tables and graphs.

Frequency tables were generated for all background questions to compare Landvetter with Keflavik. The semantic differential scale (treated as an ordinal scale in this study) was used in parts four and five of the questionnaire. Descriptive statistics revealing the mean value and standard deviation of passenger satisfaction/importance as well as importance rating of service attributes in loyalty programs were produced. In order to find correlations between the variables that influence testing the hypotheses, Spearman´s rho (ρ), was used. In such a bivariate analysis, Spearman´s rho (ρ), is used to investigate the correlation between two ordinal variables, such as the semantic differential scale in this study (Bryman & Bell, 2007).

4.6 Methodology Evaluation and Limitations

Validity is concerned with the truthfulness of the conclusions produced from research and reliability is concerned with the repeatability of the study results. Validity and reliability can be ensured by careful data collection, analysis and presentation of the research results (Bryman & Bell, 2007).

There are some limitations to this study. The sample size is only 305, with and uneven distribution between the two airports sampled as 200 samples were collected at Landvetter airport and 105 at Keflavik airport. The number of respondents might not be enough for representing the population of the airports. The choice of sampling these two airports in particular can also limit this study. The issue of generalisability comes into concern here as the results may not be representative of any other airports than those sampled. If more airports of similar size in Europe would have been used, then the results could be representative of European airports of that size. Analysis and conclusions are based on the

data collected from this sample, thus it is not possible to generalise the findings to all airports, but rather merely for Keflavik and Landvetter airports. However, it is possible to give recommendations to the management of the two airports as well as suggestions for further research.

Respondents might misunderstand questions in the survey and thus produce invalid answers. As the questionnaire is translated into two languages, Icelandic and Swedish, from the original English, an error of translation could have been made.

The questionnaire is very long producing some incomplete responses from some respondents. Time is of crucial essence in airports. Passengers want to spend as little time as possible in the airport. Thus, some passengers might willingly come to the gate at final call. This study would never be able to reach these passengers and their responses might be different from the ones who come early to the gate and were targets of this study.

There is a chance of acquiescence response bias when respondents answer a set of questions in the same way, e.g. in parts 4 and 5 using the 7-point scale, possibly always choosing the middle number.

5 STUDY FINDINGS

A background analysis and comparison of the two airports, Keflavik and Landvetter, will be made. Then this chapter will focus on explaining the results of the survey conducted in Landvetter and Keflavik Airports. First, the respondents' characteristics are described using the benchmark results presented in the beginning of the chapter. Followed by, the results of the main questions in the survey being presented according to the five chapters of the questionnaire discussed in the previous chapter. Finally, a brief discussion of general comments respondents wrote in the questionnaire.

5.1 Airport Comparison – Keflavik and Landvetter

Two small airports were chosen for this study for the sake of interest and convenience. Interest of comparing similar size airports who serve different needs within a country that is, one is predominantly international and the other is part domestic. Convenience, due to easy access for the study.

Contact was made with the director of business development at Keflavik airport. The director provided access to the airport passengers and shared statistics from ACI – Airport Service Quality customer satisfaction survey conducted in over 100 airports on a quarterly basis. After discussing with her about which research issues would be of benefit for Keflavik, it became clear that a benchmark of Keflavik airport to other airports of similar size in regards to an analysis of commercial offerings and passenger purchasing motives was interesting to the management of Keflavik airport (Jóhannsdóttir, 2008).

Access to Landvetter airport was established with the director of marketing via initial communication with the director of route development. After analyzing the passenger volume of both Keflavik and Landvetter, a decision was made to include these two airports in a comparison study. *Figure 5.1* shows the passenger volume for international passengers in Keflavik and Landvetter airports. Keflavik mainly serves international flights, but 27 percent of Landvetter's passengers are domestic, with a total of 4,3 million passengers in 2008 (airport website). Therefore, just over 3 million passengers are international at Landvetter and just under 2 million in Keflavik for the year 2008. Both airports are in the below 5 million passenger category of airports.

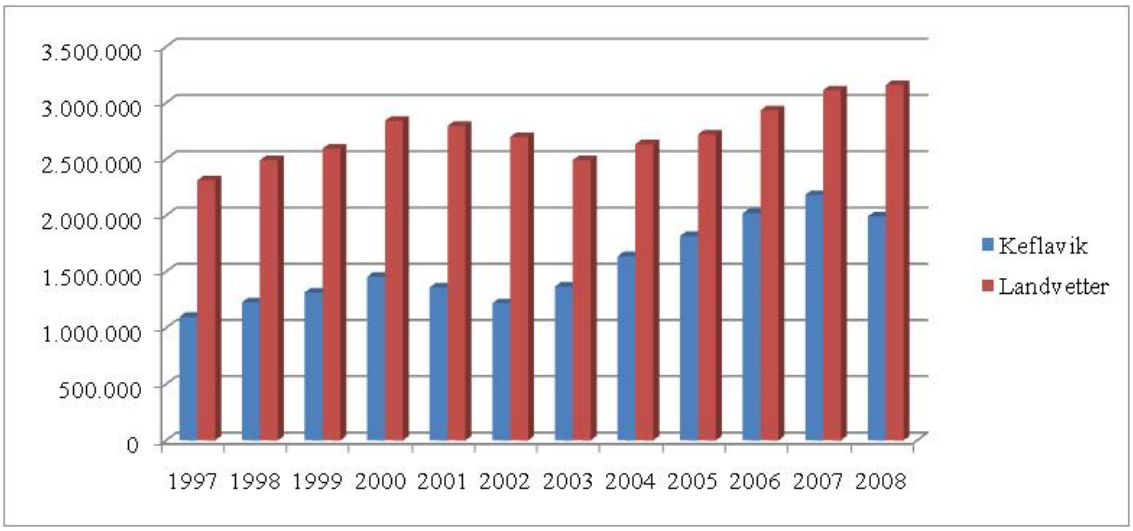

Figure 5.1 Comparison of international passenger numbers from 1997-2008 for Landvetter and Keflavik
Source: Airport websites

There are some differences in the two airports. Keflavik is a hub for Icelandair, which operates from Europe to USA via Keflavik, bringing many transit passengers to the airport. According to Appold and Kasarda (2006), transfer passengers have enforced free time and are more likely than others to spend money in terminal shops and restaurants. Keflavik is basically the only choice of airport for international flights. Currently, there are direct flights from Akureyri to Copenhagen and from Reykjavik to Greenland and the Faroe Islands (AirIceland, 2009; IcelandExpress, 2009). In comparison, Landvetter competes geographically with Copenhagen, Oslo, Stockholm and Malmö for international passengers, not to mention Gothenburg City airport.

The following table shows a comparison of the following demographics: gender, age, trip purpose, how many times per year travelled and waiting time before departure (time from arrival to airport until departure). Statistics are not from same source but are reliable because they come from unbiased authorities that conducted research at Keflavik airport and Landvetter airport. The international airport organization Airports Council International (ACI) conducts an Airport Service Quality Survey on a quarterly basis in the member airports that request it. The report for Keflavik is benchmarked against other airports in ACI with less than 5 million passengers, all ACI airports in Europe and the industry average. An independent research organisation, Research Solutions for Airports (RSA), conducted an extensive survey of 3,485 passengers across seven days in June 2007 (RSA, 2008). With the permission of Keflavik and Landvetter airports respectively, the following statistics are revealed. Despite the fact that the statistics do not come from the same sources, they will be compared for the purpose of this study. This secondary source of demographics will be used both to analyze the similarities and differences in Keflavik and Landvetter airports and to test the validity and reliability of this study and its survey results.

Table 5.1 Demographics benchmarking

Demographics		Industry Average*	Europe*	< 5 Million*	Keflavik*	Landvetter**
Gender	Male	57%	56%	55%	54%	67%
	Female	43%	44%	45%	46%	33%
Age	16-25	15%	14%	13%	21%	14%
	26-34	23%	23%	22%	26%	21%
	35-44	22%	23%	22%	16%	26%
	45-54	19%	19%	20%	19%	22%
	55-64	15%	15%	16%	13%	14%
	65+	7%	6%	7%	5%	3%
Trip purpose	Business	36%	36%	34%	22%	59%
	Leisure	64%	64%	66%	78%	41%
Times per year	11+ times/year	17%	18%	16%	11%	18%
	3-10 times/year	52%	53%	51%	66%	44%
	1-2 times/year	32%	28%	34%	24%	38%
Waiting time ***	< 30 min	3%	2%	3%	0%	0%
	30-45 min	7%	5%	6%	2%	3%
	45-60 min	12%	10%	12%	4%	10%
	1h-1h15	15%	14%	15%	8%	15%
	1h15-1h30	12%	13%	13%	9%	18%
	1h30-2h	25%	27%	27%	41%	26%
	>2h.	27%	29%	25%	36%	27%

*Source: ACI Airport Service Quality Survey - Benchmarking the global airport industry (4th quarter 2008 for Keflavik Airport)

**Source: Research Solutions for Airports (RSA) on behalf of Goteborg-Landvetter airport (GOT), January 2008 (survey in June 20

***Landvetter statistics from 2002

Gender distribution is very different from Landvetter and Keflavik. When looking at the benchmark against other airports of less than 5 million, in Europe and industry average, one can see that Landvetter has a much higher percentage of male passengers than Keflavik does, 67 percent compared to 54 percent. On the same note, Landvetter also has a much higher percentage of business passengers, 59 percent, compared to 34 and 36 percent in the under 5 million, Europe and industry average categories. From this, one can conclude that Landvetter has an unusually high rate of male passengers travelling on business compared to other airports of similar size and the industry average. The common notion is that people travelling on business are those that travel frequently. The frequency of travel in Landvetter compared to the benchmark does not really support this since the percentage of those travelling 11 times a year and more is not higher than the industry average, Europe or in the less than 5 million category.

The purpose of trip in Keflavik is completely different than in Landvetter, with only 22 percent of passengers travelling on business, compared to 59 percent in Landvetter. This is supported by the lesser frequency of travel of only 11 percent in the 11 times a year category. Yet, Keflavik has a much higher rate of the frequency category of 3-10 times a year, or 66 percent, compared to 53 percent in Europe. If most business passengers travel frequently and Keflavik only has 22 percent business passengers, half of them will fit in the 11 times a year

category and the rest in the 3-10 times a year category. This leaves 55 percent of this category to leisure passengers. Increased popularity among Icelandic people in taking shorter and more frequent trips might explain this high rate.

Passenger waiting time in Keflavik supports the claim made earlier, that the airports mainly serves international flights as 77 percent of passengers arrive 1 ½ hours prior to departure or more. This compares to 53 percent in Landvetter and similar in the benchmarking of Europe, less than 5 million and industry average. International departures require passengers to arrive at airport with longer waiting time before departure than domestic departures. As Landvetter and other airports frequently have both domestic and international flights, the range in waiting time is wider. Despite that very few passengers arrive with less than 45 minutes to departure, or only 3 percent in Landvetter, 2 percent in Keflavik, 9 percent in less than 5 million category, 7 percent in Europe and 10 percent in the industry average.

Interestingly, the only noticeable difference in age distribution is in Keflavik, where a larger percentage of passengers are younger, or 16-25 and 26-34 years old, with 21 percent and 26 percent respectively. In all, young passengers between the ages of 16-34 represent almost half (47 percent) of the passengers in Keflavik. In comparison, 35 percent of passengers are aged 16-34 in both Landvetter and airports with less than 5 million passengers.

The following table (*Table 5.2*) shows a comparison of the commercial area in the international departure terminals of Keflavik and Landvetter airports respectively. The number of shops is almost double in Keflavik compared to Landvetter. This confirms my personal opinion of shopping availability in these two airports. My impression is that Keflavik allocates larger space for shops and the variety in product range is greater as well. This is confirmed by a comparison of percentages of space allocation in *Table 5.3* below. Shops in Keflavik that are not in Landvetter include an eyeglass/sunglass shop, jewellery shop, electronics shop, Blue Lagoon shop (trademark for Iceland).

Table 5.2 Comparison of commercial area in the international departure terminals

	Keflavik	**Landvetter**
Shops	15	7
Banks / Money Exchange	3	2
Internet / Computers	3	3
Restaurants / Café / Bar	5	5
Toilets	7	5
Lounges	1	2
Conference Centres	0	1

Source: Airport websites

Table 5.3 Comparison of space allocation

	Keflavik	Percent	Landvetter	Percent
Shopping	4926	63%	931	48%
Restaurants	1908	24%	494	26%
Service	1029	13%	506	26%
Total area	7863		1931	

* numbers are in m^2

Source: Company contacts

Keflavik and Landvetter have the same amount of internet/computers and restaurants/cafés/bars. There are more toilets in Keflavik and this can be explained by the layout of the airport. Keflavik has more banks/money exchange. Landvetter has two lounges and a conference centre, whereas Keflavik only has one lounge. Landvetter's emphasis on lounges and conference centres can be explained by its demographics (in *Table 5.1*). With a greater rate of business travellers, 59 percent versus 22 percent in Keflavik, Landvetter obviously focuses on trying to satisfy the needs of this passenger sector. On the other hand, Keflavik has more leisure travellers and in according to ACI (2008), 76 percent of passengers are transit passengers[2]. This could be one of the reasons for their focus on shops availability.

5.2 Respondents Characteristics

As mentioned earlier, a total of 305 passengers responded to the questionnaire, of which 200 in Landvetter airport and 105 in Keflavik airport. These are international passengers, departing from either Keflavik or Landvetter airports. Percentages are calculated based on valid answers in order to represent a more correct picture of the respondents. Demographic results are presented below in *Table 5.4.*

[2] Transit passengers are those that are connecting to another flight at the airport.

Table 5.4 Demographic results of survey

Demographics		**n_L=200**		**n_K=105**		**n=305**	
		Landvetter	**Valid Percentage**	**Keflavik**	**Valid Percentage**	**Total**	**Valid Percentage**
Gender	**Male**	**124**	**67%**	51	53%	175	62%
	Female	62	33%	46	47%	108	38%
	Total	186		97		283	
	Missing	*14*		*8*		*22*	
Age	16-24	15	8%	3	3%	18	6%
	25-34	39	20%	21	21%	60	20%
	35-44	59	30%	33	32%	92	31%
	45-54	43	22%	24	24%	67	23%
	55-64	28	14%	11	11%	39	13%
	65+	10	5%	10	10%	20	7%
	Total	194		102		296	
	Missing	*6*		*3*		*9*	
Travel Purpose	**Business**	**119**	**60%**	**38**	**38%**	157	53%
	Private/Leisure	**79**	**40%**	**61**	**62%**	140	47%
	Total	198		99		297	
	Missing	*2*		*6*		*8*	
Travel Frequency	0-2 times a year	53	27%	29	28%	82	27%
	3-10 times a year	74	37%	50	48%	124	41%
	11+ times a year	**72**	**36%**	25	24%	97	32%
	Total	199		104		303	
	Missing	*1*		*1*		*2*	
Nationality	Swedish	116	60%	0	0%	116	39%
	Icelandic	0	0%	59	58%	59	20%
	EU	**59**	**31%**	19	19%	78	26%
	Non-EU	15	8%	**20**	**20%**	35	12%
	Both EU and Non-EU	3	2%	4	4%	7	2%
	Total	193		102		295	
	Missing	*7*		*3*		*10*	
Destination EU/nonEU	**Within EU**	**155**	**81%**	39	43%	194	69%
	Outside EU	37	19%	**52**	**57%**	89	31%
	Total	192		91		283	
	Missing	*8*		*14*		*22*	

Gender distribution varies between Landvetter and Keflavik. While Keflavik has an almost even distribution with 53 percent male respondents and 47 percent female respondents, Landvetter has 67 and 33 percent male and female respondents respectively. This gender distribution is reliable since it reflects very accurately the demographics shown in *Table 5.1* .

Age distribution is similar in the two airports, except Landvetter has a slightly higher portion of younger passengers in age groups 16-34, representing 28 percent of sample, compared with 24 percent in Keflavik. This is not completely representative of the independent studies referred to previously (*Table 5.1*), where 47 percent of passengers were in the ages of 16-34 in Keflavik and 35 percent in Landvetter. Over half the sample is under 45 years of age, with 58 percent of those sampled at Landvetter, and 56 percent in Keflavik. Compared with the benchmark in *table 5.1*, this is a bit lower, where 61 percent were under 45 years of age in Landvetter and 63 percent in Keflavik.

Passengers' travel purposes vary between the two airports. In Landvetter the split is 60/40 in favour of business passengers and 32/68 in favour of leisure passengers in Keflavik. This result for Landvetter is reliable, but Keflavik's demographics from the ACI survey in *table 5.1* shows a 22/78 split into business and leisure passengers, different from the results shown here. In Keflavik, access to the business lounge was granted for conducting the survey directly to passengers most likely travelling on business. It is very likely that, since the sample was very small in Keflavik, only 105 passengers, which the number of passengers sampled in the business lounge skewed the results of how many passengers are travelling on business in Keflavik. This could have some impact on the analysis of results in the next chapter.

Both Keflavik and Landvetter have a similar percentage of passengers sampled that travel infrequently, or 0-2 times a year with 27 percent and 28 percent respectively. Passengers travelling 3-10 times a year had a higher rate in the Keflavik sample than in Landvetter, with 48 percent and 37% respectively. On the other hand, those travelling more than 10 times a year had a higher rate in Landvetter, or 36 percent, compared with 24 percent in Keflavik. This could be due to the high rate of business travellers in Landvetter airport. It is safe to assume that business travellers are those that travel most frequently. This is verified by a cross tabulation of purpose of trip and travel frequency shown in the following table. This result is calculated for the whole sample and shows that 56 percent of the passengers that travel on business more than 2 times a year travel in general 11 times a year or more. In other words, those travelling 11 times a year or more are 97 percent business travellers (passengers travelling on business more than 2 times a year).

Table 5.5 Cross tabulation of travel frequency by those who travel for business purposes more than 2 times a year

			1c) Business Purpose		Total
			Yes	No	Yes
1a) Travel Frequency	0-2 times a year	Count	4	75	79
		% within 1a) Travel	5,10%	94,90%	100,00%
		% within 1c) Business	2,40%	57,70%	26,40%
	3-10 times a year	Count	71	52	123
		% within 1a) Travel	57,70%	42,30%	100,00%
		% within 1c) Business	42,00%	40,00%	41,10%
	11+ times a year	Count	94	3	97
		% within 1a) Travel	96,90%	3,10%	100,00%
		% within 1c) Business	55,60%	2,30%	32,40%
Total		Count	169	130	299
		% within 1a) Travel	56,50%	43,50%	100,00%
		% within 1c) Business	100,00%	100,00%	100,00%

Regarding nationality of respondents 60 percent were of Swedish nationality at Landvetter airport and 58 percent of Icelandic nationality at Keflavik airport. These are very similar figures for the ratio of local nationality compared to international nationality of those sampled. There are differences between Landvetter and Keflavik when it comes to EU and non-EU passengers. The ratio of non-EU is higher in Keflavik than in Landvetter, with 20 percent and 8 percent respectively. Conversely, the ratio of EU nationality is higher in Landvetter than in Keflavik, with 31 percent and 19% respectively. The high rate of non-EU in Keflavik can be explained by the type of flights offered. Keflavik is a hub for Icelandair, which offers flights from Europe to USA via Iceland. Thus, there are many transfer passengers in Keflavik of US nationality, which is non-EU. There are no flights offered at Landvetter airport directly to the US.

The results for destination confirm the above reasoning, as 57 percent of respondents are travelling to a destination outside EU from Keflavik airport. Most flights offered in Landvetter are to EU nations or 81 percent according to this survey.

5.3 Questionnaire Part 1: Business Travel and Loyalty Program

The first part of the questionnaire asks respondents for their travel frequency, travel purpose, use of business lounge and membership in airline loyalty program. When comparing the results of Keflavik and Landvetter airports, a higher rate of respondents were members of an airport loyalty program in Keflavik or 65 percent versus 54 percent in Landvetter. This can be explained by the high response rate among business passengers in Keflavik. At least higher than what is typical as explained earlier.

Table 5.6 Comparison of airline loyalty program

	Keflavik	Valid Percent	Landvetter	Valid Percent	Total	Valid Percent
Yes	66	65%	106	54%	172	58%
No	36	35%	90	46%	126	42%
Total	102		196		298	
Missing	3		4		*7*	

Another explanation of the difference between airports can be seen in the following cross tabulation of airline loyalty program by nationality. 81 percent of Icelandic respondents in Keflavik belong to an airline loyalty program, whereas only 52 percent of Swedish respondents belong to an airline loyalty program in Landvetter. Because there were similar response rates of local nationalities (58 percent and 60 percent in Keflavik and Landvetter respectively), one can assume that it is Icelandic respondents who account for the difference.

Table 5.7 Cross tabulation comparison of airline loyalty program by nationality

Landvetter			1e) Airline Loyalty Program		Total
			Yes	No	
Nationality	Swedish	Count	52	62	114
		% within Nationality	46%	54%	100%
	EU	Count	39	18	57
		% within Nationality	68%	32%	100%
	Non-EU	Count	11	4	15
		% within Nationality	73%	27%	100%
	Both EU and Non-EU	Count	1	2	3
		% within Nationality	33%	67%	100%
Total		Count	103	86	189
		% within Nationality	55%	46%	100%

Keflavik			1e) Airline Loyalty Program		Tota
			Yes	No	
Nationality	Icelandic	Count	48	11	5
		% within Nationality	81%	19%	100
	EU	Count	6	11	1
		% within Nationality	35%	65%	100
	Non-EU	Count	10	9	1
		% within Nationality	53%	47%	100
	Both EU and Non-EU	Count	1	3	
		% within Nationality	25%	75%	100
Total		Count	65	34	9
		% within Nationality	66%	34%	100

Furthermore, the following table shows which airline loyalty programs are represented in the whole sample combined. SAS and Icelandair have the highest rate of members, as they are the flag carriers of the respective airports, Landvetter and Keflavik, followed by KLM, Lufthansa and all major US airlines.

Table 5.8 If yes, what airline loyalty program

	Frequency	Valid Percent
SAS	74	32%
Icelandair	42	18%
KLM	22	10%
Lufthansa (Miles&More)	21	9%
US Airlines (all major)	16	7%
Finnair	14	6%
BA	13	6%
Other Airlines	12	5%
Air France	7	3%
Star Alliance	5	2%
Malmö Aviation	3	1%
Total	229	
Missing	16	

5.4 Questionnaire Part 2: Time Factors

In the second part of the questionnaire, method of checking-in and time factors such as arrival time and what takes most time (finding parking, waiting for check-in or going through security control are asked for. It is interesting to see the difference between airports for methods of checking-in and arrival time. A great majority of respondents in Keflavik check-in at the counter or almost 80 percent. The self check-in machines at Keflavik airport are very recent and passengers may not have come to be as accustomed to using them as in

Landvetter. The same amount of respondents check-in via the counter as do by themselves at Landvetter airport, or 43 percent. Taking non-human contact methods of checking-in together, they represent 57 percent of respondents at Landvetter airport. Comparatively it is just above 20 percent for Keflavik. It can be both cost saving and more efficient for the airport, handling agent or airline to have passengers check-in via automated machines, online or by sms.

Table 5.9 Comparison check-in method

Check-in today	Keflavik	Landvetter	Total
Check-in at counter	79%	43%	55%
Self check-in machine	15%	43%	34%
Online	5%	13%	10%
SMS or other	1%	1%	1%

Looking at the cross tabulation for method of check-in by travel purpose is interesting. It has been established that business travellers are those that travel more frequently. The assumption would be that these travellers are better acquainted with the automated methods of checking-in and choose them in stead of checking-in at counter. The following is a cross tabulation calculation for the whole sample. The results show that 43 percent of at counter check-in are done by business travellers and 57 percent are private/leisure travellers. The automated methods of checking-in are indeed more popular among business travellers, with 80 percent of online check-in and 60 percent of self check-in coming from business passengers.

Table 5.10 Cross tabulation of check-in method by travel purpose

			1b) Travel Purpose		Total
			Business	Private /Leisure	
2b) Check-in today	Check-in at counter	Count	70	91	161
		% within 2b) Check-in today	43%	57%	100%
		% within 1b) Travel Purpose	45%	66%	55%
	Self check-in machine	Count	59	39	98
		% within 2b) Check-in today	60%	40%	100%
		% within 1b) Travel Purpose	38%	29%	34%
	Online	Count	25	6	31
		% within 2b) Check-in today	81%	19%	100%
		% within 1b) Travel Purpose	16%	4%	11%
	SMS or other	Count	1	1	2
		% within 2b) Check-in today	50%	50%	100%
		% within 1b) Travel Purpose	1%	1%	1%
Total		Count	155	137	292
		% within 2b) Check-in today	53%	47%	100%
		% within 1b) Travel Purpose	100%	100%	100%

Comparison of arrival time indicates that passengers come much sooner to the airport in Keflavik than in Landvetter with over 80 percent arriving more than one and a half hour prior to departure. Only 51 percent of respondents in Landvetter arrive more than one and a half hour prior to departure. These results correspond with the benchmark described previously in *table 5.1* with 77 percent and 53 percent arriving more than one and a half hours prior to departure in Keflavik and Landvetter respectively.

Table 5.11 Comparison of arrival time

Arrival time today	**Keflavik**	**Landvetter**	**Total**
More than 2 hours prior to departure	33%	22%	26%
1,5 - 2 hours prior to departure	48%	29%	35%
60-89 minutes prior to departure	17%	29%	25%
30-59 minutes prior to departure	3%	20%	14%
Less than 30 minutes prior to departure	0%	0%	0%

In the whole sample, cross tabulation of arrival time today by travel purpose has been done and shown in the following table. This reveals that those arriving between 30 and 59 minutes prior to departure are almost 90 percent business passengers. While those arriving more than 2 hours prior to departure are over 70 percent private/leisure passengers. Torres, Dominguez and Aza (2005) maintain that passenger waiting time to board influences the possibility for consumption, which will in turn have an impact on commercial revenues in airports.

Table 5.12 Cross tabulation of arrival time by travel purpose (whole sample)

			1b) Travel Purpose		Total
			Business	Private /Leisure	
2a) Arrival time today	More than 2 hours prior to departure	Count	21	56	77
		% within 2a) Arrival time today	27%	73%	100%
	1,5 - 2 hours prior to departure	Count	51	52	103
		% within 2a) Arrival time today	50%	51%	100%
	60-89 minutes prior to departure	Count	48	24	72
		% within 2a) Arrival time today	67%	33%	100%
	30-59 minutes prior to departure	Count	37	5	42
		% within 2a) Arrival time today	88%	12%	100%
Total		Count	157	137	294
		% within 2a) Arrival time today	53%	47%	100%
		% within 1b) Travel Purpose	100%	100%	100%

5.5 Questionnaire Part 3: Commercial Activities

This third part of the questionnaire deals with commercial activities and preferences of the passengers. Respondents are asked whether they purchased something and if yes, from what source. If they did not purchase anything, they were asked for the reason why. Passengers' preference for buying tax-free was also asked for. Two open questions asking respondents to mention what they would buy (product/service) that is not offered at the airport and what shop or restaurant brand they would like to see offered in the airport. The purpose of these questions was to see whether the current products, services, shops and restaurants offered in the airports were satisfactory or not and what could be done for improvement. In Appendix 4, results for these open questions are presented.

The following table (*Table 5.13*) shows that respondents at Keflavik airport shop more than those at Landvetter airport, or 78 percent and 59 percent respectively. Passengers at Keflavik airport are more likely to shop both at shops and restaurants with 43 percent of those that shopped doing so, while passengers at Landvetter are more likely to purchase merely from café/restaurant with 43 percent of those that shopped doing so. Of those that did not purchase, the most common reason was no intention to purchase with 83 percent of non-purchasers in Keflavik and 69 percent of non-purchasers in Landvetter. Other reasons for not purchasing were 10 percent of respondents in the whole sample and the main other reason was price.

Table 5.13 Airport comparison of the question: Did you purchase something from the airport today? (from where / reasons why)

	Keflavik	Landvetter	Total
Yes	78%	59%	65%
From Shop	*34%*	*33%*	*34%*
From café/restaurant	*24%*	*43%*	*35%*
From both	*43%*	*24%*	*32%*
No	22%	41%	35%
Not enough time	*4%*	*7%*	*7%*
Nothing appeals to me	*4%*	*13%*	*11%*
No intent to purchase	*83%*	*69%*	*73%*
Other	*8%*	*10%*	*10%*
No cell phone charger available to purchase, unbelievabl			11%
No local currency			11%
Price (too expensive)			67%
Too early			11%

The following table (Table 5.14) explains the difference of purchases between shops and café/restaurants after adding "from shop" with "from both" to give an "aggregate from shop" value, and adding "from café/restaurant" with "from both" to give an "aggregate from shop". The result is that passengers at Keflavik airport purchase more from shops than café/restaurants or 54 percent compared to 46 percent at Landvetter airport for purchases

from shops. From Table 5.2, it has already been established that Keflavik airport has more variety and number of shops. There are also more transit passengers at Keflavik airport and this could explain the difference in results.

Table 5.14 Airport comparison of purchases between shop and café/restaurant

	Keflavik	**Landvetter**	**Total**
Aggregate From Shop	54%	46%	49%
Aggregate From café/restaurant	46%	54%	51%
	100%	100%	100%

In the whole sample, a cross tabulation of the question "did you purchase something?" by travel purpose was made (*see Table 5.15*). The result of it is that passengers travelling on business are less likely to purchase with 54 percent, than private/leisure passengers with 78 percent. This result is important for management of the airports as it might indicate that the range of shops and restaurants are not appealing to those travelling on business. Unless, business travellers are more likely to not to purchase due to the reason that they did not intend to do so.

Table 5.15 Cross tabulation of purchasing by travel purpose

			1b) Travel Purpose		Total
			Business	Leisure	
3a) Did you	Yes	Count	84	109	193
		% within 1b) Travel Purpose	53,5%	78,4%	65,2%
	No	Count	73	30	103
		% within 1b) Travel Purpose	46,5%	21,6%	34,8%
Total		Count	157	139	296
		% within 1b) Travel Purpose	100%	100%	100%

The following results in *Table 5.16* indicate that business passengers are not more likely than private/leisure passengers to have no intention to purchase, as 71 percent of the business type non-purchasers and 81 percent of the private/leisure type non-purchasers answer "no intent to purchase" as the reason for not purchasing. In fact, business passengers claim "nothing appeals to me" to be the reason for non-purchase in almost 13 percent, compared to 8 percent for leisure/private passengers.

Table 5.16 Cross tabulation of reason not to purchase by travel purpose

			1b) Travel Purpose		Total
			Business	Leisure	
3a**)If no, why	Not enough time	Count	5	1	6
		% within 1b) Travel Purpose	7,9%	3,8%	6,7%
	Nothing appeals to me	Count	8	2	10
		% within 1b) Travel Purpose	12,7%	7,7%	11,2%
	No intent to purchase	Count	45	21	66
		% within 1b) Travel Purpose	71,4%	80,8%	74,2%
	Other	Count	5	2	7
		% within 1b) Travel Purpose	7,9%	7,7%	7,9%
Total		Count	63	26	89
		% within 1b) Travel Purpose	100%	100%	100%

The other commercial activities question was regarding preference of purchasing tax-free products in the airport. Table 5.17 shows this result, comparing the two airports in this study. There is a distinct difference between the airports, with 26 percent of sample in Keflavik preferring to buy tax-free at Keflavik airport, but only 8 percent of Landvetter sample preferred to purchase tax-free at Landvetter airport. The majority of the whole sample, both at Keflavik and Landvetter said it did not matter where they bought their tax-free purchases, or 56 percent.

Table 5.17 Do you prefer to buy tax-free in this airport, compare to other airports?

	Keflavik	Landvetter	Total
Yes	26%	8%	14%
No	17%	36%	29%
Does not matter	57%	56%	56%

The option of writing which other airports are preferred for purchasing tax-free product was given to those that did not prefer the airport they were in. The result is that from those passengers that took the time to write their preference, Copenhagen, Amsterdam and Oslo were most frequently mentioned. A list of the preferred airports for tax-free purchases is provided in Appendix 5.

5.6 Questionnaire Part 4: Satisfaction/Importance of Experience

In this part of the questionnaire, respondents were asked to rate their satisfaction and importance of seven technical quality attributes and two functional quality attributes on a 7-point scale. The following table (*Table 5.17*) shows the mean values and standard deviations from the mean of the seven technical qualities for both Keflavik and Landvetter airports. Speed of check-in and speed of security control have the highest rate of both satisfaction and importance for both airports. The importance of these attributes is rated

higher than the satisfaction giving the difference of satisfaction and importance (S-I) a negative value. This indicates that the respondents are less satisfied with the speed of check-in personnel and security control than they expected, as importance rating indicate the expectations of respondents.

The mean importance rating for product range in the airport shops is rather low, or 3,51 and 3,32 in Keflavik and Landvetter respectively. Yet, the mean satisfaction is higher, with a positive difference of 1,20 in Keflavik and 0,94 in Landvetter. This indicates that respondents are happy with the product range compared with their expectation of how important it should be. Although the higher value in Keflavik is not significantly higher, it might indicate that the number and variety of shops exceed passengers' expectations of the airport. For variety of restaurants and cafés in airport, Keflavik has a negative S-I difference, while Landvetter has a positive S-I difference showing that Landvetter's respondents are more satisfied with the restaurant variety. Even though both airports have the same number in restaurants (see *Table 5.3*), Landvetter does have more variety.

Keflavik scores higher than Landvetter on S-I difference for parking facilities, but Landvetter scores higher than Keflavik for ability to work at the airport. The appearance of toilets scored negatively for S-I in both airports, yet Landvetter had a lower core than Keflavik.

Table 5.18 Comparison of I/P means for technical quality attributes

Technical Quality	**Keflavik**					**Landvetter**				
	Mean Importance	SD	Mean Satisfaction	SD	*S-I*	Mean Importance	SD	Mean Satisfaction	SD	*S-I*
Product range in the airport shops	3,51	1,78	4,70	1,39	*1,20*	3,32	1,59	4,26	1,18	*0,94*
Variety of restaurants and cafés in airport	4,27	1,65	4,17	1,55	*-0,10*	3,95	1,53	4,17	1,27	*0,23*
Appearance of toilets	5,65	1,62	5,55	1,20	*-0,09*	5,75	1,31	4,94	1,35	*-0,81*
Parking facilities	4,09	2,20	4,78	1,68	*0,69*	4,57	2,18	4,76	1,41	*0,19*
Ability to work at the airport, i.e. acces to computers, wireless internet etc.	4,37	2,06	4,30	1,63	*-0,08*	4,08	1,95	4,53	1,43	*0,45*
Speed of check-in personnel	6,10	1,16	5,09	1,47	*-1,01*	5,94	1,14	5,25	1,41	*-0,69*
Speed of security control	5,96	1,15	5,34	1,31	*-0,61*	5,95	1,17	5,16	1,40	*-0,80*

Functional quality is measured by attitude of check-in personnel and security control personnel. Satisfaction and importance rating is fairly high, or over 5 for both attributes. Yet, the S-I score is negative for both airports in both attributes. Keflavik scored less negative with than Landvetter.

Table 5.19 Comparison of I/P means for functional quality attributes

Functional Quality	**Keflavik**					**Landvetter**				
	Mean Importance	SD	Mean Satisfaction	SD	*S-I*	Mean Importance	SD	Mean Satisfaction	SD	*S-I*
Attitude of check-in personnel	5,82	1,32	5,69	1,38	*-0,14*	5,90	1,23	5,35	1,39	*-0,55*
Attitude of security control personnel	5,72	1,29	5,34	1,31	*-0,38*	5,80	1,21	5,33	1,34	*-0,46*

As both speed of security control and attitude of security control personnel rated high in importance with a slight negative S-I value, they fall in the upper right quadrant of the IP matrix in Figure 5.2. The figure is for the aggregate sample. In fact nearly all attributes lie in this quadrant. According to Martilla and James (1977, p. 78), the airports should "keep up the good work" with the attributes that are in this quadrant because customers value them (high importance) and are pleased with the airports performance, despite the negative S-I value.

Only product range in the airport shops and possibly variety of restaurants and cafés in the airport are in the lower right quadrant. Martilla and James (1977, p. 78) call this quadrant "possible overkill" because even though passengers rate a high satisfaction with these attributes, their importance is less. However, there might be some other good reasons for continuing the service of these attributes, especially as airports generate revenue from them usually via concessions.

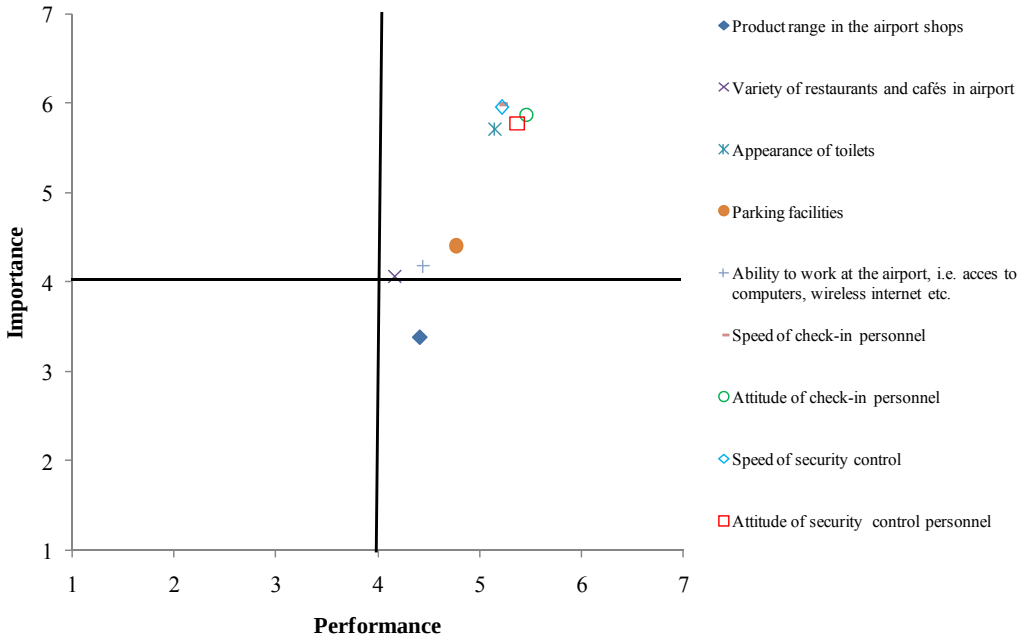

Figure 5.2 IP Matrix – Factors influencing experience

Overall satisfaction with the respective airports scored fairly high, with a mean of 5,34 for the whole sample (see Table 5.19). Keflavik airport scored lower than Landvetter, with a mean value of 5,28 compared to 5,45. Interestingly, respondents did not rate either airport with a lower value than 3.

Table 5.20 Comparison of overall satisfaction of airport

Descriptive Statistics	N	Min	Max	Mean	SD
Total sample	286	3	7	5,34	0,89
Keflavik	185	3	7	5,28	0,88
Landvetter	101	4	7	5,45	0,91

Appendix 6 shows a comparison of the airports for the distribution of satisfaction ratings for each factor asked in part 4 of the questionnaire, as well as the overall satisfaction question. It is interesting to see that Keflavik has a higher proportion of respondents that are rating a score of 6 or 7 for satisfaction with product range. This is in accordance with the findings in previous chapters, that Keflavik has a larger range of shops than Landvetter and passengers at Keflavik airport purchase more from the shops.

5.7 Questionnaire Part 5: Airport Loyalty Program

The questions about the airport loyalty program were designed to find out whether or not passengers would want to join an airport loyalty membership program for an annual fee and what service attributes they think are important for such a program. Respondents were also asked how much they would pay annually for an airport loyalty membership.

The following table (*Table 5.21*) shows the comparison between Keflavik and Landvetter airports of potential interest in the airport membership program. The results are almost identical with 37 percent of the whole sample willing to be members of an airport membership program.

Table 5.21 Airport comparison of interest in the airport membership program

	n_L=200		n_K=105		n=305	
	Landvetter	Cumulative Percent	Keflavik	Cumulative Percent	Total	Cumulative Percent
Yes	65	37%	36	36%	101	37%
No	110	63%	63	64%	173	63%
Total	175		99		274	
Missing	*25*		*6*			

By making a cross tabulation of travel purpose in each airport and the whole sample by those who are interested in being a member of an airport loyalty membership it is possible to see whether business passengers are more likely to be willing to join this program than private/leisure passengers. As seen in the table above (*Table 5.21*), 37 percent of sample said yes to being interested in an airport membership program. From those that said yes, the majority of the sample or 66 percent is travelling on business (*see Table 5.22*).

Passengers in Landvetter willing to pay for airport membership program are more likely to be business passengers, or 74 percent compared to 26 percent private/leisure passengers. In Keflavik, passengers sampled that are willing to pay for airport membership program, are almost evenly distributed between those travelling on business (52 percent) and those travelling for private/leisure purposes (48 percent).

When looking at the percentage within travel purpose, a common trend is observed in the whole sample. In the whole sample, 45 percent of business passengers said yes and 55 percent said no, with both Landvetter and Keflavik showing very similar outcomes.

The distribution among those willing to pay for airport membership program within the private/leisure travel purpose is also very similar in the whole sample as in Landvetter and Keflavik, or 26 percent interested and 74 percent not interested.

Table 5.22 Cross tabulation of travel purpose in each airport and whole sample by those who are interested in an airport membership program

	Interested in airport membership program		
Travel purpose	**Yes**	**No**	
Business Keflavik	47%	53%	100%
Business Landvetter	45%	55%	100%
Business Total	45%	55%	100%
Private/Leisure Keflavik	28%	72%	100%
Private/Leisure Landvetter	25%	75%	100%
Private/Leisure Total	26%	74%	100%

	Interested in airport membership program	
Travel purpose	**Yes**	**No**
Business Keflavik	52%	31%
Private/Leisure Keflavik	48%	69%
Business Landvetter	74%	54%
Private/Leisure Landvetter	26%	47%
Business Total	66%	46%
Private/Leisure Total	34%	54%

The following table (*Table 5.23*) shows the mean values and standard deviation from the mean for the importance rating of service attributes in an airport membership program for the total sample (7-point scale). The most important attributes with the highest mean values are "check-in priority" and "security control priority" with mean values of 5,38 and 5,24 respectively. "Possibility to leave dry cleaning" and "access to conference centre" rated the lowest, with mean values of 1,88 and 1,99 respectively.

Mean values and standard deviations from the mean do not show the distribution of ratings, which can be meaningful when the tendency is toward either side of the scale (1 or 7).

Therefore, figures with the distribution of ratings for each service attribute are provided in Appendix 7, comparing the airports and the whole sample.

Some interesting results from looking at these distributions are that passengers at Keflavik airport rate a higher importance to "access to business lounge", "check-in priority" and "security control priority" than those at Landvetter. Passengers at Keflavik airport are possibly more price sensitive than the ones sampled at Landvetter, as they rated a higher importance on "discount in shops and restaurants". Also, Keflavik passengers set a higher importance to "arrival service lounge" than Landvetter passengers.

Table 5.23 Mean values for importance rating of service attributes in airport membership program (total sample)

Descriptive Statistics	N	Min	Max	Mean	Std. Deviation
Access to business lounge	266	1	7	4,15	2,11
Check-in priority	268	1	7	**5,38**	1,77
Security-check priority	268	1	7	**5,24**	1,78
Poss to leave dry cleaning	266	1	7	1,88	1,44
Access to conf. center	264	1	7	1,99	1,38
Discount in shops and rest	264	1	7	3,73	1,84
Airport Assistance Services	261	1	7	2,87	1,77
Food/drink bag on arrival	266	1	7	3,18	1,87
Arrival service lounge	262	1	7	3,11	1,91
Car park discount	265	1	7	3,58	2,18
Booking availability of parking	263	1	7	3,33	2,08
Availability of hired parking	263	1	7	2,88	2,02
Car cleaning services	266	1	7	2,40	1,85
Valid N (listwise)	243				

The following table (*Table 5.24*) shows the willingness to pay for the annual fee of an airport membership program. The missing value of 163 represents those not answering this question and those writing "I don't know" or "?" in the response box. One limitation to the results in this question is that the information that this was an annual fee was in brackets behind the response box and some respondents might not have noticed it.

The mean value is 113 EUR with a standard deviation from the mean being 254 EUR. The range of responses was large, or from 0 EUR to 2.000 EUR. Most respondents were willing to pay between 1-100 EUR, or 68 percent of those who answered this question.

Table 5.24 Willingness to pay for an airport membership program (annual fee)

	Pay in EUR		
Frequency	0 EUR	21	15%
	1-100 EUR	96	68%
	101-200 EUR	10	7%
	201-300 EUR	7	5%
	501+ EUR	3	2%
	Total	142	
	Missing	*163*	
Descriptive	Mean (EUR)	113	
	Std. Deviation (EUR)	254	
	Min (EUR)	0	
	Max (EUR)	2000	

5.8 General Comments

The questionnaire form gave respondents an option to fill out general comments. These comments are listed in Appendix 8.

6 ANALYSIS

This chapter will focus on analysing the results of the survey in connection with research model in chapter 3.3 and test the seven hypotheses set forth. This will be done by finding evidence in the data analysed that could support or dismiss the hypotheses. Explanations or underlying reasons for the results will be made as well.

6.1 The impact of service quality on satisfaction

The first two hypotheses deal with the impact of quality on satisfaction. As previously argued in the theoretical chapter, the technical and functional quality attributes impact the way customers perceive service quality in general (Grönroos, 1984) and service quality, along with other aspects, impact customer satisfaction (Zeithaml et al., 2006). Thus, the following two hypotheses were made.

H1	*Satisfaction of functional quality correlates with overall airport satisfaction. Functional quality being measured as the quality of service personnel.*
H2	*Satisfaction of technical quality correlates with overall airport satisfaction. Technical quality being measured as the quality of airport shops, variety of restaurants and cafés and ability to work at the airport, security control speed, check-in speed, parking facilities and toilets.*

In order to measure whether there is such a correlation as described in H1 and H2, a Spearman's Rho (ρ) correlation is calculated between overall satisfaction and both the functional quality attributes and technical quality attributes (see *Table 6.1*). The findings illustrate statistical significance at the 1 percent level (2-tailed) for all functional quality attributes and all technical quality attributes. Thus, confirming both hypotheses (H1 and H2) that functional and technical quality correlate positively with overall satisfaction. This correlation test cannot be used to infer a causal relationship (Bryman and Bell, 2007), thus the functional and technical quality attributes measured in the survey might influence overall satisfaction of the airport or vice versa.

Table 6.1 Spearman's rho correlation of satisfaction with functional and technical quality attributes

Functional Quality	Mean Satisfaction	SD	Spearman's Rho (ρ) Correlation Coefficient	Sig. (2-tailed)	N
Attitude of check-in personnel	5,350	1,390	0,518 **	0,000001	259
Attitude of security control personnel	5,333	1,338	0,574 **	0,000001	276
Technical Quality					
Product range in the airport shops	4,262	1,183	0,372 **	0,000001	257
Variety of restaurants and cafés in airport	4,174	1,266	0,310 **	0,000001	268
Appearance of toilets	4,939	1,346	0,407 **	0,000001	271
Parking facilities	4,764	1,406	0,313 **	0,000018	180
Ability to work at the airport, i.e. acces to computers, wireless internet etc.	4,530	1,434	0,221 **	0,001931	195
Speed of check-in personnel	5,254	1,415	0,487 **	0,000001	264
Speed of security control	5,156	1,396	0,594 **	0,000001	276

**Correlation is significant at the 0.01 level (2-tailed).

6.2 The impact of past experience on satisfaction and loyalty

The third and fourth hypotheses express the impact of past experience on satisfaction (H3) and loyalty (H4). Past experience is measured as passengers that travel frequently, or more than 11 times a year. Zeithaml et al. (2006) and Parasuruman et al. (1985) maintain that personal factors, such as personal needs and past experience are among those that influence customer satisfaction.

H3	*Past experience correlates with overall airport satisfaction. Past experience being measured as passengers that travel frequently (11+ times/year).*

Travel frequency is an ordinal variable, coded 1 for 0-2 times a year, 2 for 3-10 times a year and 3 for 11+ times a year. Overall satisfaction is an ordinal variable using a 7-point scale. Using a Spearman's rho correlation calculation, a negative correlation appears between travel frequency and overall satisfaction with the airport (see *Table 6.2*). This means that passengers are less satisfied with the airport overall when they travel more frequently. The correlation test is significant at the 1 percent level (2-tailed), but the negative correlation coefficient is not very high, only -0,1758.

Table 6.2 Spearman's rho correlation of travel frequency with overall airport satisfaction

Spearman's rho Correlation

		Overall satisfaction
Travel Frequency	Correlation Coefficient	-0,17580 **
	Sig. (2-tailed)	0,00290
	N	285

** Correlation is significant at the 0.01 level (2-tailed).

A cross tabulation of overall satisfaction and travel frequency reveals the same results as described above (see Appendix 9). The mean rate of overall satisfaction for the whole sample is 5,34 (see *Table 5.19*), making the score of 6 and 7 above average. We could say that a rate of 6 or 7 is when a respondent is "highly satisfied". When the results of those rating overall satisfaction of airport as 6 or 7 is compared within travel frequency, the following table is computed. The results indicate the negative correlation as found before. A chi-square test of the cross tabulation in Appendix 9 indicates that the results are statistically significant at the 10 percent level (2-tailed).

Table 6.3 Overall satisfaction score of 6 and 7 by travel frequency

	Travel Frequency		
Overall satisfaction	0-2 times a year	3-10 times a year	11+ times a year
Score of 6 and 7 as percent within travel frequency	60,80%	43,00%	35,60%

Therefore H3 is confirmed, however it should be noted that there is a negative correlation between past experience and overall airport satisfaction.

H4	*Past experience correlates positively with the interest in paying a membership fee for an airport loyalty program. Past experience being measured as passengers that travel frequently (11+ times/year).*

Travel frequency is an ordinal variable, coded 1 for 0-2 times a year, 2 for 3-10 times a year and 3 for 11+ times a year. Loyalty is measured as the interest in paying a membership fee for an airport loyalty program and is a nominal variable, coded 1 for yes and 2 for no. To test this hypothesis, a cross tabulation of those interested in an airport membership program and travel frequency is performed (see *Table 6.4*). The results indicate that those passengers that travel more frequently are more interested in paying a fee for an airport loyalty program, with more than half of those that travel more than 11 times a year being interested.

Table 6.4 Cross tabulation of those interested in airport membership program by travel frequency

		1a) Travel Frequency			
		0-2 times a year	**3-10 times a year**	**11+ times a year**	**Total**
5a) Interested in airport memb.prog.	**Yes**	15 21%	35 31%	51 57%	101 37%
	No	57 79%	79 69%	38 43%	174 63%
	Total	72 100%	114 100%	89 100%	275 100%

These results are statistically significant at the 1 percent level using a chi-square test. The relationship is not very strong as the value is only 0,23 for Cramer's V. But as the results are statistically significant, H4 is confirmed.

6.3 The impact of satisfaction on loyalty

In testing H5, the impact of satisfaction on loyalty is undertaken. As mentioned previously in chapter 2, research has shown that there is a positive correlation between satisfaction and loyalty (Anderson, Fornell & Lehmann, 1994; Heskett et al., 1994; Baker & Crompton, 2000; Zeithaml et al., 2006; Bosque & Martín, 2008).

H5	*Satisfaction correlates positively with the interest in paying a membership fee for an airport loyalty program.*

Satisfaction is measured as overall airport satisfaction and is an ordinal variable (7-point scale). Loyalty is measured as the interest in paying a membership fee for an airport loyalty program and is a nominal variable, coded 1 for yes and 2 for no. The appropriate correlation test for this hypothesis is the compare means test (Bryman and Bell, 2007). The following table shows the results of that test and it indicates that although the difference is very small, passengers that are more satisfied are less likely to be interested in paying a fee for an airport loyalty program.

Table 6.5 Comparison of overall satisfaction means by interest in airport membership program

Interested in airport memb.prog.	Overall satisfaction Mean	N	SD
Yes	5,235	98	0,961
No	5,396	164	0,848
Total	5,335	263	0,892

The ANOVA table generated shows that this result is statistically insignificant, with a score of significance at the 40 percent level (2-tailed). The Eta value is also very low, or 0,091, which indicates a very low level of association.

Therefore H5 is denied as the results indicate a negative correlation between satisfaction and loyalty membership interest and the test is statistically insignificant. Although previous research illustrates that there is a positive relationship between satisfaction and loyalty, the issue of how loyalty is measured in this study could be the reason why it is not showing the same results.

6.4 The impact of travel purpose on satisfaction and loyalty

As mentioned in the review of relevant literature in chapter two, personal factors can influence satisfaction (Zeithaml et al., 2006, Parasuruman et al., 1985). In this study, purpose of travel is regarded as a personal factor. The following two hypotheses (H6 and H7) will be tested and the impact of travel purpose on satisfaction and loyalty answered.

H6	*Purpose of travel correlates with overall airport satisfaction. Purpose of travel being measured as business or leisure.*

Purpose of travel is a nominal variable, coded 1 for business and 2 for private/leisure. Overall airport satisfaction is an ordinal variable (7-point scale). Thus a cross tabulation of these variables is the appropriate measure for testing the hypothesis (see *Table 6.6*). The results are statistically significant at the 5 percent level (2-tailed) using a chi-square test and indicate that private/leisure passengers are more likely to be "highly satisfied" scoring 6 or 7 for overall satisfaction of airport, with 55 percent of private/leisure passengers rating 6 or 7 and 38 percent of business passengers rating 6 or 7.

Table 6.6 Cross tabulation of overall satisfaction by purpose of travel

			1b) Travel Purpose		Total
			Business	Private /Leisure	
4j) Overall satisfaction	3	Count	3	2	5
		% within 1b) Travel Purpose	2,00%	1,50%	1,80%
	4	Count	27	16	43
		% within 1b) Travel Purpose	18,10%	12,30%	15,40%
	5	Count	62	41	103
		% within 1b) Travel Purpose	41,60%	31,50%	36,90%
	6	Count	51	55	106
		% within 1b) Travel Purpose	34,20%	42,30%	38,00%
	7	Count	6	16	22
		% within 1b) Travel Purpose	4,00%	12,30%	7,90%
Total		Count	149	130	279
		% within 1b) Travel Purpose	100,00%	100,00%	100,00%

To confirm this correlation, as the previous test only showed a 5 percent statistical significance, a compare means test was performed (see *Table 6.7*). These results show the same as above, that private/leisure passengers have a higher satisfaction rate than business passengers. This test is statistically significant at the 1 percent level according to an ANOVA table and the Eta value is 0,175.

Table 6.7 Comparison of overall satisfaction means by purpose of travel

	Overall satisfaction		
Travel Purpose	Mean	N	SD
Business	5,201	149	0,854
Private/Leisure	5,515	130	0,917
Total	5,348	279	0,896

H6 is confirmed, with a positive correlation between travel purpose and overall satisfaction, only due to the fact that travel purpose was coded 1 for business and 2 for private/leisure.

H7	*Purpose of travel (POP) correlates positively with the interest in paying a membership fee for an airport loyalty program. Purpose of travel being measured as business or leisure.*

Purpose of travel is a nominal variable, coded 1 for business and 2 for private/leisure. Loyalty is measured as the interest in paying a membership fee for an airport loyalty program and is a

nominal variable, coded 1 for yes and 2 for no. To test this hypothesis, a cross tabulation of those interested in an airport membership program and travel purpose is performed (see *Table 6.8*). The results are statistically significant at the 1 percent level using a chi-square test. The results indicate that business passengers are more likely to be interested in an airport loyalty program with 45 percent of business travellers compared to 26 percent private/leisure travellers showing interest in paying for an airport loyalty membership. Thus, H7 is confirmed.

Table 6.8 Cross tabulation of interest in airport loyalty program by travel purpose

			1b) Travel Purpose		Total
			Business	Private /Leisure	
5a) Interested in airport	Yes	Count	65	33	98
		% within 1b) Travel Purpose	45%	26%	36%
	No	Count	78	93	171
		% within 1b) Travel Purpose	55%	74%	64%
Total		Count	143	126	269
		% within 1b) Travel Purpose	100%	100%	100%

7 CONCLUSIONS AND RECOMMENDATIONS

This chapter will make conclusions of the study, focusing on survey findings and analysis of hypotheses. Then recommendations for both Keflavik and Landvetter airports will be made as well as recommendations for further research.

7.1 Conclusions

The aim of this research was to investigate the feasibility of offering an airport loyalty program in small international airports and to measure satisfaction of certain chosen service attributes in airports. Three objectives were set forth. The first objective was to fulfil the gap in literature on airport relationships between various customer groups and the airport. This objective has been met by conducting a review of relevant literature in chapter two and drawing an illustration of the relationship between various customer groups and the airport (see figure 2.6) as well as describing the relations. The second objective was to answer the hypotheses based on relevant tests and analysis. This objective has been met by testing the hypotheses in the research model and a summary of the conclusions is provided in the following section. The third objective of this study was to make conclusions and give recommendations to Keflavik and Landvetter airports. This chapter aims to meet the third objective.

7.1.1 Conclusion of Study Findings

The major results of the survey were presented in chapter five along with a background introduction to Keflavik and Landvetter airports. These findings show that Keflavik and Landvetter airports both have yearly passenger volume of less than 5 million. Keflavik has more leisure passengers than business and focuses on retail as they have more shops than Landvetter. On the other hand, Landvetter has more business passengers than leisure and focuses on serving them by offering two lounges and a conference centre.

The different priorities between business and leisure passengers are clear and a comparison between Keflavik and Landvetter reveals some interesting results. Automated methods of checking-in are more popular among business travellers in both Keflavik and Landvetter. In the whole sample, those arriving late to airport or 30 to 59 minutes prior to departure are almost 90 percent business passengers, giving them little time to enjoy airport services and shopping. Business passengers are less likely to purchase something at the airports, with 54 percent, compared to 78 percent leisure travellers.

Overall satisfaction of the airport was rated higher at Landvetter airport with the mean of 5,45 (on a 7-point scale) compared to 5,28 at Keflavik airport. The results for the difference between the mean importance rating and mean satisfaction rating of quality attributes were interesting for product range in the airport shops and variety of restaurants and cafés in the airport. They indicate that passengers rate these commercial attribute less important than their

satisfaction with them. This is contrary to the trend in the industry that commercial revenue is increasing in airports.

Interest in membership of airport loyalty program for an annual fee is the same for Landvetter and Keflavik, with about 37 percent of the respondents being interested. When looking at the difference between business and leisure passengers, a common trend is also observed within both Landvetter and Keflavik. Nearly half of business travellers are interested in airport loyalty program, while only one quarter of leisure travellers are interested. Passengers in Landvetter willing to pay for airport membership are more likely to be business travellers, whereas in Keflavik they are more evenly distributed among business and leisure. Leisure travellers in Keflavik are also more likely to be frequent travellers than in Landvetter.

The most important service attributes to be included in an airport loyalty program are check-in priority and security-check priority. Access to business lounge is the third most important attribute. The least important attributes are possibility to leave dry cleaning and access to conference centre. 68 percent are willing to pay between 1 and 100 EUR for an airport loyalty program, whereas the mean willingness to pay for an airport loyalty program was 113 EUR per annum, but only 14 percent are willing to pay more than 100 EUR. .

7.1.2 Conclusion of Analysis

The result of the study is that all but one hypotheses are confirmed, as illustrated in the following figure.

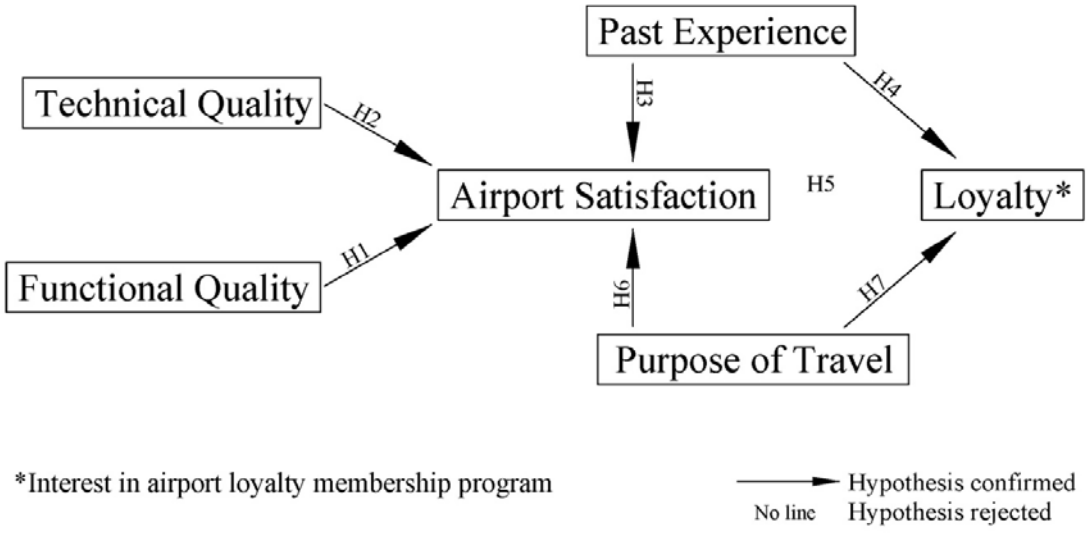

Figure 7.1 Research Model revised

In order to answer the research question of what factors influence the willingness to pay a fee for an airport loyalty program, four sub-questions were set forth as follows.

1. *What is the impact of service quality on airport satisfaction?*
2. *What is the impact of passengers' past experience on airport satisfaction and loyalty?*
3. *What is the impact of passengers' airport satisfaction on loyalty?*
4. *What is the impact of travel purpose on satisfaction and loyalty?*

The technical and functional quality attributes of service quality tested in this research all have a positive impact on overall airport satisfaction. Although there is no possibility to know which is the cause and which is the effect. Thus, the overall aiport satisfaction could be effecting the specified quality attributes in question.

Passengers past experience measured by travel frequency had a negative correlation with satisfaction, meaning that those who travel more frequently are less satisfied with the airport, and a positive correlation with loyalty, meaning that those who travel more frequently are more likely to be interested in airport loyalty membership for an annual fee.

There was no correlation between passengers' airport satisfaction and loyalty, which is contrary to research in this area. The impact of travel purpose on satisfaction and loyalty was that business travellers are less satisfied with the airport than leisure/private travellers but they are more likely to be interested in airport loyalty membership for an annual fee.

Therefore, satisfaction and service quality have no affect on the interest in belonging to an airport loyalty program. Rather it is past experience and travel purpose that contribute to loyalty membership in airports. This conclusion suggests that airport loyalty program is likely to appeal to business travellers who fly frequently.

7.2 Recommendations

7.2.1 Recommendations for Keflavik

Based on the results of how many passengers would be willing to pay for a airport loyalty membership, Keflavik would be able to generate 208.020 members (see Appendix 10 for calculations) . This study shows that the willingness to pay for a membership program is no more than 100 EUR annually. The Privium club in Amsterdam charges 159 EUR per annum (Schiphol Airport, 2009). If the airport would charge 100 EUR for annual membership it would give Keflavik airport 20.802.000 EUR in direct annual revenues or 33.075.000 EUR for a 159 EUR annual charge. The cost for establishing an airport loyalty program is not within the scope of this study, so that cannot be calculated. Taking the costs into consideration, Keflavik is able to decide whether or not it is feasible to offer such a program.

Costs that would not be direct to the program would include the loss of revenue from those passengers sitting in the lounge and consuming free food and drinks.

The following matrix (*Figure 7.2)* is an Importance-Performance analysis for the factors influencing passenger experience from the question in part four of the survey. It indicates that Keflavik should focus on keeping up the good work in the features that lie in the upper right

hand corner, which are "appearance of toilets", "speed of check-in personnel", "speed of security control personnel", "attitude of check-in personnel" and "attitude of security control personnel".

Other service attributions that fall within this quadrant are "variety of restaurants and cafés in airport" and "ability to work and the airport…". These two have similar rating for importance and performance, with a score just over 4. Keflavik airport could look at this result as an opportunity to improve these service features and bring them further to the right with a higher performance.

In Keflavik airport, passengers rate "parking facilities" with a higher performance than importance. The importance of parking to passengers depends on the type of passenger. Local passengers might value a higher importance of parking facilities at the airport than do international passengers and transit passengers do not have any concern about parking at all. As the IP matrix is an illustration of mean values for the sample, it would be necessary to look deeper into the sample and calculate the mean importance-performance rate of parking for only locals. Finally "product range in the airport shops" is valued with a higher performance than importance, indicating that people do not come to Keflavik airport to shop as their main concern.

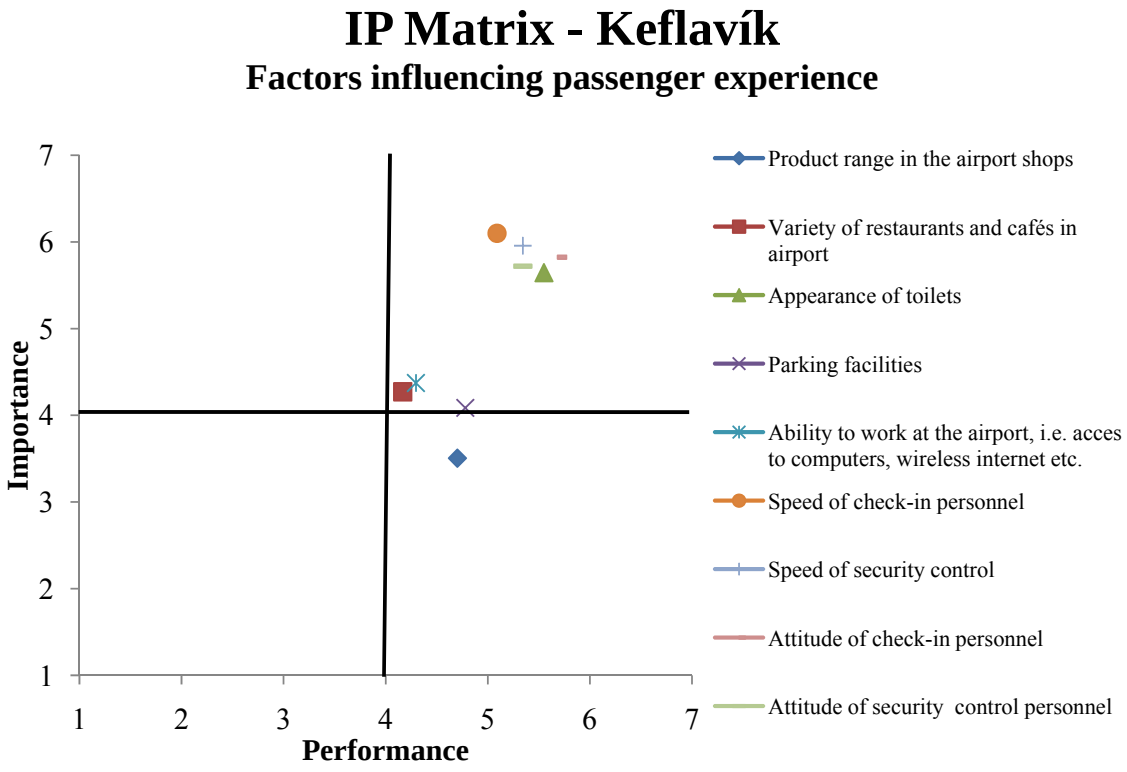

Figure 7.2 IP Matrix for Keflavik

The importance rating is difficult to manage as passengers are a very heterogenous group. This study shows that the service features that concern the core services of airports, such as check-in, security control, hygiene (toilets) are what passengers value as most important. Services such as shops, restaurants, internet access and parking are auxiliary services that passengers generally do not value as highly. This study in Keflavik and Landvetter confirm this as can be seen in the previous and following IP matrixes.

7.2.2 Recommendations for Landvetter

Based on the results of how many passengers would be willing to pay for a airport loyalty membership, Landvetter would be able to generate 306.641 members (see Appendix 10). As mentioned above, the willingness to pay is no more than 100 EUR and Amsterdam aiprort's Privium club charges 159 EUR annually. If Landvetter airport would charge 100 EUR for annual membership it would give 30.664.000 EUR in direct annual revenues or 48.756.000 EUR for a 159 EUR annual charge. The cost for establishing an airport loyalty program is not within the scope of this study, so that cannot be calculated. Taking the costs into consideration, Landvetter airport should be able to decide whether or not it is feasible to offer such a program. Indirect costs would include the loss of revenue from those passengers sitting in the lounge and consuming free food and drinks.

The following matrix is an Importance-Performance analysis for the factors influencing passenger experience from the question in part four of the survey. It indicates that Landvetter should focus on keeping up the good work in the features that lie in the upper right hand corner, which are "appearance of toilets", "speed of check-in personnel", "speed of security control personnel", "attitude of check-in personnel" and "attitude of security control personnel".

Other service attributions that fall within this quadrant are "parking facilities" and "ability to work and the airport…". Parking facilities have a similar performance and importance rating in this study, with the mean rate of just below 5. Passengers in Landvetter rate the ability to work in the airport higher on performance than importance indicating that Landvetter airport is providing an adequate service in this area.

In Landvetter airport, passengers rate "variety of restaurants and cafés in airport" and "product range in the airport shops" with a higher performance than importance, indicating that people do not come to Landvetter airport to shop and have a "fika" as their main concern.

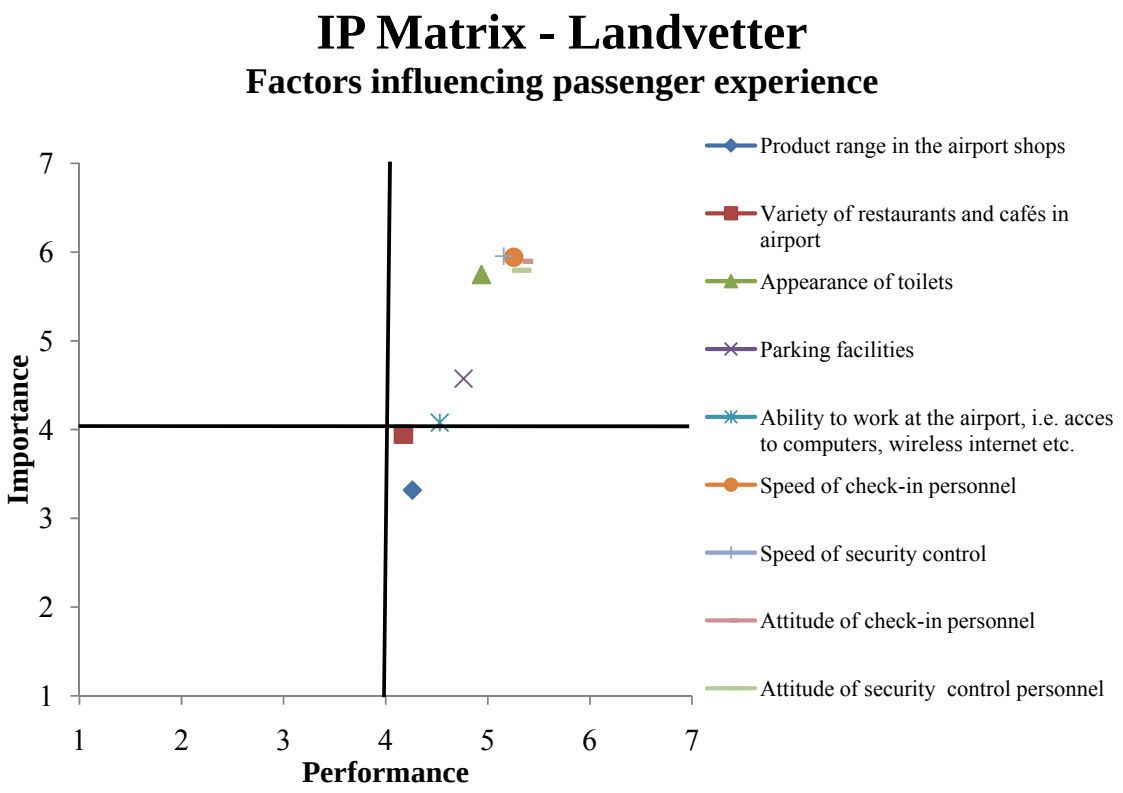

Figure 7.2 IP Matrix for Landvetter

7.2.3 Recommendations for further research

This study is limited to the two airports studied, Keflavikd and Landvetter, but the results can give indications to airports of a similar size and demographics. It would be interesting to understand what other underlying reasons could exist for willingness to be a member of an airport loyalty program. A cost-benefit analysis of introducing an airport loyalty membership program would also be interesting to research as it would complement the results of this study.

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APPENDIX 1: QUESTIONNAIRE

EN GOT

Master Project Questionnaire

I am doing a survey of passengers in Keflavik airport and Landvetter airport in Gothenburg for my Master project in M.Sc. in Tourism and Hospitality Management from Gothenburg University. Thank you for your assistance in filling in this questionnaire. Please fill in as accurately as possible. Hildur Bæringsdóttir: hildur.baringsdottir@hgus.gu.se

How often do you travel in one year? O 0-2 times/year O 3-10 times/year O 11+ times/year

What is your travel purpose today? O Business O Private/leisure

Do you travel for business purposes more than 2 times a year? O Yes O No

Did you use the business lounge in the airport today? O Yes O No

If yes, which one? O SAS/Star Alliance O Novia

Are you a member of an airline loyalty program (frequent flyer)? O Yes O No

If yes, what airline? _____

When did you arrive at the airport today?
O more than 2 hours prior to departure
O 1,5-2 hours prior to departure
O 60-89 minutes prior to departure
O 30-59 minutes prior to departure
O less than 30 minutes prior to departure

How did you check-in today? O Check-in at counter O Self check-in machine O Online

What takes most of your time at the airport? (rank from 1 to 3, 1= most time, 3=least time, 0=not applicable)
__ Finding parking place __ Waiting for check-in/baggage drop __ Going through security control

Did you purchase something in the airport today? O Yes O No

If yes: O from shop O from café/restaurant O from both

If no, what is the reason for not purchasing anything:
O not enough time O nothing appeals to me O no intent to purchase O other:_____

Do you prefer buying tax-free in this airport, compared to other airports?
O Yes O No O Does not matter O what other airport do you prefer for tax-free purchases:_____

What would you buy (product/service) that is not offered at this airport?

Are you missing any particular shop or restaurant brand at the airport?

Satisfaction/Importance ***How satisfied are you with the following?***	Not applicable	Not satisfied						Very satisfied	***How important is this to you (in general)?***	Not important						Very important
Product range in the airport shops	0	1	2	3	4	5	6	7		1	2	3	4	5	6	7
Variety of restaurants and cafés in airport	0	1	2	3	4	5	6	7		1	2	3	4	5	6	7
Appearance of toilets	0	1	2	3	4	5	6	7		1	2	3	4	5	6	7
Parking facilities at the airport	0	1	2	3	4	5	6	7		1	2	3	4	5	6	7
Ability to work at the airport, i.e. access to computers, wireless internet etc.	0	1	2	3	4	5	6	7		1	2	3	4	5	6	7
Speed of checking-in at the airport	0	1	2	3	4	5	6	7		1	2	3	4	5	6	7
Attitude of check-in personnel	0	1	2	3	4	5	6	7		1	2	3	4	5	6	7
Speed of security control	0	1	2	3	4	5	6	7		1	2	3	4	5	6	7
Attitude of security control personnel	0	1	2	3	4	5	6	7		1	2	3	4	5	6	7
What is your overall satisfaction with this airport?		1	2	3	4	5	6	7								

Turn to other side

Would you check-in early (> 2,5 hours) prior to departure

if you received free coffee and small bite to eat?	O Yes	O No
if you received special prices/discount in airport shops and restaurants?	O Yes	O No
if you received special prices/discount on car parking?	O Yes	O No

If an **airport membership program** was offered at this airport that would include access to business lounge, check-in priority, security-check priority, discounts and extra services, would you be interested in being a member for an annual fee? O Yes O No

I have a list of service attributes that could be included in an airport membership program. Please rank the importance of them for you.	Not important						Very important
Access to business lounge	1	2	3	4	5	6	7
Check-in priority	1	2	3	4	5	6	7
Security-check priority	1	2	3	4	5	6	7
Possibility to leave dry cleaning	1	2	3	4	5	6	7
Access to conference center	1	2	3	4	5	6	7
Discount in airport shops and restaurants	1	2	3	4	5	6	7
Airport Assistance services	1	2	3	4	5	6	7
Food/drink bag on arrival	1	2	3	4	5	6	7
Arrival service lounge (including shower facilities)	1	2	3	4	5	6	7
Car park discount	1	2	3	4	5	6	7
Booking availability of parking space in car park	1	2	3	4	5	6	7
Availability of hired parking (long-term)	1	2	3	4	5	6	7
Car cleaning services	1	2	3	4	5	6	7

How much would you or your company pay for a membership that would include these services and possibly more? _____ISK/EUR/USD/GBP per year

Other than the service attributes mentioned above, what should be offered in the airport membership?

_____

Are you a member of an airport membership program? O Yes O No

If yes, where? _____

Background Questions

Age _____ O 16-24 O 25-34 O 35-44 O 45-54 O55-64 O 65+

Sex O Male O Female

Passenger type O Transit passenger O Departing passenger (from Gothenburg as first flight)

Destination _____ O Within EU O Outside EU

Flight type O schedule O charter

Nationality O Swedish O EU O Non-EU O Both EU and Non-EU

Other Comments:

SE GOT

Master Projekt Enkät

Jag gör en passagerarundersökning på Keflavik flygplats (Island) och Göteborg Landvetter flygplats (Göteborg) till min master projekt uppsats i M.Sc. Tourism and Hospitality Management på Göteborgs Universitet. Tack på förhand för din hjälp med att fylla i enkäten. Jag uppskattar att du fyller i den så noggrant som möjligt. Hildur Bæringsdóttir: hildur.baringsdottir@hgus.gu.se

Hur ofta reser ni under ett år? O 0-2 ggr/år O 3-10 ggr/år O 11+ ggr/år

Vad är syftet med er resa i dag? O Affär O Privat

Reser ni för affärsändamål mer än 2 gånger per år? O Ja O Nej

Besökte ni en affärslounge i dag? O Ja O Nej

Om ja, vilken? O SAS/Star Alliance O Novia

Är ni medlem i ett flygbolags lojalitetsprogram (frekvent resenär)? O Ja O Nej

Om ja, vilket flygbolag? _____

När anlände ni till flygplatsen idag?
O mer än 2 timmar innan avgång
O 1,5-2 timmar innan avgång
O 60-89 minuter innan avgång
O 30-59 minuter innan avgång
O mindre än 30 minuter innan avgång

Hur checkade ni in i dag? O Check-in vid bord O Själv check-in dator O Internet check-in

Vad tar mest av er tid på flygplatsen? (rangordna från 1 till 3, 1 = mest tid, 3 = minst tid, 0 = inte tillämplig)
__ Hitta parkeringsplats __ Vänta på incheckningen __ Gå igenom säkerhetskontrollen

Köpte ni något på flygplatsen i dag? O Ja O Nej

Om ja: O från butik O från kafé/restaurang O från båda

Om nej, vad är orsaken för att ni inte gjorde några köp:
O inte tillräckligt med tid O inget lockade mig O ingen avsikt att köpa O annat: _____

Föredrar ni att handla tax-free på denna flygplats, jämfört med andra flygplatser?
O Ja O Nej O Spelar ingen roll O Vilket annan flygplats föredrar ni för er tax-free handel:_____

Vad skulle ni vilja köpa (produkt/tjänst) som inte erbjuds på denna flygplats?

Saknar ni något särskilt butiks- eller restaurangkedja på denna flygplats?

Belåtenhet/Betydelse ***Hur belåten är ni med följande?***	Inte tillämplig	Inte belåten						Väldigt belåten	***Hur viktigt är detta för er?***	Inte viktigt						Väldigt viktigt
Produktutbudet i flygplatsbutikerna	0	1	2	3	4	5	6	7		1	2	3	4	5	6	7
Variation på restauranger/kaféer	0	1	2	3	4	5	6	7		1	2	3	4	5	6	7
Toaletterna	0	1	2	3	4	5	6	7		1	2	3	4	5	6	7
Flygplatsens parkeringsanläggning	0	1	2	3	4	5	6	7		1	2	3	4	5	6	7
Förmågan att arbeta på flygplatsen, dvs. tillgång till datorer, trådlös internet osv.	0	1	2	3	4	5	6	7		1	2	3	4	5	6	7
Hastighet på incheckning	0	1	2	3	4	5	6	7		1	2	3	4	5	6	7
Attityden hos check-in personalen	0	1	2	3	4	5	6	7		1	2	3	4	5	6	7
Hastighet på säkerhetskontrollen	0	1	2	3	4	5	6	7		1	2	3	4	5	6	7
Attityden hos säkerhetskontroll personalen	0	1	2	3	4	5	6	7		1	2	3	4	5	6	7
Vad är er övergripande belåtenhet med denna flygplats?		1	2	3	4	5	6	7								

Vänd till andra sidan

SE GOT

Skulle ni checka in tidigt (> 2,5 timmar) före avgång

om ni fick gratis kaffe och något smått att äta? O Ja O Nej
om ni fick specialpriser/erbjudanden i butiker och restauranger på flygfältet? O Ja O Nej
om ni fick specialpriser/erbjudanden till bilparkering? O Ja O Nej

Om ett **flygfälts medlemskapsprogram** erbjöds på detta flygfält där det skulle ingå tillträde till affärslounge, prioritet vid incheckning, prioritet vid säkerhetskontroll, erbjudanden, rabatter och extra tjänster, skulle ni vara intresserade av att bli medlem för en årsavgift? O Ja O Nej

Jag har en lista på tjänsteattribut som kunde ingå i ett flygfälts medlemskapsprogram. Var snäll rangordna betydelsen av dem för er.	Inte viktigt						Väldigt viktigt
Tillträde till affärslounge	1	2	3	4	5	6	7
Prioritet vid incheckning	1	2	3	4	5	6	7
Prioritet vid säkerhetskontroll	1	2	3	4	5	6	7
Möjlighet att lämna kemtvätt	1	2	3	4	5	6	7
Rabatt i konferenscentret	1	2	3	4	5	6	7
Erbjudanden i flygfältets butiker och restauranger	1	2	3	4	5	6	7
Tjänst till flygfältassistens	1	2	3	4	5	6	7
Matkasse vid ankomst	1	2	3	4	5	6	7
Tjänste lounge vid ankomst (inklusive dusch faciliteter)	1	2	3	4	5	6	7
Bilparkeringsrabatt	1	2	3	4	5	6	7
Tillgång till bokning av parkeringsplats	1	2	3	4	5	6	7
Tillgång till hyrd parkering (långtid)	1	2	3	4	5	6	7
Biltvättstjänst	1	2	3	4	5	6	7

Hur mycket skulle ni eller ert företag betala för ett medlemskap som innefattade dessa tjänster och möjligen flera? _____ SEK/EUR/USD/GBP per år

Förutom tjänsteattributen angivna ovan, vad borde erbjudas i flygplatsens medlemskap?

_____

Är ni medlem i ett flygplats medlemskapsprogram? O Ja O Nej

Om ja, var? _____

Bakgrundsfrågor

Ålder _____ O 16-24 O 25-34 O 35-44 O 45-54 O 55-64 O 65+

Kön O Man O Kvinna

Passagerartyp O Transit passangerare O Avgång passangerare (från Göteborg som fösta avgång)

Avgång till: _____ O Inom EU O Utanför EU

Flygtyp O schema O charter

Nationalitet O Svensk O EU O Icke-EU O Båda EU och Icke-EU

Kommentarer:

IS KEF

Spurningakönnun fyrir meistaraprófsverkefni

Ég er að gera könnun meðal farþega á Keflavíkurflugvelli og Landvetterflugvelli í Gautaborg fyrir meistaraprófsverkefnið mitt til M.Sc. í Ferðaþjónustu- og Gestrisnisstjórnun í Gautaborgarháskóla. Ég vil biðja þig um að fylla út eins samviskusamlega og þú getur. Takk fyrir þátttökuna. Hildur Bæringsdóttir: hildur.baringsdottir@hgus.gu.se

Hversu oft ferðastu á einu ári? O 0-2 sinnum/ári O 3-10 sinnum/ári O 11+ sinnum/ári

Hver er tilgangur ferðar þinnar í dag? O Viðskipti O Einka/skemmtiferð

Ferðastu í viðskiptaerindum oftar en 2 sinnum á ári? O Já O Nei

Notaðirðu Icelandair business lounge í dag? O Já O Nei

Ertu meðlimur í vildarklúbbi einhvers flugfélags (frequent flyer program)? O Já O Nei

Ef já, hvaða flugfélag? _____

Hvenær komstu á flugvöllinn í dag?
O meira en 2 klst. fyrir brottför
O 1,5-2 klst. fyrir brottför
O 1 klst. til 1 klst. og 29 mín fyrir brottför
O 30 til 59 mín fyrir brottför
O minna en 30 mín fyrir brottför

Hvernig innritaðir þú þig í flugið í dag? O Innritunarborð O Sjálf/ur í Innritunarvél O Á netinu

Hvað tekur mestan tíma á flugvellinum? (vægi frá 1 til 3, 1= mestur tími, 3=minnstur tími, 0=á ekki við)

__ Finna bílastæði __ Bíða eftir innritun eða töskuskilum __ Fara í gegnum öryggisleit

Verslaðir þú eitthvað á flugvellinum í dag? O Já O Nei

Ef já: O frá verslun O frá kaffihúsi/veitingastað/bar O bæði

Ef nei, af hverju verslaðirðu ekki neitt:

O ekki nægur tími O ekkert heillar mig O enginn ásetningur um að verlsa O annað:_____

Finnst þér best að versla tax-free vörur á þessum flugvelli í samanburði við aðra flugvelli?

O Já O Nei O Skiptir ekki máli O hvaða annar flugvöllur er betri fyrir tax-free verslun:_____

Hvað myndir þú versla (vara/þjónusta) sem er ekki boðið uppá á þessum flugvelli?

Myndir þú vilja sjá eitthvað sérstakt vörumerki í verslun eða veitingastað á þessum flugvelli?

O Já O Nei *Ef já, hvað?* _____

Ánægja/Mikilvægi ***Hversu ánægð/ur ertu með eftirfarandi á þessum flugvelli?***	Á ekki við	Ekki ánægð/ur					Mjög ánægð/ur	***Hversu mikilvægt er þetta fyrir þig (yfirhöfuð)?***	Ekki mikilvægt					Mjög mikilvægt
Vöruúrval í verslunum flugvallar	0	1	2	3	4	5	6	7		1	2	3	4	5	6	7
Úrval kaffi-vín og matsölustaða	0	1	2	3	4	5	6	7		1	2	3	4	5	6	7
Útlit salerna	0	1	2	3	4	5	6	7		1	2	3	4	5	6	7
Bílastæði við flugvöllinn	0	1	2	3	4	5	6	7		1	2	3	4	5	6	7
Möguleikinn á því að vinna á flugvellinum, t.d. aðgengi að tölvum, internet o.s.frv.	0	1	2	3	4	5	6	7		1	2	3	4	5	6	7
Hraði á innritun í flug	0	1	2	3	4	5	6	7		1	2	3	4	5	6	7
Viðmót innritunarstarfsmanna	0	1	2	3	4	5	6	7		1	2	3	4	5	6	7
Hraði á öryggisleit	0	1	2	3	4	5	6	7		1	2	3	4	5	6	7
Viðmót öryggisleitarstarfsmanna	0	1	2	3	4	5	6	7		1	2	3	4	5	6	7
Hver er heildaránægja þín með þennan flugvöll?		1	2	3	4	5	6	7								

Snúa við blaði

IS KEF

Myndir þú innrita þig snemma (> 2,5 hours) fyrir brottför

ef þú fengir frítt kaffi og smá matarbita? O Já O Nei
ef þú fengir sérstök verð/afslátt í verslunum og veitingahúsum flugvallarins? O Já O Nei
ef þú fengir sérstök verð/afslátt á bílastæðum? O Já O Nei

Ef í boði væri **flugvallarvildarklúbbur** á þessum flugvelli sem myndi gefa þér aðgengi að business lounge, forgang í innritun, forgang í öryggisleit, afslætti og auka þjónustu myndir þú hafa áhuga á því að vera meðlimur með því að greiða árgjald fyrir? O Já O Nei

Ég er með lista af þjónustuþáttum sem gætu verið innifalin í flugvallarvildarklúbbi. Gefðu þeim vægi eftir því hversu mikilvægur hver þáttur er fyrir þig.	Ekki mikilvægt						Mjög mikilvægt
Aðgangur að business lounge	1	2	3	4	5	6	7
Forgangur í innritun	1	2	3	4	5	6	7
Forgangur í öryggisleit	1	2	3	4	5	6	7
Möguleiki á að skilja eftir föt í hreinsun	1	2	3	4	5	6	7
Aðgangur að fundarsölum	1	2	3	4	5	6	7
Afsláttur í verslunum og veitingastöðum flugvallar	1	2	3	4	5	6	7
Séraðstoð á flugvellinum	1	2	3	4	5	6	7
Matar/drykkjarpoki við komu	1	2	3	4	5	6	7
Þjónustu lounge í komusal (með sturtuaðstöðu)	1	2	3	4	5	6	7
Afsláttur á bílastæðum	1	2	3	4	5	6	7
Möguleiki á því að bóka bílastæði fyrirfram	1	2	3	4	5	6	7
Möguleiki á því að leigja bílastæði til langs tíma	1	2	3	4	5	6	7
Bílaþvottur meðan bíll er í geymslu	1	2	3	4	5	6	7

Hversu mikið myndir þú eða þitt fyrirtæki greiða fyrir klúbbkort sem myndi innihalda þá þjónustu sem talin er upp hér að ofan og mögulega meira? _____ ISK/EUR/USD/GBP á ári

Er eitthvað annað sem ætti að vera innifalið í flugvallarvildarklúbbi að þínu mati?

_____

Ertu meðlimur í flugvallarvildarklúbbi? O Já O Nei
Ef já, hvar? _____

Bakgrunnsspurnignar

Aldur _____ O 16-24 O 25-34 O 35-44 O 45-54 O 55-64 O 65+
Kyn O Karl O Kona

Tegund farþega O Tengiflug O Brottför frá Keflavík sem fyrsta flug
Áfangastaður _____ O Innan EU O utan EU
Tegund flugs O áætlunarflug O leiguflug

Þjóðerni O íslenskt O EU O Ekki-EU O Bæði EU og Ekki-EU

Aðrar athugasemdir:

APPENDIX 2: AIRPORT LAYOUTS

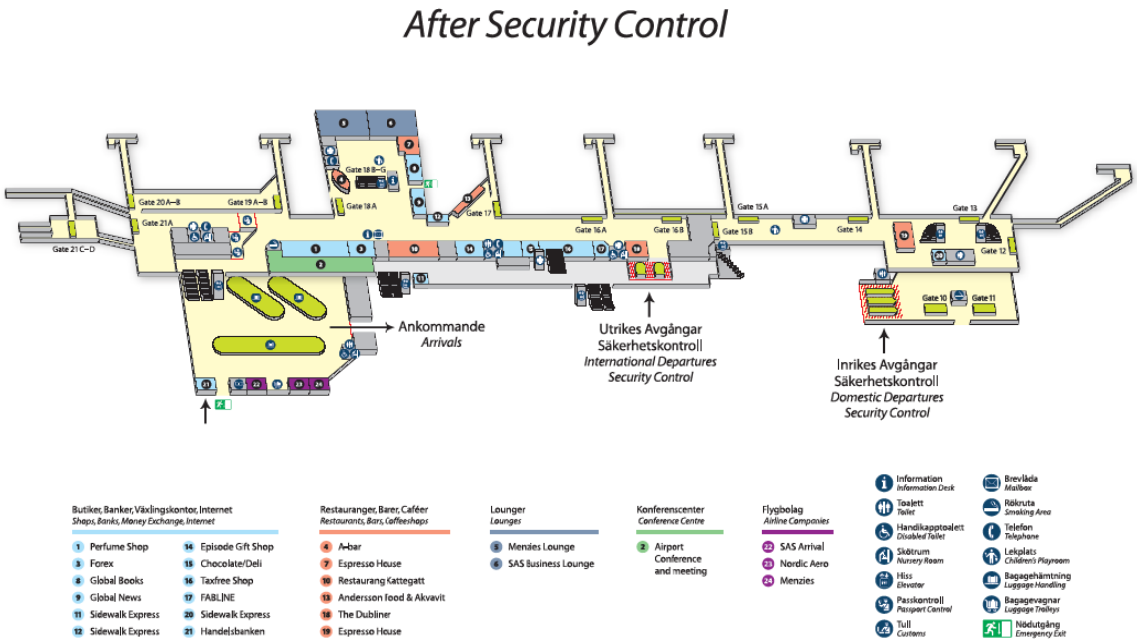


Figure A2.1 Map of Departure Area at Landvetter Airport.
Source: www.lfv.se

Figure A2.2 Map of Departure Area at Keflavik Airport.
Source www.airport.is

APPENDIX 3: CASE PROCESSING SUMMARY

Case Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
1a) Travel Frequency	303	99,3%	2	0,7%	305	100%
1b) Travel Purpose	297	97,4%	8	2,6%	305	100%
1c) Business Purpose	299	98,0%	6	2,0%	305	100%
1d) Use Lounge	295	96,7%	10	3,3%	305	100%
1d*) If yes, which lounge	38	12,5%	267	87,5%	305	100%
1e) Airline Loyalty Program	298	97,7%	7	2,3%	305	100%
1e*) If yes, what airline	305	100,0%	0	0,0%	305	100%
Frequent flyer program 1	154	50,5%	151	49,5%	305	100%
Frequent flyer program 2	56	18,4%	249	81,6%	305	100%
Frequent flyer program 3	14	4,6%	291	95,4%	305	100%
Frequent flyer program 4	3	1,0%	302	99,0%	305	100%
Frequent flyer program 5	2	0,7%	303	99,3%	305	100%
2a) Arrival time today	300	98,4%	5	1,6%	305	100%
2b) Check-in today	298	97,7%	7	2,3%	305	100%
2c) What takes most time - parking	199	65,2%	106	34,8%	305	100%
2c) What takes most time - check-in	242	79,3%	63	20,7%	305	100%
2c) What takes most time - security	242	79,3%	63	20,7%	305	100%
3a) Did you purchase sth	303	99,3%	2	0,7%	305	100%
3a*) If yes, from where	200	65,6%	105	34,4%	305	100%
3a**)If no, why	91	29,8%	214	70,2%	305	100%
3a***)Other reason for no purchase	305	100,0%	0	0,0%	305	100%
3b) Tax-free	295	96,7%	10	3,3%	305	100%
3b*) Other Tax-free	305	100,0%	0	0,0%	305	100%
3c) Missing product/service	305	100,0%	0	0,0%	305	100%
3d) Missing shop/restaurant	305	100,0%	0	0,0%	305	100%
4a) S-Product range	263	86,2%	42	13,8%	305	100%
4a) I-Product range	268	87,9%	37	12,1%	305	100%
4b) S-Restaurant variety	274	89,8%	31	10,2%	305	100%
4b) I-Restaurant variety	268	87,9%	37	12,1%	305	100%
4c) S-Toilets	277	90,8%	28	9,2%	305	100%
4c) I-Toilets	270	88,5%	35	11,5%	305	100%
4d) S-Parking	186	61,0%	119	39,0%	305	100%
4d) I-Parking	236	77,4%	69	22,6%	305	100%
4e) S-Ability to work	198	64,9%	107	35,1%	305	100%
4e) I-Ability to work	249	81,6%	56	18,4%	305	100%

4f) S-Speed of check-in	269	88,2%	36	11,8%	305	100%
4f) I-Speed of check-in	262	85,9%	43	14,1%	305	100%
4g) S-Attitude of check-in staff	266	87,2%	39	12,8%	305	100%
4g) I-Attitude of check-in staff	264	86,6%	41	13,4%	305	100%
4h) S-Security speed	282	92,5%	23	7,5%	305	100%
4h) I-Security speed	270	88,5%	35	11,5%	305	100%
4i) S-Attitude of security staff	283	92,8%	22	7,2%	305	100%
4i) I-Attitude of security staff	270	88,5%	35	11,5%	305	100%
4j) Overall satisfaction	286	93,8%	19	6,2%	305	100%
3e) Early check in - Free coffee	278	91,1%	27	8,9%	305	100%
3f) Early check in - Disc in shops	272	89,2%	33	10,8%	305	100%
3g) Early check in - Disc parking	270	88,5%	35	11,5%	305	100%
5a) Interested in airport memb.prog.	275	90,2%	30	9,8%	305	100%
5b-1) Access to business lounge	266	87,2%	39	12,8%	305	100%
5b-2)Check-in priority	268	87,9%	37	12,1%	305	100%
5b-3) Security-check priority	268	87,9%	37	12,1%	305	100%
5b-4) Poss to leave dry cleaning	266	87,2%	39	12,8%	305	100%
5b-5) Access to conf. center	264	86,6%	41	13,4%	305	100%
5b-6) Discount in shops and rest	264	86,6%	41	13,4%	305	100%
5b-7) Airport Assistance Services	261	85,6%	44	14,4%	305	100%
5b-8) Food/drink bag on arrival	266	87,2%	39	12,8%	305	100%
5b-9) Arrival service lounge	262	85,9%	43	14,1%	305	100%
5b-10) Car park discount	265	86,9%	40	13,1%	305	100%
5b-11) Booking availability of parking	263	86,2%	42	13,8%	305	100%
5b-12) Availability of hired parking	263	86,2%	42	13,8%	305	100%
5b-13) Car cleaning services	266	87,2%	39	12,8%	305	100%
5c) How much would you pay	305	100,0%	0	0,0%	305	100%
5c*) Pay in EUR	142	46,6%	163	53,4%	305	100%
5d) Other offering in membership	305	100,0%	0	0,0%	305	100%
5e) Airport membership program	273	89,5%	32	10,5%	305	100%
5e*) If yes, where	305	100,0%	0	0,0%	305	100%
Age	296	97,0%	9	3,0%	305	100%
Gender	283	92,8%	22	7,2%	305	100%
Passenger Type	288	94,4%	17	5,6%	305	100%
Destination	305	100,0%	0	0,0%	305	100%
Destination EU/nonEU	283	92,8%	22	7,2%	305	100%
Flight Type	284	93,1%	21	6,9%	305	100%
Nationality	295	96,7%	10	3,3%	305	100%
Comments	305	100,0%	0	0,0%	305	100%
Language version	305	100,0%	0	0,0%	305	100%
LAN/KEF	305	100,0%	0	0,0%	305	100%
Time of day	305	100,0%	0	0,0%	305	100%
Day of week	305	100,0%	0	0,0%	305	100%

APPENDIX 4: RESULTS FOR COMMENTS ON MISSING PRODUCTS OR SERVICES AND SHOPS OR RESTAURANTS

Landvetter

3c) Missing product/service	Freq.
Products	
Clothing	4
Electronics	4
A bottle of wine (not allowed for EU citizens)	1
Alcohol	1
Books, "cheap" clothes (not branded by x clothes)	1
Card/board Games (spel)	1
Cell phone charger	1
Cheap Champagne	1
Chocolate and sweets	1
Clothing from nice Swedish fashion brands	1
Flight International Magazine	1
Hygene products in small packaging < 100 ml, that are cheap	1
Jewlery, handbags	1
More child specific present	1
Movie DVD	1
Office supply: paper, pens, computer products	1
Product range in Tax-Free is too small. Want broader variety of cosmetics and perfumes. Also want better prices	1
Second hand, low price alternative	1
Swedish specialties	1
Tax free cigarettes within EU	1
Today´s Financial Times	1
Total missing products	***27***
Services	
Diners lounge	1
Gym	1
Total missing services	***2***
Total	**29**

3d) Missing shop/restaurant	Freq.
Restaurants/cafés	
Burger King	2
Starbucks	2
McDonalds	1
Somehting more "fast-foodish". Too many costly sandwiches.	1
Fast food	1
Cheaper café/food/restaurantchain	1
Subway	1
Any good restaurant would do nicely	1
More variety of food	1
Total commens on missing restaurants/cafés	***11***
Shops	
Body shop	2
Good (lower) prices but unique product range	1
H&M	1
More clothing stores	1
Total comments on missing shops	***5***
General	
Majority of availability is good and satisfying.	1
Total general comments	***1***
Total	**17**

Keflavik

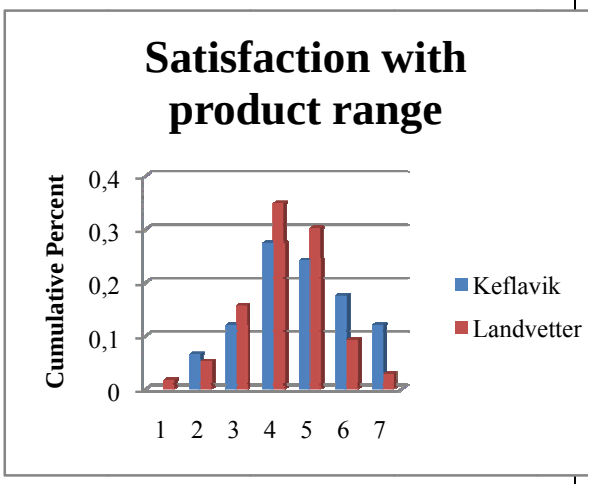
3c) Missing product/service	Freq.
Products	
Better food (hot)	1
Branded bags, Electronics, DVD/CD´s, Cosmetics, Jewelry	1
Children toys e.g. Lazy Town	1
Cintamani	1
Clothing	1
Design Houseware	1
Electronics (cheap)	1
Food and drinks from a store not a café	1
More child specific present	1
More product range in the bookstore	1
Prices too high	1
Real Beer	1
Travel tools or Electronics or DVD/CD´s	1
Variety of Whiskeys	1
Variety/Drug store (medicine, tissues, etc)	1
Total Missing products	***15***
Services	
Time in a relaxation/massage chair (if it would be in a special room)	1
Total Missing services	***1***
Other comments	
Hot food while waiting near the gate (transit passengers!)	1
I would really like a coffee right now! But there is no café open!	1
Warm food	1
Don´t expect an airport to meet all my product needs	1
In stores in Reykjavík	1
Total other comments	***5***
Total	**21**

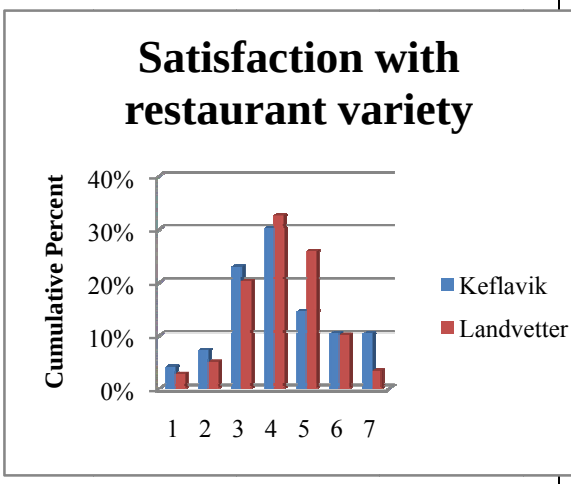
3d) Missing shop/restaurant	Freq.
Restaurants/cafés	
Starbucks	2
A large selection of local food	1
An open café (early morning)	1
Burger King	1
Food/coffee shop should be open more hours	1
Total restaurants/cafés	***6***
Shops	
Cintamani	2
Accessories	1
Dogma	1
Mac costmetics	1
Lazy Town	1
Total shops	***6***
Other comments	
Many	1
Many branded	1
Haven´t had time to look and see	1
Total other comments	**3**
Total	**15**

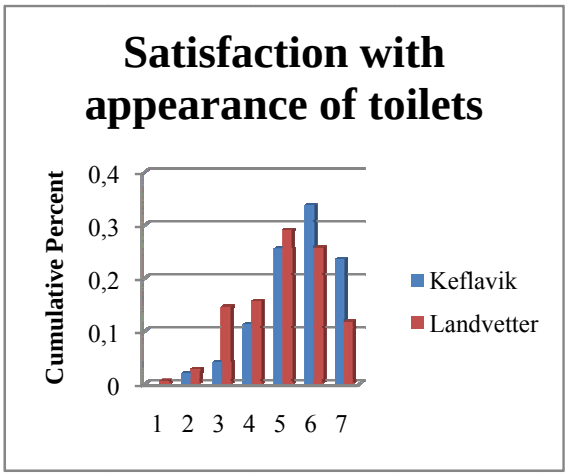
APPENDIX 5: OTHER AIRPORTS PREFERED FOR TAX-FREE PURCHASES

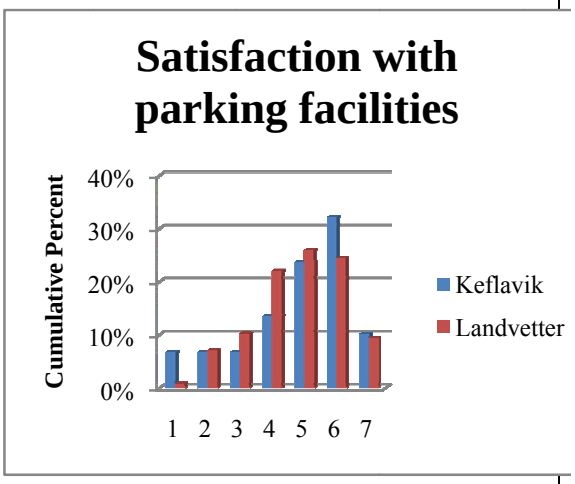
Other Tax-free	Frequency	Percent
Copenhagen	8	21%
Amsterdam	5	13%
Oslo	5	13%
Any	3	8%
London (LHR)	3	8%
Hong Kong	2	5%
Stockholm	2	5%
Barcelona	1	3%
Bigger airports	1	3%
Brisbane	1	3%
Don´t shop	1	3%
Dubai	1	3%
Germany	1	3%
Frankfurt	1	3%
New York	1	3%
Paris	1	3%
Shanghai	1	3%
Transit Airport	1	3%
Total	**39**	

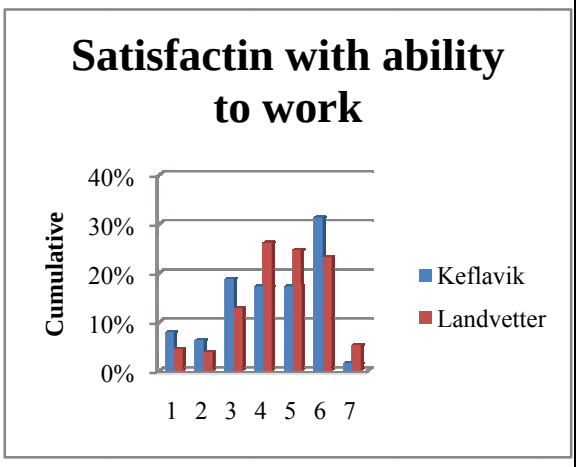
APPENDIX 6: DISTRIBUTION OF SATISFACTION RATINGS

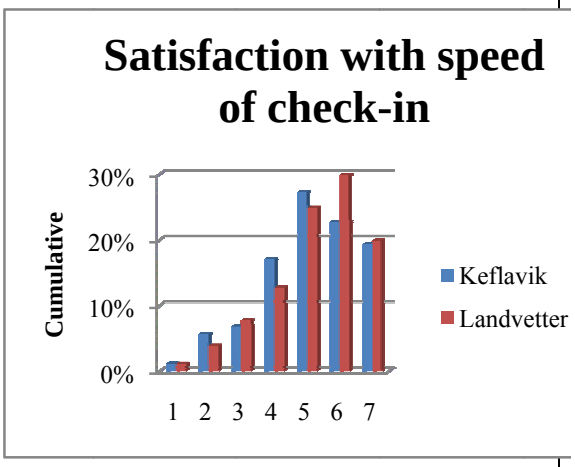


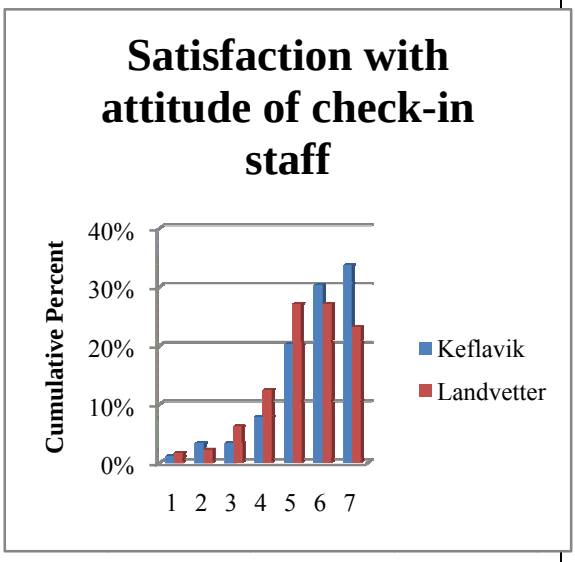


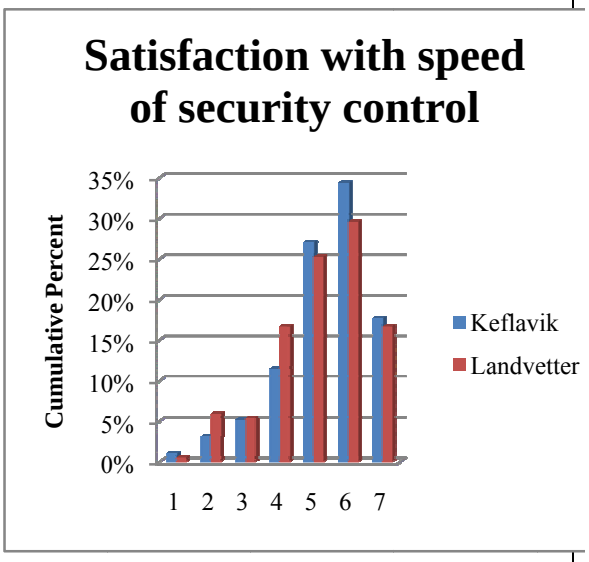


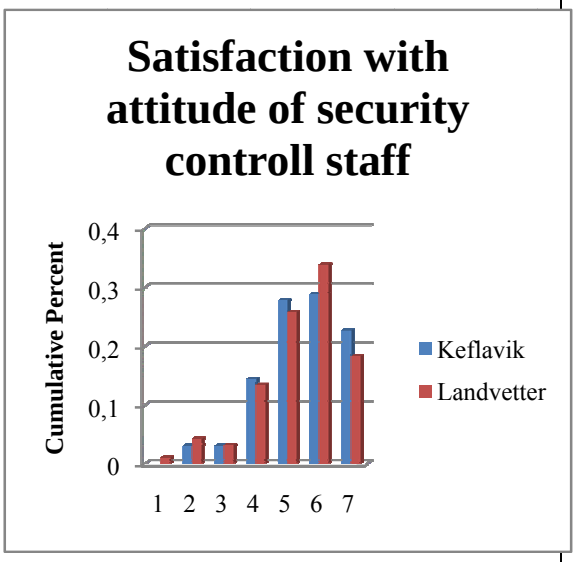


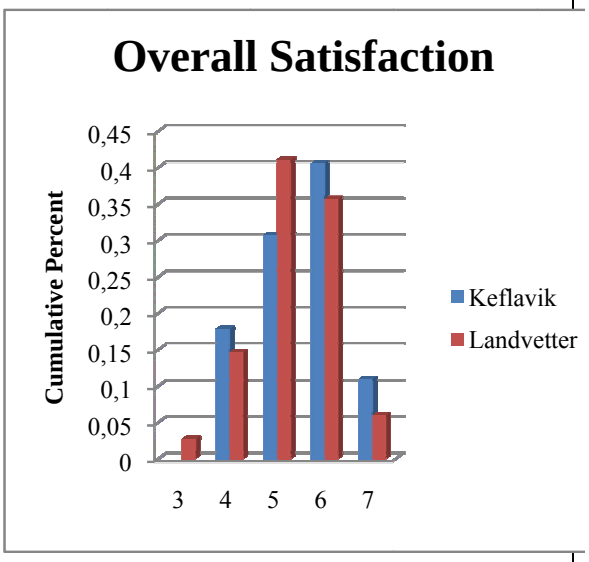




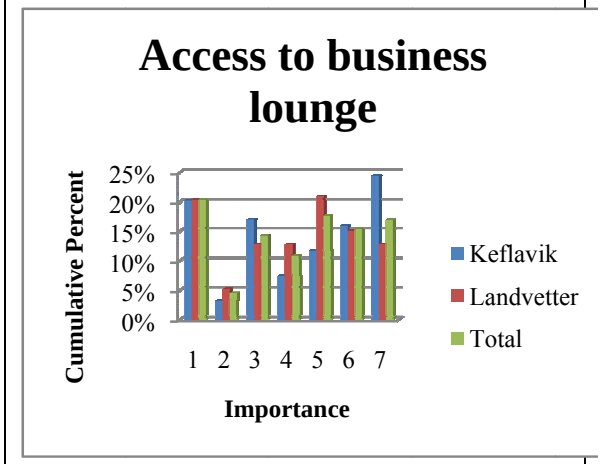

Satisfaction with attitude of check-in staff
Cumulative Percent
40%
30%
20%
10%
0%
1 2 3 4 5 6 7
Keflavik
Landvetter

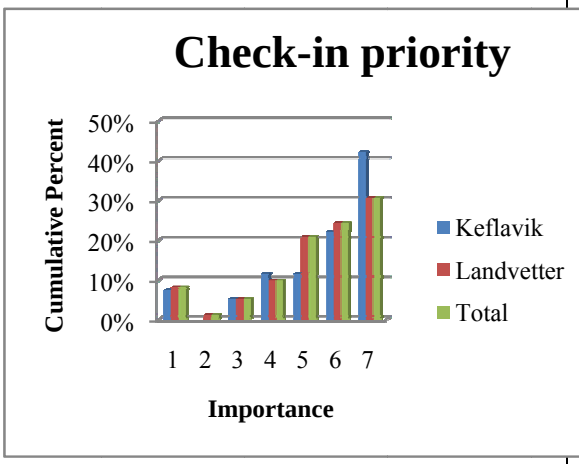

Satisfaction with speed of security control
Cumulative Percent
35%
30%
25%
20%
15%
10%
5%
0%
1 2 3 4 5 6 7
Keflavik
Landvetter

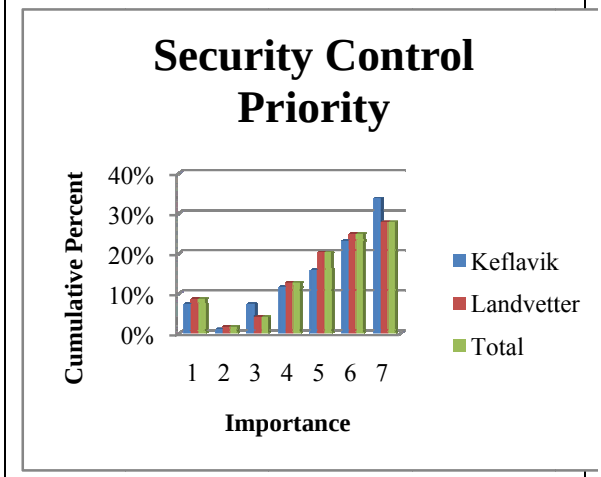

Satisfaction with attitude of security controll staff
Cumulative Percent
0,4
0,3
0,2
0,1
0
1 2 3 4 5 6 7
Keflavik
Landvetter

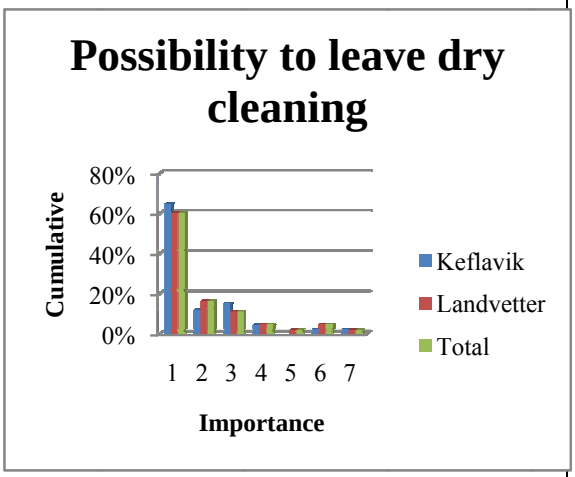

Overall Satisfaction
Cumulative Percent
0,45
0,4
0,35
0,3
0,25
0,2
0,15
0,1
0,05
0
3 4 5 6 7
Keflavik
Landvetter

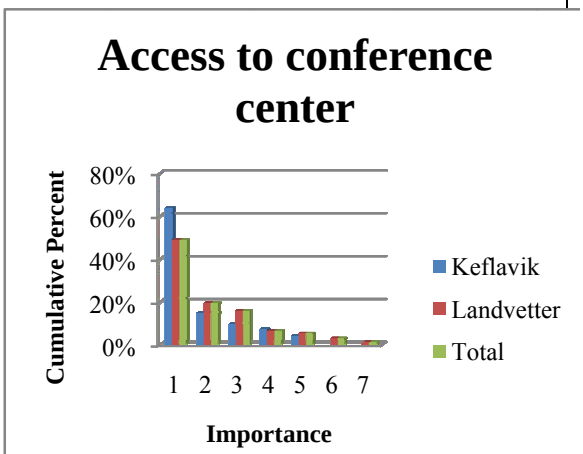
APPENDIX 7: DISTRIBUTION OF IMPORTANCE RATINGS OF SERVICE ATTRIBUTES IN AIRPORT MEMBERSHIP PROGRAM

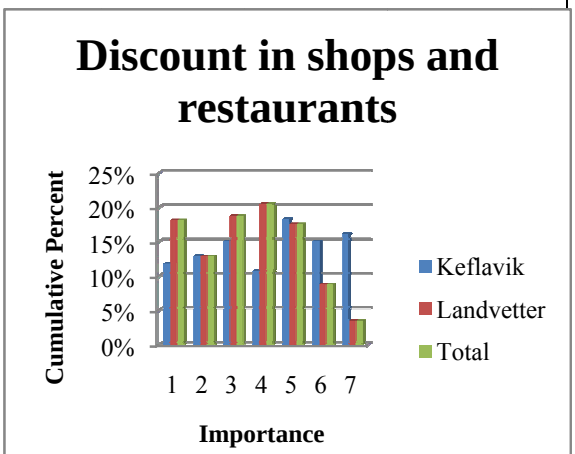


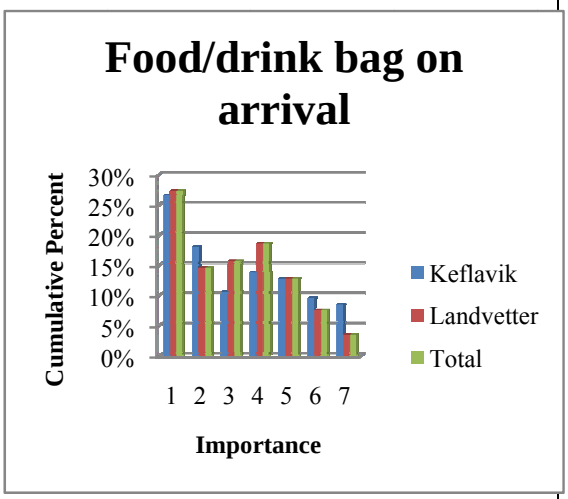


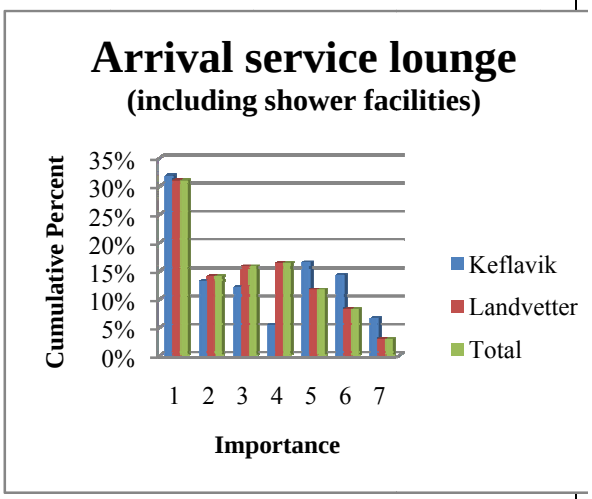


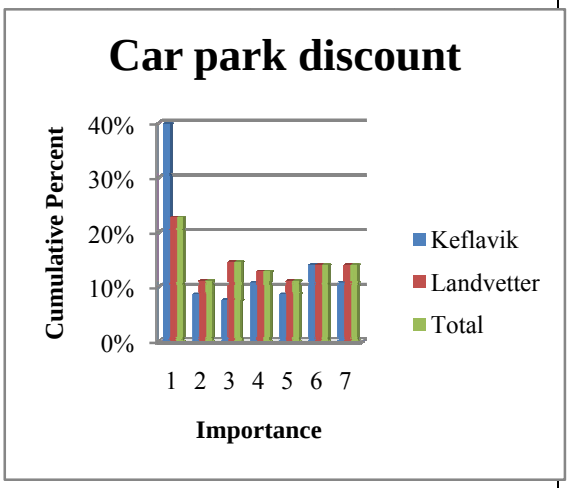


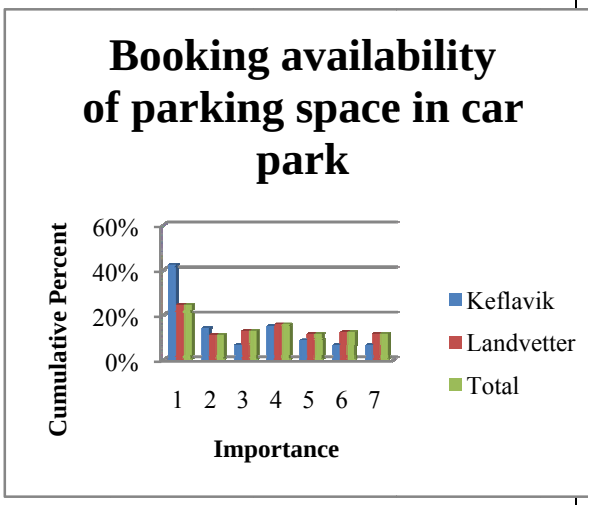

Access to conference center
Cumulative Percent
80%
60%
40%
20%
0%
1 2 3 4 5 6 7
Importance
Keflavik
Landvetter
Total

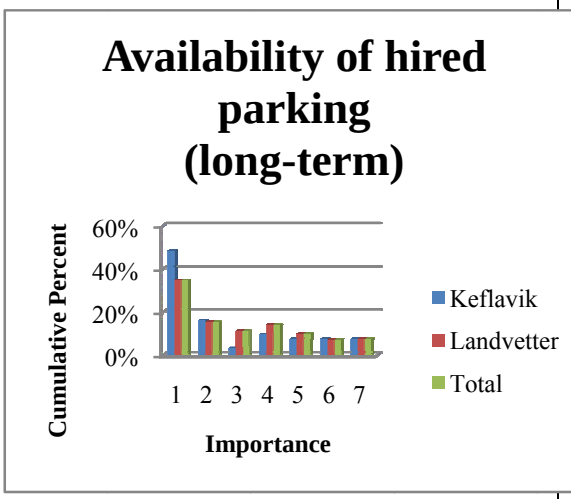

Discount in shops and restaurants
Cumulative Percent
25%
20%
15%
10%
5%
0%
1 2 3 4 5 6 7
Importance
Keflavik
Landvetter
Total

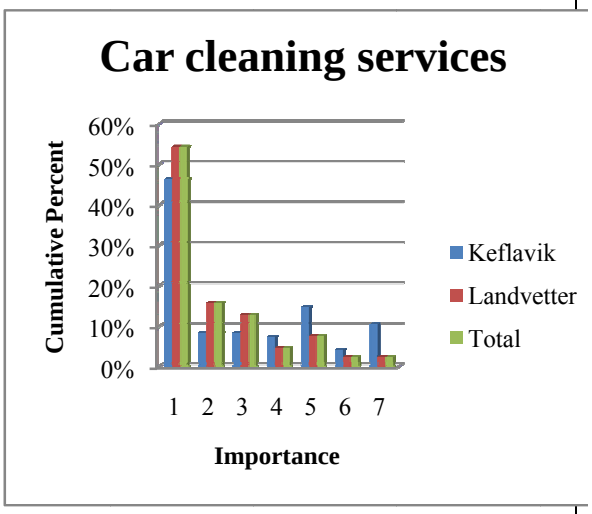

Food/drink bag on arrival
Cumulative Percent
30%
25%
20%
15%
10%
5%
0%
1 2 3 4 5 6 7
Importance
Keflavik
Landvetter
Total


Arrival service lounge
(including shower facilities)
Cumulative Percent
35%
30%
25%
20%
15%
10%
5%
0%
1 2 3 4 5 6 7
Importance
Keflavik
Landvetter
Total


Car park discount
Cumulative Percent
40%
30%
20%
10%
0%
1 2 3 4 5 6 7
Importance
Keflavik
Landvetter
Total


Booking availability of parking space in car park
Cumulative Percent
60%
40%
20%
0%
1 2 3 4 5 6 7
Importance
Keflavik
Landvetter
Total


Availability of hired parking (long-term)
Cumulative Percent
60%
40%
20%
0%
1 2 3 4 5 6 7
Importance
Keflavik
Landvetter
Total


Car cleaning services
Cumulative Percent
60%
50%
40%
30%
20%
10%
0%
1 2 3 4 5 6 7
Importance
Keflavik
Landvetter
Total

APPENDIX 8: GENERAL COMMENTS

Comments
GOT: Discounts should be linked directly to the number of flights per year because that must be win-win. The company must get more in discount than what is charged. Price for lounge, priority etc. 500 SEK per employee that travels more than 3 times a year.
GOT: I fly from here because I live in Göteborg so the wait is rarely long and questions about the services not so relevant. On the other hand they are important in airports where you are waiting for continuing flights (transit).
GOT: Interesting potentially usefull questionnaire but 1) a tendancy to mix general questions about airports with specific questions about this airport. 2) this is my first flight to/from this airport and its general facilities are very good compared to many others, hence the use for special airport membership reduced.
GOT: Only come to Gothenburg once a year on business so some questions not applicable. Check in and security clearance is very efficient compared to most airports I visit.
GOT: Travel much with charter. Take that in consideration when reading my answers
KEF: Great Country to visit. I'll be back.
KEF: I believe fast checkin and secutity should be free, access to lounge should cost money.
KEF: Keflavik airport is among the best. Internet check-in plays a big role.
KEF: Restaurants beyond passport control in Keflavik are poor. -No selection, bad food.
KEF: Securitas should also be in departure area for parking assistance and car wash. Access to internet and computers should be free of charge.

APPENDIX 9: TESTING OF H3

4j) Overall satisfaction * 1a) Travel Frequency Cross tabulation

			1a) Travel Frequency			Total
			0-2 times a year	3-10 times a year	11+ times a year	0-2 times a year
4j) Overall satisfaction	3	Count	1	3	1	5
		% within 1a) Travel Frequency	1,40%	2,50%	1,10%	1,80%
	4	Count	7	20	18	45
		% within 1a) Travel Frequency	9,50%	16,50%	20,00%	15,80%
	5	Count	21	46	39	106
		% within 1a) Travel Frequency	28,40%	38,00%	43,30%	37,20%
	6	Count	36	46	25	107
		% within 1a) Travel Frequency	48,60%	38,00%	27,80%	37,50%
	7	Count	9	6	7	22
		% within 1a) Travel Frequency	12,20%	5,00%	7,80%	7,70%
Total		Count	74	121	90	285
		% within 1a) Travel Frequency	100,00%	100,00%	100,00%	100,00%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	13,865(a)	8	,085
Likelihood Ratio	14,102	8	,079
Linear-by-Linear Association	7,536	1	,006
N of Valid Cases	285		

a 3 cells (20,0%) have expected count less than 5. The minimum expected count is 1,30.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	,221	,085
	Cramer's V	,156	,085
N of Valid Cases		285	

a Not assuming the null hypothesis.

b Using the asymptotic standard error assuming the null hypothesis.

APPENDIX 10: POTENTIAL NUMBER OF MEMBERS AND INCOME FROM THE AIRPORT LOYALTY PROGRAM

	Keflavik	Landvetter
Yes - am interested in airport loyalty program	37%	36%
International passenger volume 2008	1.991.338	3.158.832
Travel Frequency - results from study		
11+ times a year	24%	36%
3-10 times a year	48%	37%
1-2 times a year	28%	27%
Recalculation of passenger volume 2008 based on Travel Frequency		
11+ times a year	43.447	103.380
3-10 times a year	147.053	179.810
1-2 times a year	371.716	568.590
Adjusted passenger volume 2008 (number of passengers)*	***562.216***	***851.780***
Potential number of members	**208.020**	**306.641**
Potential Income given Membership Fee per Annum		
100 EUR	20.802.009	30.664.086
159 EUR	33.075.194	48.755.896

* Adjusted passenger volume for 2008 is the number of people that use the airport after taking in consideration that some passengers travel more than once in one year. The assumption is that the category 11+ times a year is discounted 11 times, the category 3-10 times a year is discounted 6,5 times and the category 1-2 times a year is discounted 1,5 times. Basically assuming that the mean is the same as the average.