

Araştırma Makalesi/Research Article

**HAVAALANI GÜVENLİK SÜREÇLERİNDEKİ PROBLEMLER VE
HAVAALANI KULLANICILARI: HAVAALANI GÜVENLİK GÖREVLİSİ
PERSPEKTİFİNDEN TÜRKİYE’DEKİ ÜÇ HAVAALANINDA BİR
ARAŞTIRMA**

*AIRPORT SECURITY PROCESS PROBLEMS AND AIRPORT USERS:
A SURVEY FROM THE PERSPECTIVE OF AIRPORT SECURITY
PERSONNEL AT THREE AIRPORTS IN TURKEY*

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ÖZ: Çalışmanın amacı güvenlik görevlilerine sıkıntı verdiği düşünülen havaalanı kullanıcıları profile ile güvenlik prosedürlerinin belirlenmesi ve bu doğrultuda gerek insan kaynakları yönetimi gibi yönetsel süreçlere gerekse güvenlik prosedürlerinin geliştirilmesine katkı sağlanmasıdır. Bu amaçla yapılan araştırmada anket formu kullanılmıştır. Anket İstanbul Atatürk Havalimanı, Ankara Esenboğa Havalimanı ve İstanbul Sabiha Gökçen Havalimanı olmak üzere, üç havaalanının iç ve dış hatlar terminali kontrol noktasında görev yapmakta olan özel güvenlik görevlisine uygulanmıştır. Elde edilen verilere frekans analizi uygulanarak betimlenmiştir. Yolcu profiline yönelik yapılan analiz sonucunda her üç havaalanında da terminal personelinin süreçlerde büyük oranda sıkıntı yarattığı belirlenmiştir. Bunun yanı sıra yabancı yolculara oranla T.C. uyruklu ve tek başına seyahat eden yolculara oranla aileleri ile seyahat eden yolcuların güvenlik süreçlerinde daha fazla sıkıntıya neden olduğu her üç havaalanı verilerinde de saptanmıştır. En fazla sıkıntı yaşanmasına neden olan güvenlik sürecine yönelik bulguda ise havayolu ile taşınması yasaklı maddelerin tespiti, ayakkabı çıkarma uygulaması ve kapı detektöründen tekrar geçilmesi ilk üç sırada yer almıştır.

Anahtar kelimeler: *Havayolu taşımacılığı, Havaalanı, Havaalanı güvenlik süreçleri, Yolcu profili, Güvenlik görevlisi*

ABSTRACT: The aim of this study is to contribute both to administrative processes, such as human resources management, and to the improvement of security procedures by identifying an airport user profile that is perceived as causing difficulties and security procedures that create problems for security staff. For this purpose, a questionnaire form is used in the study. The questionnaire was administered to private security personnel working at the check points of three domestic and international airport terminals; namely, Istanbul Atatürk Airport, Ankara Esenboğa Airport and Istanbul Sabiha Gökçen Airport. The obtained data is described by applying frequency analysis. As a result of the analysis conducted on passenger profiles, the terminal personnel at all three airports were determined to have been caused great difficulties. It has also been

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revealed that, compared to foreign nationals, Turkish nationals created more difficulties and that, in addition, compared to lone travelers those traveling with their families created more problems at the security procedures at all three airports. The security process was identified as causing the greatest trouble, with the detection of prohibited items, the process of shoe removal and requests for re-entry through walk-through metal detectors found to be the three items cited with the highest frequency.

Key words: *Air transport, airport, airport security processes, passenger profile, security personnel.*

1. INTRODUCTION

Since the first aircraft hijacking in the 1930s, the aviation sector has been the focus of illegal actions. After more than 364 hijackings worldwide between 1968 and 1972, the USA Federal Aviation Administration made it compulsory in early 1973 for all passengers and their luggage to go through security checks, before the International Civil Aviation Organization (ICAO), as the global regulator of aviation, followed suit (Yoo & Choi, 2006:135). After the publication of Annex 17 in 1974, the ICAO's regulatory document on Aviation Security, security processes were initiated in all countries with ICAO membership (ICAO, Annex 17: Security). However, despite the security measures, the aviation sector is still facing threats. According to global terrorism data (Global Terrorism Database), between 1998 and 2001, there were 20 attacks on airports and 31 attacks on airplanes (Stewart, Mueller, 2014:19). Therefore, the need to support aviation with security services is an indisputable fact. Nevertheless, these security services create certain costs that have to be borne by all shareholders, particularly passengers (Rossiter, Dresner, 2004:227).

Security measures that are practised to prevent illegal activities are conducted to determine whether passengers, personnel, or their luggage entering a sterile area have any forbidden items (Salter, 2007:390). Following ICAO requirements, security measures practiced at airports throughout Turkey are performed by following the National Civil Aviation Security Program (NCASP), and are implemented without any significant differences among the airports. An X-Ray machine is the most commonly-employed device for luggage scanning. Enabling security personnel to see items in luggage or bags, X-Ray enables security personnel to detect illegal substances (Schwaninger, Hardmeier, Reigeing & Martin, 2010:169). Furthermore, for such luggage scanning, accompanied by a tomography device to facilitate the detection of explosive items, the Explosive Detection System (EDS) and/or Explosive Trace Detection (ETD) that uses chemical analysis to detect any illegal items (explosives or narcotics) in luggage, are also used (Mclay, Jacobson & Kobza, 2007:74). There are also alternative methods such as using specially trained dogs to detect illegal items. For scanning airport users, walk-through or hand-held type metal detectors are used (Shanks & Bradley, 2004:36-37). In addition to these processes, paralleling the advancing

technology and the need for security measures in the aviation sector, certain other methods are gaining popularity. The most prominent among these methods are biometrics and whole body screening systems. Biometric applications are, in the broadest sense, technologies used to identify an individual using his or her unique personal characteristics (Star, 2002: 253). Biometric systems are used in the aviation sector for passenger and personnel identification processes. It is expected that biometric technology will continue to be used in the aviation sector by increasing its effectiveness and popularity in the future (Haas, 2004: 459). The whole body screening system works by scanning individuals' bodies using low intensity X-rays to determine whether they are carrying illegal items (Elias, 2012: 2). However, during the period when this study was conducted, because biometrics and whole body scanning systems have not yet been implemented in the Turkish Aviation Sector, they were excluded from the present study.

Currently, the use of technology is inevitable to ensure security within the area of aviation. The principal method used to economize the sophisticated processes of aviation is to utilize latest technology and the automation it brings. Technology both minimizes human error stemming from fatigue or stress, and helps to effectively meet the demands created by an increasing capacity, especially in developing countries. However, whatever the nature of the applied technology, the human element is an indispensable factor in all the processes of the aviation sector, as it is in all sectors (Karimbocus, 2009). There are two essential reasons for this. First, despite all the technological support, final decisions are ultimately based on the judgements of security personnel. The second reason is that it shapes passenger perceptions regarding security procedures. This perception created in the passenger may determine the effectiveness of the security practices implemented at airport security check points, which are interactive processes (Kirschenbaum, 2013: 40). Therefore, the provision of security services as an integral component of air transport hinges on the effectiveness of the human element, regardless of the level of technological support given.

Following on, all personnel employed in the aviation industry need to exert effort to ensure security, whether directly or indirectly. Therefore, in Turkey, in line with the ICAO Annex-17, 'Civil Aviation Security Training and Certification Directive' (SHT 17-2), that has been in effect since 2009, all aviation personnel, depending on their specific area of duty, have to receive security training at various levels, as well as increased security awareness. There are twenty modules and a total of fourteen different course headings in the training instruction prepared for this. All personnel working at airports have to have required basic and refresher courses. These include:

- ***Effective Security Culture Training (Course-1)***: Security culture training must be completed by all employees working at an airport.

- **Basic Civil Aviation Security Training (Course-2):** This training must be undertaken by security personnel who are directly responsible for aviation security.
- **Checkpoint Security Practices Training (Course s-3):** This training is delivered to ensure that security staff have a general knowledge regarding X-ray equipment that is employed at checkpoints, and to ensure that they are specialized in security screening and scanning techniques, including pat-down searches.
- **EDS Operator Training (Course s-4):** This course aims to operators with the skills necessary to operate the EDS (Explosive Detection System), which is a hold baggage screening/scanning system, and to be able operators to accurately interpret EDS images.
- **Ground Services Security Training-Passenger (Course -5):** This security course is given to both airline and ground services personnel who are directly in contact with passengers.
- **Ground Services Security Training-Baggage, Cargo (Course s-6):** This involves the training of staff in charge of loading, unloading and reconciliation of passenger baggage and cargo into/out of the hold section of a plane/cargo compartment.
- **Cockpit and Cabin Crew Security Training (Course-7):** With a primary focus on cockpit and cabin crew, this course aims to ensure that personnel responsible for aircraft security will effectively fulfill determined duties and responsibilities for civil aviation security.
- **Procurement Security Training (Course-8):** Aimed at catering companies in particular, this is training delivered to staff who implement security checks on aircraft suppliers and airport suppliers (suppliers of goods offered for sale in duty-free shops or places such as restaurants, cafeterias and suchlike), and to drivers who deliver such supplies to the airport or aircraft.
- **Aircraft Cleaning Security Training (Course -9):** The aim of this training is ensuring that the cleaning personnel have knowledge of preventive security measures at a standard level to protect civil aviation against any illegal acts.
- **Basic Cargo Security Training (Course-10):** This course aims to train security personnel responsible for carrying out security checks on businesses involved in carrying cargo, and drivers who provide access to the airfield or plane.
- **Air Cargo and Mail Scanning Training (Course-11):** This training is given specifically to staff only engaged in cargo scanning, different from operators (security personnel) involved in the screening process of passengers or their belongings and baggage.

- **Security Management Training (Course-12):** This is training that must be undertaken by any authorized manager responsible for security operations of an aviation company.
- **Aircraft Private Security Service and Supervision Training (Course-13):** This is training that security personnel employed by the aircraft private security service and supervision agencies must undergo.
- **ATM/AIM Security Training (Course s-14):** This is training that all personnel working in airport and air traffic units must take.

Despite the training given and the obvious necessity to carry out security procedures, ever-increasing precautions continue to cause problems for all stakeholders in the aviation system. Security personnel are among the most distressed stakeholders. Factors such as a conflict of interest between the airport authority trying to maintain security and the airline wishing to carry out flights on time, cost-orientedness, crowded and noisy work environments, and the need to adapt to developing and changing technology are some of the problems that security personnel have to cope with. However, passengers hurrying to catch their flights increase and exacerbate these problems even more (Eldar, 2010: 36-37).

While passengers purchase transport service from point A to point B, when they arrive at the airport they also encounter many support service requirements; especially security services. Thus, security services top the list of factors that have a negative effect on airport-passenger satisfaction (Sindhav, Holland, Rodie, Adidam & Pol, 2006:234). This finding by Sindhav et al. is also corroborated by a study by Gkritza et al. In their study, the most negative factor relating to passenger satisfaction was found to be the length of waiting in line (Gkritza, Niemeier, Mannering, 2006:219). At many airports, long lines caused by a scarcity of personnel caused by businesses in an effort to reduce costs, may cause security processes to become practices that occasionally cause passengers to miss their flights (Lange, Samoilovich & Rhee, 2013: 153).

From the point of view of security personnel, all airport users, especially passengers and other personnel, are potential menaces, while security personnel are the leading actors of troublesome processes from the passengers' perspective. (Kirschenbaum, 2013:40). Whereas the actions of security personnel may be perceived as personal attitudes by airport users, these actions are actually standard and based on security procedures (Kirschenbaum, Mariani, Gulijk, Lubasz, Rapaport & Andriessen, 2012:72).

All the above mentioned conflicts create problems arising from passenger dissatisfaction in addition to the problems experienced by security personnel. Therefore, this study aims to find answers to the following research questions:

1. What are the processes that cause problems with airport check point security practices according to the perceptions of airport security staff, and do these processes differ among airports?
2. According to the perceptions of airport security personnel, who are the airport users that cause problems during airport check point security practices and do these users vary with airport?

2. METHOD

Within the scope of this study, a questionnaire is used as the data collection method. Aiming to identify an airport user profile, and security procedures that are perceived as problematic for security personnel, the questions included in the survey are derived from a review of literature and semi-structured interviews with airport security managers and trainers employed at airports where the surveys were conducted. Through the semi-structured interviews, data regarding the general profile of airport users and their general expectations were collected, and specific information regarding the most frequently flying airlines and their major domestic/international flight points was obtained.

For the data analysis, a statistical method is employed. For questions that were asked to discover the demographics of security personnel, such as gender and work experience that might have an effect on their perception of the processes, and airport user profile that is thought to trouble security personnel and to determine security procedures, descriptive analysis is used.

In order to find answers to the research questions, questionnaires were given to private security personnel working at domestic and international terminal check points of Istanbul Atatürk Airport (in 2014), Ankara Esenboğa Airport (in 2014) and Istanbul Sabiha Gökçen Airport (in 2016). A full counting method was used in the study. Resulting from negotiations and revisions, the questionnaire form was made available to all personnel working at check points through group chiefs at all of the airports. The process of completing the questionnaires was conducted on a voluntary basis. As a result, 919 valid questionnaires out of 923 returned questionnaires for Atatürk Airport, 334 valid out of the 341 returned for Esenboğa Airport, and 347 valid questionnaires out of the 365 returned for Sabiha Gökçen Airport were included in the analysis.

3. FINDINGS

It would be useful to present brief information here on the airports where the survey was conducted in order to provide an understanding of the context of the findings before analyzing the data obtained from the survey. The survey form was implemented at Istanbul Atatürk Airport, Ankara Esenboğa Airport and Istanbul Sabiha Gökçen Airport. In 2016, Istanbul Atatürk Airport, which is Turkey's largest hub airport, served approximately 61 million passengers (41,9 million international and 19,3 million domestic). Ankara Esenboğa Airport is an airport where a higher number of commercial or bureaucratic passengers are served due to

its location in the capital and where flights for pilgrimage (Hajj) are frequent. Esenboğa Airport served approximately 12 million passengers, including 1.5 million international and 10.5 million domestic, according to the data for 2016. Sabiha Gökçen Airport is Istanbul's secondary airport. It is an airport preferred by low-cost airlines. Sabiha Gökçen Airport served approximately 28 million passengers, of which 9,5 million flew on international and 18,5 million on the domestic routes, according to 2016 statistics (<http://www.dhmi.gov.tr/istatistik.aspx>).

Of the participating security personnel working at Atatürk Airport (from here on referred to as 'IST') 401 (43,6%) are female and 511 (55,6%) are male. Of the security personnel working at Esenboğa Airport (from here on referred to as 'ESB') 145 (43,5%) are female and 188 (56,5%) are male. Of the security personnel working at Sabiha Gökçen Airport (from here on referred to as 'SAW'), 156 (45,0%) are female and 191 (55,0%) are male. For all three airports, the fact that there is an even distribution between the participants in terms of gender minimizes the effect of any difference between males and females in the results obtained.

13,4% of the participants from the IST airport had been working in this position for less than one year, while the highest percentage (41,5%) is made up of workers with one to five years experience. Ranked second, the next highest percentage of workers (37,8%) are those with six to ten years experience. While participants with eleven to fifteen years experience is 6,1%, the percentage of participants with longer than fifteen years experience is 1,1%. Of the ESB airport participants, 14,7% had been working in this job for less than one year, while those who had been working in this position for six to ten years account for the highest percentage (52,7 %). The second highest percentage is the workers with one to five years of experience, making up 28,3% of the participants. While participants with eleven to fifteen years experience is 3,9%, the percentage of participants who had been working for longer than fifteen years is 0,3%. While 36,0% of SAW airport participants had been in this occupation for less than one year, the largest proportion (37,5%) is made up of employees with one to five years experience. The ratio of participants who had six to ten years work experience is 20,5%. While the ratio of participants with eleven to fifteen years experience is 5,5%, the ratio of the workers with more than fifteen years is 0,6%. For all three airports, when the distribution of the participants' length of professional experience is considered, it is deemed sufficiently long for them to be aware of occupational requirements and to perceive trouble encountered during their line of work.

To determine troublesome airport users, the participants were asked, 'Which profile of passenger(s) indicated below cause(s) trouble or problems in security

processes?’ The options for this question were given beneath the question and the participants were told that they could indicate more than one option.

Based on a literature review, the given options were prepared in a passenger-oriented way. However, in the preparation stage of the survey, content during interviews with airport security managers and trainers, it was found that airport or airline personnel may also cause serious distress. After the meeting, along with making additions to passenger profiles, aimed towards measuring trouble-making for personnel, ‘terminal personnel’ and ‘flight crew’ options were added to the existing ‘other’ option.

In light of data obtained from all three airports, the factors found to be troublesome in terms of airport user profile are presented in the table below (Table-1).

Table-1. Percentage Distribution Of Troublesome Airport Users

| Airport User | | Percentage | | |
|--------------------|---|------------|------|------|
| | | IST | ESB | SAW |
| Personnel | Terminal personnel | 70,3 | 43,4 | 47,3 |
| | Flight crew | 25,0 | 6,9 | 12,4 |
| Nationality | Passengers of Turkish nationality | 48,3 | 19,5 | 43,8 |
| | Passengers of Turkish nationality who live abroad | 45,8 | 35,3 | 36,9 |
| | Passengers of foreign nationality | 7,0 | 12,0 | 17,3 |
| Gender | Female passengers | 32,2 | 48,5 | 29,7 |
| | Male passengers | 32,4 | 40,7 | 47,8 |
| Travel Type | Passengers traveling with friends | 15,7 | 20,7 | 26,2 |
| | Passengers traveling alone | 10,1 | 13,2 | 17,0 |
| | Passengers traveling with family | 29,4 | 38,3 | 47,3 |
| | Other | 5,9 | 11,4 | 15,9 |

When personnel are analyzed as airport users, it is clear that terminal personnel are perceived as more troublesome than flight personnel at all three airports. The results show that the majority of IST airport security personnel experience problems with terminal personnel, and a remarkably high number have problems with flight crews. According to the ESB airport participants, terminal personnel rank second for causing problems. At SAW airport, terminal staff rank second (male passengers in first place with 47,7%, and terminal staff with 47,3% in second) with a slight difference. The rate of security personnel who think that flight personnel cause trouble is lower at SAW airport than at IST airport and is higher than ESB airport. This data, obtained from all three airports for personnel, in particular terminal staff who are supposed to have aviation security awareness, is quite surprising.

In interviews with airport security managers and trainers, it was reported that the usual troublemakers are mostly passengers of Turkish nationality on domestic flights, and on international flights they are mostly passengers of Turkish nationality who live abroad. The results obtained from the IST research support this conclusion. Passengers with Turkish nationality and passengers with Turkish nationality who live abroad rank second and third respectively in terms of being perceived as trouble-making at IST airport. Compared to IST airport, passengers with Turkish nationality using ESB airport are considered less troublesome. However, the percentage of ESB security personnel participants who think that passengers with Turkish nationality who live abroad cause problems is similar to that of the IST airport participants. In the ESB data, the participants who think that passengers with foreign nationality cause problems outnumber those of IST. At SAW airport, Turkish passengers rank third, and Turkish-nationality passengers living abroad rank fourth. At SAW airport, Turkish passengers are reported as being more troublesome, with a rate close to IST airport, but at a higher rate than ESB airport. The difference between the three airports can be considered to arise from the fact that ESB passengers mainly consist of business travelers. At SAW airport, rates for passengers with Turkish nationality who live abroad are similar to ESB airport, and lower than IST airport.

The data from IST airport does not indicate any significant difference between male and female passengers' perceived trouble-making. Considering the equal distribution of participants in terms of gender, this may be due to the requirement that female passengers are searched by female security personnel and male passengers are searched by male security personnel.

An analysis performed on the basis of gender reveals that female passengers rank highest on the list of airport users perceived as problematic at ESB airport. Female passengers top the list of trouble-makers in the ESB airport passenger profile. Considering the fact that this airport is often busy with pilgrimage flights, female passengers can be said to experience problems due to their headscarves (hijabs). Most of the responses provided to the open-ended 'other' option for the question, 'In which of the following processes have you often encountered or witnessed negative incidents with other passengers?' indicate that headscarved passengers encounter problems during search processes or removal of their overcoats. As mentioned earlier, the ESB airport participants rank terminal personnel second, and male passengers third. The number of those who think that passengers traveling with their families create problems is also significantly high. Judging by the responses given to the open-ended 'other' option, the majority of male passengers that cause problems can be inferred to be traveling with their families and create problems due to their instinctive protective feelings for their families.

At SAW airport, male passengers are ranked top of the list of troublesome passenger profiles. Most of the responses provided for the open-ended 'other' option under the question, 'During which of the following processes have you encountered or witnessed the highest number of negative incidents with passengers?' report that male passengers traveling with their families or wives cause trouble with their behavior intending to protect their children or wives. This finding is supported by the ranking of passengers traveling with family in second place.

At all three airports, there is a perception that passengers traveling with their families are more troublesome than those who travel alone. Those feeling responsible for their relatives or being anxious about their comfort, especially individuals with children, can be said to be more negatively affected by security measures, leading to less customer satisfaction.

The 'other' option given for the question aimed at determining the type of bothersome passenger was marked and explained by 5,9% of security personnel at IST airport, 11,4% of security personnel at ESB airport and 15,9% of security personnel at SAW airport. Overall, data gathered from the 'other' option for all three airports can be grouped under the following headings:

- Passengers traveling with their children being reluctant to let their children walk through security scans (IST/ESB/SAW)
- Bureaucrats (ESB)
- Illiterate passengers (IST)
- Passengers of foreign nationality who cannot speak English (IST)
- Senior executives (ESB)
- Passengers from certain countries, (country names indicated) (IST/SAW)
- Passengers with high income (IST/ESB/SAW)
- Headscarved passengers (ESB)
- Passengers from certain professions (professions indicated) (IST/ESB/SAW)
- Passengers running late for their flights (IST/ESB/SAW)
- Intoxicated passengers (IST/ESB/SAW)
- Passengers with health problems (SAW)
- Relatives seeing off passengers (Pilgrimage or Military Service) (SAW)
- Relatives of staff working at the terminal (SAW)
- Passengers with VIP relatives (SAW)
- Elderly and disabled passengers (SAW)

In order to determine the security processes that cause problems for passengers, the question, 'During which of the following processes have you encountered or witnessed the highest number of negative incidents with passengers?' was asked. The participants were told that they could mark more than

one option. Some of the options have been added to the post-interview research question after the interviews with airport security managers and trainers.

Table-2. Troublesome Processes And Their Percentage Distribution

| Process causing a negative incident | Percentage | | |
|---|------------|------|------|
| | IST | ESB | SAW |
| Detection of an illegal substance forbidden to be carried | 70,3 | 76,3 | 80,7 |
| Removal of shoes | 61,0 | 82,6 | 59,1 |
| Being asked to go through the walk-through detector a second time | 55,0 | 50,9 | 65,1 |
| Hand-search of passengers who have triggered a Random-Search alarm | 40,0 | 12,9 | 25,9 |
| Being asked to open baggage | 34,3 | 57,5 | 57,3 |
| Being asked to place baggage in an X-Ray device spaced and horizontal | 13,1 | 30,8 | 40,9 |
| Other | 4,7 | 6,3 | 8,1 |

‘Detection of an illegal substance that is forbidden to be carried’, ‘Removal of shoes’, and ‘Being asked to go through the walk-through detector a second time’ are reported by IST airport security personnel as the top three security processes that cause trouble. These three processes match those reported by security personnel at SAW. However, participants at SAW rated ‘Being asked to go through the walk-through detector a second time’ second’, and ‘Removal of shoes’ third. On the other hand, ESB security personnel rated ‘Removal of shoes’ first, and ‘Detection of an illegal substance that is forbidden to be carried’ second, and ‘Being asked to open baggage’ as the third most troublesome process.

The ‘other’ option in the questionnaire was marked and explained by 4,7% of security personnel at IST airport, 6,3% of security personnel at ESB airport, and 8,1% of security personnel at SAW airport. The data obtained from the ‘other’ option can be subsumed under the following headings:

- The existence of the terminal entrance security point (IST),
- Being asked to remove alarm-triggering metals such as belts, accessories, change coins (IST/ESB/SAW)
- Passengers finding the applications time-consuming (ESB)
- Asking passengers to unpack their laptops and put them in a separate tray (IST/ESB)
- Reluctance of personnel to show their apron ID card or other relevant ID (IST)
- Reluctance to pass child passengers through walkthrough metal detectors (SAW)

- Reluctance to remove babies from their strollers during screening (SAW)
- Reluctance to go through a walkthrough metal detector due to health problems (despite the absence of a medical report to confirm it) (SAW)
- Increasing wait-time in the line due to lack of adequate security personnel (SAW)

4. CONCLUSIONS AND RECOMMENDATIONS

According to the study findings, at all three airports the terminal personnel are the profile of airport users thought to create serious trouble. According to the training requirement stated in the ICAO Annex-17, all personnel employed at an airport are obliged to receive security training. However, according to the study results, it can be concluded that such training has not achieved the desired outcomes. The aimed security awareness efforts can become more effective with supportive measures (rewards or disciplinary policies) of all the organizations and institutions that participate in airport activities. Therefore, it is vital for airport authorities and organizations to co-ordinate.

While the data from all three airports is similar, there are some differences. Thus, it would not be wrong to state that similar studies at different airports in different countries may yield different results. However, it is possible to say that the finding that passengers with Turkish nationality especially constitute a major part of the problems at both airports may be due to their having the comfort of speaking the same language or of being in their own country. Nonetheless, the habit of obeying rules is directly related to culture. Therefore, it would not be surprising to obtain similar results from a study conducted in a country that has a culture similar to that of Turkey.

Studies exist in the relevant literature concerning the negative effects of increasing security measures. However, these negative effects becoming a response or a type of response may also be related to the personality type of the passenger, his/her culture, with whom he/she is traveling, or his/her travel purpose or frequency, as in this study the data from all three airports show that passengers traveling with their families are perceived as more troublesome than those traveling alone. Similarly, compared to the data from IST and SAW, in the ESB data, the reason women are perceived as more troublesome is related to the purpose of their travel. The participants at ESB airport underscored that female passengers traveling for pilgrimage (Hajj) tend to cause more problems in the security processes. Still, with such data at hand, whether these factors play a role in the behavior of individuals and, if affirmative, to what degree they have an effect on their behavior can only be found through an in-depth study of travelers.

Based on the results of the IST survey, 'Travelers of foreign nationality who cannot speak English' is a finding that is drawn from explanations provided for the 'other' option, although no such statement was reported in the surveys conducted at

ESB or SAW. This can be explained by the fact that IST airport is a genuine hub, and has a truly diverse international passenger profile.

As a result of the surveys performed at all the three airports, the common findings elicited from the explanations provided for the 'other' option are, 'Families traveling with children being reluctant to let their children walk through security scans', 'Passengers with high-level income', 'Passengers from certain professions', 'Passengers running late for their flights', and 'Intoxicated passengers'. It is possible to explain these common passenger profiles being determined as troublemakers in various ways. 'Families traveling with children being reluctant to let their children through the walk through security scans' can be attributed to their being frequent fliers and being closely acquainted with security processes. 'Passengers with high-level income' and 'Passengers from certain professions' reports can be explained by cultural factors and viewing air travel as an indicator of prestige. 'Intoxicated passengers' can be explained by the negative effects of alcohol on personality, and 'Passengers running late for their flights' can be seen as a result of viewing the security processes as an inconvenient, complicating factor in the basic service of reaching from a certain point of departure to a certain point of destination.

Detection of prohibited items was reported to be a highly bothersome process by the participants at all three airports. This can be associated with cultural structure and flight frequency. It is likely that frequent fliers have a greater awareness of the need for such security practices based on their higher degree of travel experience. Furthermore, the relatively recent introduction of a limitation on liquids, compared to other security processes, may have influenced this finding.

Although not reported in surveys conducted at IST or SAW, 'Processes being found as time-consuming by passengers' is a finding that was found through the surveys at ESB. This may have resulted from the fact that, overall, ESB passengers are business travelers or bureaucrats whose time is precious. While not reported in the surveys conducted at IST or ESB, the 'other' option in the SAW surveys reveals the finding that, 'Problems arising from longer waits in line due to insufficient number of security staff'. This can be ascribed to the fact that IST and ESB security services are provided by the same company, whereas SAW security services are delivered by a separate company, with different operational policies.

In light of the study findings, in order to resolve inconveniences and problems experienced, essentially, informative/educational work on security procedures and flight processes should be conducted at airports, in particular through visual themes to raise passenger awareness regarding these issues. Furthermore, training security staff regarding types of passengers, their priorities, and the negative security outcomes that may arise from these priorities will play a vital role in the effective management of these procedures by security personnel.

Mentioned in the literature review as being one of the most important factors in passenger dissatisfaction, the negative effects of security procedures can thus be minimized and the effectiveness of security measures thereby optimized.

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