

CUSTOMER VALUE OF AIRPORT SECURITY SERVICES

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ABSTRACT

Service quality of airports is evaluated by several studies on a regular basis (ACI, Skytrax, ATRS). Many studies do not or only partly include airport security and border control services as quality drivers of passengers' airport experience. Reasons are that security and border control services are mostly handled by governmental organizations or external security companies rather than by the airports themselves. From a passenger perspective security and border control are steps of the service chain at airports and they can have an impact on travelers' first perception of service culture in a destination. They belong to the procedure at the airport and can have an impact on airport service quality perception. Therefore the underlying study focused on customer value provided by security and border control services at airports.

The results show that most of the participants do not see a relation between the performance of an airport at security check and border control and the service culture of the destination they travel to. There are no specific expectations concerning the treatment at security and border control at the airport. But on one hand the passengers expect more friendly staff and more information about the procedure and what they are allowed to take into the secure area of the airport. On the other hand, the security checks are perceived as strict and some rules and behaviors of security staff are not understandable. Sometimes Passengers do not feel fairly treated by the security department. Passengers feel that they are seen as a potential threat. Passengers think that the treatment in Europe is generally more friendly than in the United States.

Keywords: Security, airport, customer value, services

1 INTRODUCTION

The travel industry faced problems in the mid-eighties due to the hijacking of an airplane near Athens, the seizure of a cruise ship and the violence at airports in Rome and Vienna as well as terrorist bombings in German discotheques and the subsequent military action against Libya (Conant et al. 1988). Travellers were scared about their own security and therefore nearly half of the licensed travel agencies of the United States reported trip cancellations to Europe without rebooking's. Travel agents were pressured to respond quickly and step into the challenge of creating new and innovative marketing strategies to fight against the crisis. The increase of passenger's security, beginning at the airports, was one of the core elements. For instance it was proposed that security checkpoints in and around airports should be increased, more sky marshals be hired and tighter carry-on baggage limits be imposed.

The approach of this paper takes today's developed security and border control services into account. It focuses on the impact on service quality perceived by passengers and moves the discussion from a security (to feel secure at the airport and in the plane) to a customer value of security discussion taking into account how passengers are treated at security or border control. Service quality of airports is evaluated by several studies on a regular basis (ACI, Skytrax, ATRS). Many studies do not or only partly include airport security and border control services as quality drivers of passengers' airport experience. Reasons are that security and border control services are mostly handled by governmental organizations or external security companies rather than by the airports themselves. From a passenger perspective security and border control are steps of the service chain at airports and they can even have an impact on travelers' first perception of service culture in a destination. Furthermore, they belong to the procedure at the airport and can have an impact on airport service quality perception.

Therefore the underlying study focuses on customer value provided by security and border control services at airports. It aims at finding how travelers perceive the value of the interaction at security and border control. It is the question, whether passengers believe that the way the interaction with security and border control happens is according to their expectations and if customer value is created at those interaction points at airports.

2 THEORETICAL FRAMEWORK

Annex 17 to the convention on international civil aviation (ICAO) is the regulatory document for international aviation security standards. The standards stated in the Annex 17, are implemented by member countries of ICAO. The ICAO also published the Aviation Security Training Package to provide standardized material for aviation security education. The major factors influencing the performance of passenger screening tasks are human resources, equipment and facilities as well as work procedures and responsibility (ICAO). However, guidelines, rules and trainings are helpful to educate aviation security employees, but the focus should be set on working conditions

to guarantee fair contracts, adequate working hours and enough rotation within the check-points to create a diversified employment. Eui and Chul (2006) used an approach which provides an insight in existing regulations and how they can influence customer value of security from a security provision point of view.

Martin-Cejas (2004) released a rather general approach focusing more on the traveller and stated that the infrastructure of an airport is the first and the last point of travelers contact within their holiday destination and therefore constitutes the mobility axe of tourists. The activities that happened from travelers' arrival till their departure have to be processed through the airport in an efficient way to minimize the travel time and to enjoy the shopping and leisure time in the commercial area of the airport at the end of their holidays. Due to that fact, it is relevant to evaluate the quality of airport facilities as a factor of tourism service commodity and steadily work for an enhancement.

Kirschbaum (2012) provoked by setting the hypothesis that aviation security professionals behave as they interpret the technology's output, in other words particularly the degree of trust in technology. The results show that employees who completely trust the technology, tended to follow the rules and regulations, whereas those who viewed it as best means of catching offenders tended to bend or break rules if the situation called for it.

Kirschbaum et al. (2011) introduced an analysis, that most of the passengers are unaware of the complex technical and human infrastructure that is in place to mitigate potential security threats, when entering an airport. However, this organizational infrastructure does not automatically guarantee that in case of a crisis, all the key players will make optimal decisions to assure the security of the airport, its employees and passengers. Airport authorities need to maintain the security but this may conflict with airlines wanting to keep to their schedules, passengers demanding little or no delays and service oriented treatment, control tower personnel seeking minimum disruption over air space and service providers want to have easy access for employees. Therefore, a generic behaviour model was designed to measure the airport employee's patterns of behaviour. In conclusion it was found, that decisions are on one hand made on the basis of strict rules governing procedures as well as within a social context framework influenced by the uniqueness of situations. Moreover, security decisions were rarely made by individuals but rather within an interactive group context. However, the degree of variation in compliance may also be related to other factors such as the background of the employees, the cultural setting of an airport and the reward system associated with their jobs. Therefore, it is to assume that airport security can rely solely on employees following "the book" is certainly not the case.

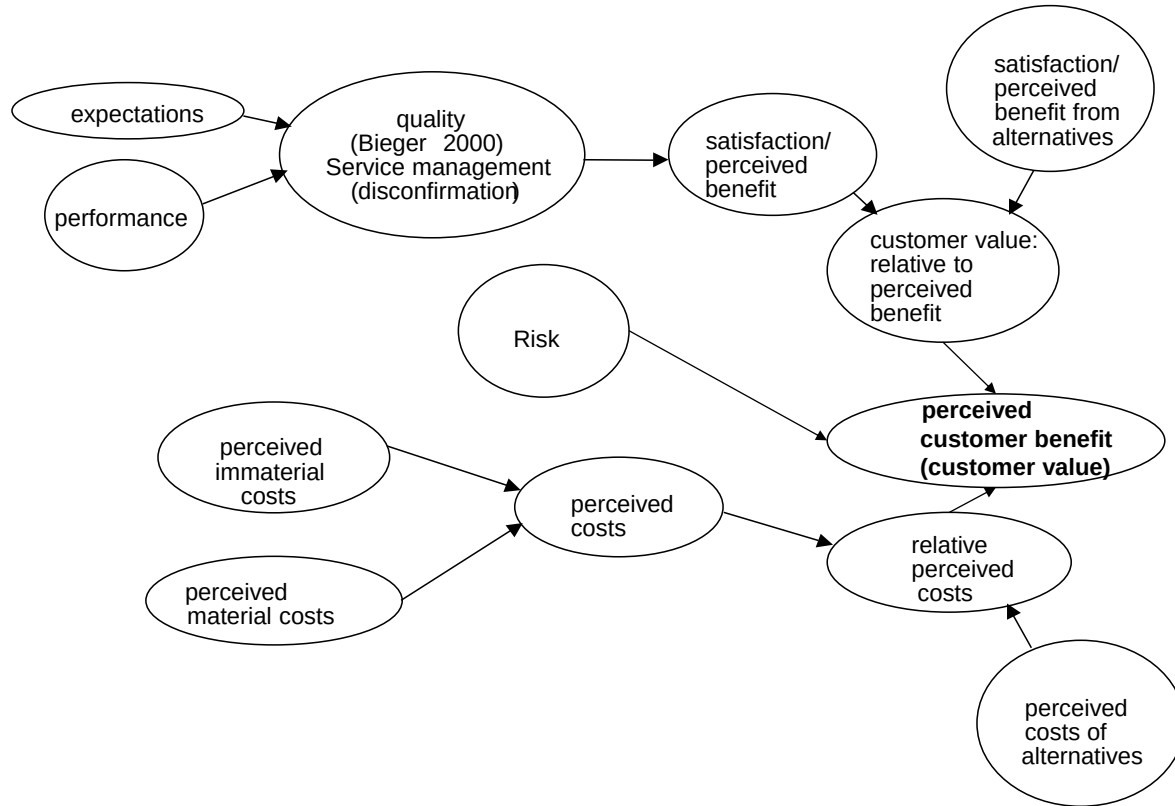
Pütz (2011) raises the question of how individuals avoid interaction in spite of bodily proximity by considering the empirical case of the airport security checkpoint. He introduces his paper by defining that the security checkpoint can be seen as a "non-place". A non-place is a setting without a history and without an individual identity and is defined as a setting where people are

part of a mass of isolated individuals who engage in endeavors with little regard for others. In a non-place people do not form ties and they interact preferably with anonymous technological agents, not with individuals. Pütz clarifies this statement, by adding that at the airport security check, both travelers and screeners have an interest in smooth operations. Therefore, interactions at checkpoints are routinized, which leads to the experience of a “non-place”.

Wittmer, Bieger and Laesser (2007) introduce the concept of customer value as a driving factor for continued growth in demand and eliminate a subversion of the customer-value theory for the air-transport industry. There are a large number of literatures that provides different definitions, conceptualizations and operationalization of customer value. In the past years several researchers have started to develop tools and procedures for the measurement and management of customer benefits generating strategic competitive advantages (Day & Crask 2000, Woodruff 1997, Belz/Bieger 2004, Payne/Holt 2001, Matzler 2000, Gale 1994, Zeithaml 1988, Günter/Helm (2003), Rudolf-Sipötz (2001), Pechlaner/Smeral/Matzler (2002), Huber/Herrmann/Morgan (2001), Parasuraman (1997), Ravalld/Grönroos (1996), Payne/Holt (2001), Kothandaraman/Wilson (2001), Slater (1997), Slywotzky (1997), Laitamöki/Kordupelski (1997), Bieger et al. (2007)). The focus of Bieger et al. (2007) was to determine the influential factors involved in a theoretical framework that includes perceived relative benefits and perceived relative costs. According to Bieger et al (2007) customer value is a factor that effects the growth and demand involved in the product offering of air transportation and in the interaction between the customer and the supplier at a “micro-level”. To be more specific the micro-level concepts involve, demand derived from business and leisure passengers, which is effected by economic development, different business models, tourist needs, and other influences; supply, which is effected by technological development and the various business models of airlines; and of course substitution through transport alternatives such as trains or road transport (Bieger et al 2007). Wittmer and Rowley (2012) adopted the Bieger et al. (2007) model and added a risk component as a third influential factor next to perceived relative benefits and perceived relative costs.

In this paper the adopted customer value construct is understood as the value for the customer's perceived benefit of a service product taking risk into account (Wittmer, Rowley (2012), Bieger et al (2007)). Based on a customer oriented security service development, creating and increasing customer value from security is seen as a key target for product and service development by airports in accordance with the value comprehension of customers.

Figure 1: Customer value framework for air transport



Wittmer, Rowley 2012 in relation to Bieger et al 2007

3 RESEARCH PROCEDURE AND DATA

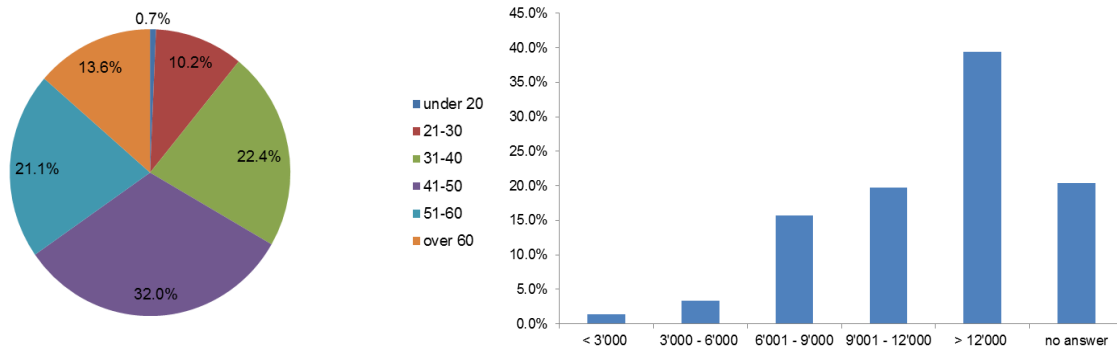
In a first step desk research about the security process at airports was conducted. In a second step a survey concerning the expectation and value of security services was designed for air passengers. The survey included questions concerning the soft factors such as, personal behaviour and friendliness of security personnel and hard factors such as security, passport control as well as the information given in advance. The survey comprised demographic, closed and open questions to ensure getting as much soft information about the value perception of passengers as possible. A few questionnaires were done preliminary as a test personally with passengers at the airport. The survey was then set up as a web survey and published through an online tool (Q-Set, 2012). Furthermore, the survey was provided to professionals, who are members of aviation forums. A usable sample of 89 respondents was achieved for the analysis.

Table 1: Demographics of first survey

Demographic information about respondents (percentage)	
Variables	Values
Gender	Male: 67
	Female: 33
Age	19-29 years: 62
	30-49 years: 26
	50-64 years: 9
	65 years and over: 3
Nationality	Swiss: 89
	Other: 11
Travel frequency per year (outbound and return flight count as one action)	1-3 times: 62
	4-10 times: 21
	11-20 times: 8
	more than 21 times: 9
Reason for travelling (more than one answer possible)	Longer Holiday: 83 respondents
	Short City Trips: 55 respondents
	Friends or Family Visits: 33 respondents
	Business: 30 respondents

As there were some problems with demographic biases (e.g. age groups), it was decided to conduct a second survey. A sample of representatives out of management of companies was selected out of the alumni database of University of St. Gallen in Switzerland. This second research was again based on a web survey which was conducted using Sawtooth software and resulted in 153 respondents. By this the sample ended being a Swiss sample and represents Swiss service quality expectations and cultures.

Figure 2: Demographics of second survey



The sample of the second study shows the largest number of respondent in the age group between 41 and 50 years, as opposed to 19 to 29 years in the first study. Furthermore, the high income classes represent clearly that managers of higher hierarchical levels were interviewed.

The samples do still not allow for representative results but they allow for understanding tendencies about the value creation of security and border control processes at airports. It is interesting though, that the conclusions which can be drawn from both studies are more or less identical.

4 ANALYSIS AND RESULTS

Data were analysed by comparing frequencies, means and looking at cross tabulations of customer value variables. In general, 85% of respondents state that they are satisfied with airport security and passport control. The same counts for the reliability of security and passport control (75% of respondents).

Concerning their feeling when passing through the airport security and passport control, 55% of the respondents stated that they feel indifferent. Furthermore, 64% do not think anything when passing through the airport security and the passport control because they understand the reason behind this process. 34% of the respondents are comfortable with passing through the airport security or the passport control. One possible reason why respondents feel comfortable is linked to the information provision about airport security or passport control. 99 % state that the information about security and passport control is enough. Especially wallpapers in the airport security area are seen as helpful to prepare for the security screening. There is a tendency that older travelers that travel not frequently are more uncomfortable with the security check then others. In addition, the more frequent one travels the less negative feelings appear when being screened at security.

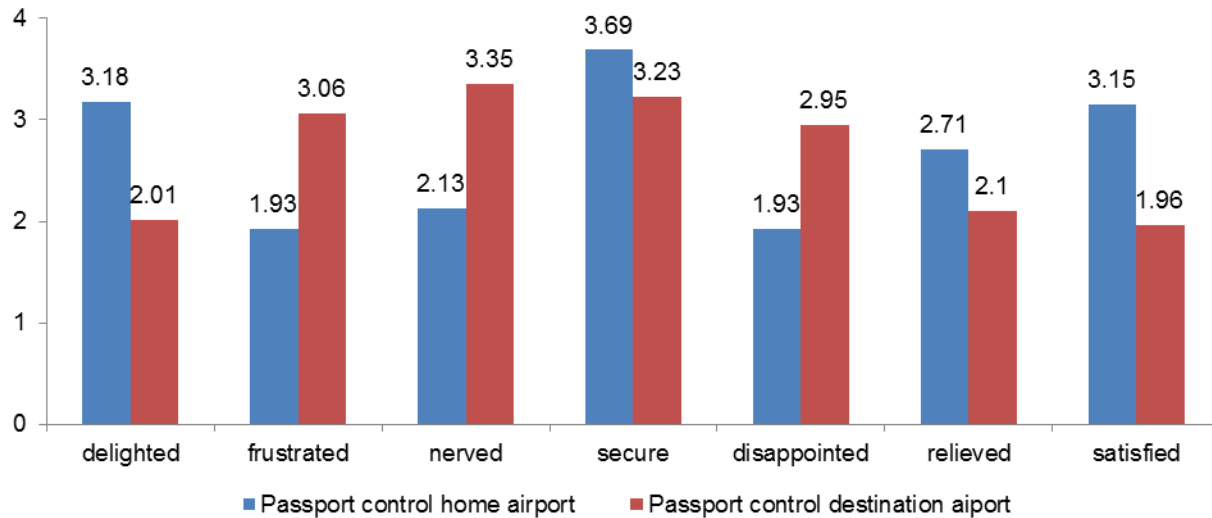
The perception of the atmosphere at the airport security and the passport control is perceived as friendly by 73% of the respondents, while 23% perceived it as rude and further, 4% stated either very friendly or very rude. Moreover, only 22% of respondents aged between 18 and 29 perceived the atmosphere as rude, while 34% of respondents, who are older than 65 perceived it as rude. Therefore, there is an indication that the older the passengers are, the rudier they perceive the atmosphere as security and passport control points.

When investigating the perception of treatment and friendliness by the staff of airport security and passport control, firstly it is indicated that the older the respondents are the higher is the number of respondents who perceive the treatment as rude. However, 79% of respondents perceive the treatment as friendly, while only 17% perceive it as rude. Furthermore, it was surprising to find that a higher number of the “one to three times flyers per year” perceived the treatment as rude of the more frequent travelers “21 and more times flyers per year”.

The expectations towards security services and border control are met for 87% of leisure travelers and for 77% of business travelers. However, more frequent travelers’ (travel more than 11 times per year) expectation is fulfilled for only 47% of the respondents. The expectations differ between leisure and business travelers. One reason for this could be that business travelers travel more frequently and thus have more experiences at different airports and therefore set higher expectations.

Specifically concerning passport control respondents do not like to be asked questions by border control officers. They often do not feel treated correctly and they see differences of treatment and friendliness depending on the nationality of the traveler. When comparing customer value factor results of passport control for the home airport (in this case Zurich Airport) with the destination airport, it is shown that the home airport passport control is creating a higher value than destination airports. As the sample takes mostly Swiss travelers into account this result indicates mainly that Swiss travelers are satisfied with the passport control at their home country compared to the one in other countries. This can be related to less questions and procedures filling in arriving forms, as they enter their country of residence.

Figure 3: Perception of passport control at home and destination airport



7 SUMMARY AND CONCLUSIONS

The results show that most of the participants do not see a relation between the performance of an airport at security check and border control and the service culture of the destination they travel to. There are no specific expectations concerning the treatment at security and border control at the airport. But on one hand the passengers expect more friendly staff and more information about the procedure and what they are allowed to take into the secure area of the airport. On the other hand, the security checks are perceived as strict and some rules and behaviors of security staff are not understandable. Sometimes Passengers do not feel fairly treated by the security department. Passengers feel that they are seen as a potential threat. Passengers think that the treatment in Europe is generally more friendly than in the United States.

Customer value in the sense of a comfortable and friendly interaction at the security and border control processes at airport are taken for granted. However, the non-representative samples of the underlying studies indicate no connection of security and border control treatment and the destination image. 85 % of the respondents are satisfied with security and border control services and that 55 % of the respondents feel indifferent or uninterested when passing through the airport security or the passport control. The perception of the atmosphere at the airport security and the passport control is perceived as friendly by 73% of the respondents. Furthermore, 79% of respondents perceive the treatment of security and border control staff as friendly. The expectations towards security services and border control of leisure travelers are met for 87% and for 77% of the business travelers. However, more frequent travelers' (travel more than 11 times per year) expectation is fulfilled for 47% of the respondents.

Furthermore, there exists a clear difference in perception of airport security and the passport

control between different countries. Especially in the case of passport controls it is seen that travelers value their home airport higher than destination airports' passport control service. Furthermore, depending on the nationality of a traveler, security and border control officers behave often in a more or less friendly manner.

As a final remark it can be said that travelers do not include security and border control into a value set that is defined by benefits and costs of material and immaterial kind, but see it as a different step in the customer value chain at the airport. This conclusion indicates that risk as a part of customer value is seen differently, where the impact on customer experience is not clearly given. Therefore, security and border control services are not seen as crucial drivers of customer value at the airport. They are rather put in relation to risk as a separate issue, which can be understood as a hygiene factor which is taken for granted.

In practice it can be noted, that security and passport control employees create a crucial service to passengers. For this reason they should be educated as service employees next to their formal security or passport control education. Awareness for customers can continuously improve the customer value for passengers at airports, although the passengers have been used to security and border control processes and there is only limited awareness of passengers concerning the service provision of those processes.

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