



Overview of the current and future job market in the aviation industry

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Abstract

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<p>The aviation industry constantly undergoes various changes. Due to these shifts, employment as a significant part of aviation is greatly influenced. Furthermore, restructuring the business models pushes the modifications among current job positions, including related responsibilities and modified skills, affecting employee training. Besides, more new vacancies might be potentially developed. Therefore, various changes might cause some challenges for the stakeholders.</p> <p>Due to the growing demand from industry, the present thesis has been developed in collaboration with the International Air Transport Association (IATA) to overview and compare present and upcoming job markets. This thesis aims to research current and future job opportunities in the aviation industry, providing a comprehensive view of the various skills and training processes in the aviation industry. Key goals include investigating the current situation on the job market regarding skills, responsibilities, requirements, and training. In addition, defining the potential changes and their drivers in the industry is one of the critical topics in the study. The final objective is to research the future situation about skills, responsibilities, requirements, and training.</p> <p>The passenger journey has been introduced in the research scope to take advantage of the stages where passengers have direct interaction with employees. The defined nine stages of the journey have been applied in the framework for this study to examine the responsibilities performed at these points and required skills and training: Check-in, Baggage Drop, Security control, Passport/Border Control, Boarding, Flight, and Customs control.</p> <p>The study includes a literature review and conducting interviews as the qualitative research method. The interview questions have been developed based on the essential findings extracted from the literature review. In total, 11 semi-structured interviews have been performed with participants selected based on the criteria defining their working experience and management title position (industry professionals, CEOs of companies, consultants, chief instructors, and other). All interviews have been conducted in online format upon receiving the consent.</p> <p>The results have demonstrated that most of the stages of the passenger journey will not significantly be changed in the future. Although digitalization is the most significant trend will increase the number of technologies implemented, which affects the employees. The need to perform manual tasks will be reduced due to the broader digital application, forcing the development of human-focused tasks by modifying employees' skills, responsibilities, requirements, and training.</p> <p>However, the results of this study have proved to be valid and reliable in answering the set objectives and research questions, further potential research proposals were identified.</p>
Keywords Job positions, skills, training, future changes, passenger journey, aviation industry, qualitative research.

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1 Introduction

Aviation plays a significant role in the world's economy, continuously contributing to its growth, with various types of influence: direct, indirect, induced, and stimulating development. (Industry High Level Group (IHLG) 2019, 17-20) Several key indicators are worth noting in this regard. According to ATAG, its economic impact is estimated at \$ 3.5 trillion, 4.1% of the world's gross domestic product (GDP). By providing the fastest and most extensive transportation network, aviation supports the development of global tourism and business. (IATA 2007) The passenger traffic continuously grows. (EASA 2019) In 2019, about 58% of international passengers travelled by air, and the total number of passengers carried by airlines amounted to more than 4.5 billion passengers. (ATAG 2020) In addition, with the rise of the aviation sector, world trade has been greatly facilitated by increased access to international markets and the globalization of manufacturing. (IATA 2007; IHLG 2019) Occupying 1% of all global trade in 2019, the total value of goods shipped by air was equivalent to \$ 6.5 trillion. (ATAG 2020)

All of this and more makes aviation valuable from an economic point of view, not only for companies, organizations, authorities, and other vital stakeholders wishing to contribute to the sector's development but also increases interest from the employment perspective. (IATA 2007; IHLG 2019) In total, in 2019 the aviation industry supports approximately 87.7 million jobs worldwide. This includes several sources of employment. (ATAG 2020) First and foremost, there are jobs provided directly in the sector (11.3 million). People work for airlines, airports, air navigation service providers, etc are a part of that. In addition, around 18.1 million indirect jobs are endorsed by air transport industry suppliers such as fuel suppliers, manufacturers of goods sold in airports, aircraft components suppliers, and others. Besides, direct and indirect employees in the aviation industry have 13.5 million induced jobs globally. Last but not least, part of aviation employment lies within tourism estimated supporting. (ATAG 2020)

Considering all of the above, the aviation industry contains a vast majority of benefits. (IATA 2007; IHLG 2019; ATAG 2020) It aims to maintain a high employment rate by keeping up with various trends such as digitalization. These multiple shifts and changes constantly push aviation into re-evaluating the skills and requirements of employees. Due to this, while current jobs are being modified, new ones are created. (IHLG 2019)

Employment topic is critical and rising within most aviation industry players, therefore, such leading organization as the International Air Transport Association (IATA) views the potential outcomes of the present study as beneficial. Hence, in this thesis, an overview of the current and future jobs in the aviation industry has been examined and summarised in

collaboration with IATA. In addition, the study holds information about job requirements (including skills, background, etc.) and training processes.

1.1 Problem and purpose statement

A well-defined problem statement helps identify the factors related to the study and provides a reason for the research. The statement's goal is to provide clear and precise information on the subject, avoiding using terms and terms that are often inaccurate. It also aims to identify the study's goals and key factors or terms as well as convey the study's importance and justification. (Miles 2019)

The aviation industry is a critical part of the global economy, and its employment topic constantly transforms within the industry. Changes in the aviation industry force to re-struct the business models, in turn, affecting the employees. Various changes might cause some challenges for the stakeholders. For instance, several factors presented on Figure 1 such as modern trends (such as digitalization and others), new training demands, modification of the job positions, shifts in responsibilities and more, could be challenging for players to apply. Lack of awareness about these potential changes can cause a disbalance between the demands and opportunities for employees. Therefore, it is considered essential for stakeholders in the aviation industry to be prepared for the future. By being knowledgeable, they could maintain a high employment rate.

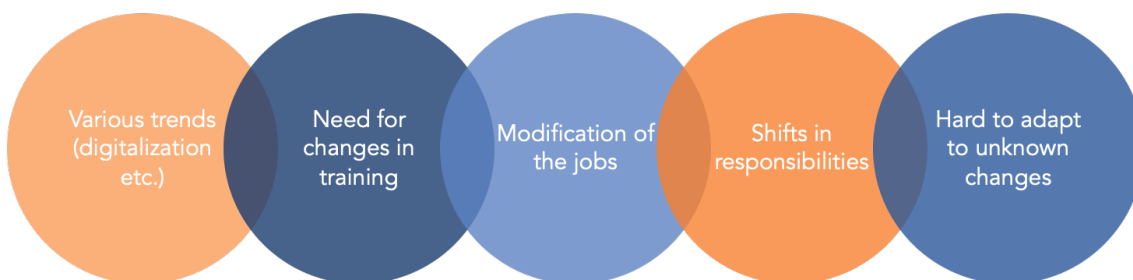


Figure 1. Several defined challenges. (Authors' own figure, 2021)

For the reasons mentioned above, this research aims to provide an in-depth analysis of the aviation industry's current and future employment opportunities. The outcome of the study could potentially help the key aviation stakeholders develop employment opportunities by modifying the job positions, including responsibilities and required skills, as well as updating training materials and processes.

1.2 Objectives

A research objective summarizes the meaning of a particular topic or activity discussed in a study. Objectives define the research. They set the goal, supporting the process by keeping track of and guiding the research. There can be one or more objectives stated for the study. However, the research has to have at least one objective since it cannot be purposeless. (Islam & Samsudin 2020) The ultimate goal is to determine if the expected results will be helpful in finding new knowledge or improving the existing knowledge. For that reason, it is crucial to anticipate and plan accordingly what methodology will be applicable for each research objective. Thereby, the present research pursues the following objectives:

- Examine the current direct jobs in the aviation industry on the scope of passenger journey.
- Investigate drivers of change for the current job positions in the aviation industry.
- Identify main job trends in aviation industry as well skills need in the future.

Setting too many objectives will prevent focusing on the critical questions aimed to be answered with the research. Moreover, doing so will also negatively affect the research results since it might be complicated to respond to all questions. (Khoo 2005) That is why the mentioned above objectives have been narrowed down and, at the same time, developed to support research findings.

1.3 Research questions

Creating a research question is an essential step in any research undertaking. It is recommended first to identify what kind of study is planning to be conducted for research questions. Then it is significant to determine what type of information will be needed to complete the study. (Khoo 2005) For this research three main questions have been set:

RQ1. What jobs are currently existed to support each stage of passenger journey? What are the current job requirements for such positions?

RQ2. How might the current positions change in the future? What could be the main trends behind these changes?

RQ3. What kind of skills and competencies might be needed in the future for the employees working at each stage of the passenger journey?

Questions stated above are developed to support the research objectives and ultimate goal of the study.

1.4 Scope of the topic

The research has been focused on studying the jobs supported directly by the aviation industry across EU. Passenger journey being a valuable concept for understanding passenger flow and related features (Alodhaibi, Burdett & Yarlagadda 2019, 1), has been utilized by this study to demonstrate the critical stages of the journey experienced by the passenger. Considering the vast amount of positions provided by the aviation industry, the investigated jobs have been specified based on the following stages of passenger journey: Check-In, Baggage Drop, Security Check, Passport Control, Boarding, Flight, Border Control, Baggage Claim, and Customs Control.

Hence, this research is targeted to analyse the current job positions and define their potential development and changes at the phases mentioned above. Moreover, it is significant to highlight that the geographical scope of this research has been narrowed to examining the aviation job market and positions in EU. Therefore, all interviews have been conducted with experts from this region having related work experience from the nine related fields.

1.5 Structure of the thesis

The present chapter includes a description of the research structure. Step one in establishing a research problem is defining the study's issue. This step will help the author develop an idea of the project's objective and goals. Defining the problem and formulating the research questions is where every research begins. (Drisko 2005) This study is not an exception. Together with IATA, the topic has been narrowed to examining the current and future situation with job positions in the aviation industry on the scope of the defined passenger journey. Once the subject has been selected and finalized, key research questions have been determined and explained earlier in Chapter 1.3. The scope and goals of the study were carefully considered when designing the research.

After defining the issue, the researchers start working on a research plan that will detail the steps needed to collect and analyse the data. Further studies usually follow this step to develop a comprehensive framework for the analysis. For that reason, a clear and coherent table of contents has been created and followed during the research process. A well-defined framework helps to keep the study on track and the researcher on the right path throughout the research. The framework of the study then started to be followed.

First and foremost, the research carried out an investigation on the literature related to the study's core. Several vital definitions have been selected and explained to strengthen the

knowledge and proficiency of the authors in the research topic. Literature review with critical concepts and terms is covered in Chapter 2. The literature review was done by searching for various sources online. Such literature materials as academic and scientific articles, organizations' reports, and books have been studied to build the theoretical background.

The theoretical framework is followed by establishing and justifying the study's methodology. According to Drisko (2005), a well-designed study method must be identified and implemented to provide a clear and compelling explanation of the findings. The qualitative method has been applied for this study to support the topic. In addition, the qualitative method serves the research questions to gather more insights and opinions about the issue. The research data has been collected by conducting interviews with 11 professionals from the aviation industry.

Moreover, accumulated findings have been processed and analysed according to the selected qualitative method of the research. As a part of the preparation for the interview, the questions have been developed based on the research questions. To ensure the reliability of the interview questions pilot interview has been conducted, allowing to test the questions and differentiate if the outcomes will be per expectations. Furthermore, to support the analysis, all interviews have been recorded. Due to that, confidentiality was also taken into account when assessing the reliability of the study. All recordings and data sharing has been done only upon receiving verbal or written consent from the participants. Besides, as a vital part of the research and academic thesis work, such concepts as reliability and validity have been well studied and implemented. A detailed explanation of the research methodology, including the chosen research methods, interviews, and research process, has been defined in Chapter 3 of the present report.

The data is analysed in Chapter 4 dedicated to the results upon collecting. The analysis of the findings is essential for the research to examine whether the purpose of the study has been accomplished. In addition, to validate the research, it has to be investigated if the research outcomes respond to the questions set from the beginning. That is why the results are analysed and presented in Chapter 4.

In the final chapters, research and the results are discussed and concluded (Chapter 5 and 6, respectively). As recommended by Drisko (2005), the discussion section also covers the limitations of the current research, helping readers consider any cautions applicable to the study.

All the mentioned above essential aspects and parts of the research support the structure serving headings and subheadings. Constructing the study helps to guide readers as well as authors through the report. (Drisko 2005)

2 Literature review

This section contains the theoretical background for the creation of a framework for future research. The information is gathered from authentic academic sources, such as research books, academic articles, thesis works, organisations' reports, and annual reports of the companies. The section includes the definitions of terms and explanations of some statements.

2.1 Customer journey

For the last 30 years, the customer journey has been a part of overall designing the business processes and creating the services provided for the customers called service blueprinting (Shostack 1987; Bitner et al. 2008). Service blueprinting is a tool for the service providers to outline the customer route and the processes which are happening behind the scenes of the service provider. Usually, service blueprint combines all actions of the process related parties (customer, employees and employer) in one visualised model (Stickdorn & Schneider 2011). However, in recent times, the perspective of looking at the customer journey has evolved. Even though the customer journey remains an additional part of the blueprinting (Zomerdijk & Voss 2010), it contemplates mapping the service deliveries and experiences from the customer's point of view (Stickdorn & Schneider 2011). Zomerdijk and Voss highlight that when devising the organizational plans for a customer, touchpoints and journeys depict what actually happens from the customer's point of view (Zomerdijk & Voss 2010).

There is a considerable number of definitions explaining customer journey. For instance, Holmlid and Evenson (2008) compare it with "walking in a customer's shoes." Stickdorn and Schneider (2010), at the same time, call it an "engaging story" of customer's interaction with provided services, or also named as a reoccurred interaction between the customer and the service provider by Meroni and Sangiorgi (2011). Nevertheless, all definitions of the customer journey mentioned above are similar to the one provided by Halvorsrud et al. (2016), which states that "Customer journeys (or alternately, customer journey maps) are visual representations of events or touchpoints depicted chronologically, often accompanied by emotional indicators." The touchpoints are the steps the customer goes through during the experience. Customer journey could be mapped visually by these steps (Azzine Shiratori et al. 2021). The visualisation of the customer journey is called "Customer journey mapping."

2.2 Passenger journey

Passenger journey is the chain of touchpoints the customer goes through while receiving the transportation services (by plane, train boat, etc.). Passenger journey is similar to the customer journey but is developed in the transportation industry, where the customer acts as a passenger. The flow of passengers through an airport terminal is dynamically generated through various processes and stages. Each passenger journey has its flow and needs its infrastructure and services. (Alodhaibi, Burdett & Yarlagadda 2019)

The following job research has been conducted based on the main touchpoints that the passenger faces during the journey. It is worth mentioning that here exists various points of view on the passenger journey in the aviation industry. For the present research two versions of the passenger journey have been investigated and applied as examples. A leading company specializing in air transport communication and information technologies (SITA) and International Air Transport Association (IATA) are the ones who published their versions of the passenger journey in the aviation transportation segment. These two versions have been analysed in this study.

The current chapter offers analysis and comparison of those published versions of the passenger journey. Later they were combined into one journey-flow, used as a framework for researching the jobs at each touchpoint.

SITA's passenger journey

In 2017 the world's leading specialist in air transport communications and information technology SITA had published its interpretation of the passenger journey. The approach includes the customer touchpoints as well as presents some background processes happening after the customer's interaction with the touchpoint. However, the scope of the current project is focused on touchpoints of the journey. Thus, the background services have been excluded from SITA's map.

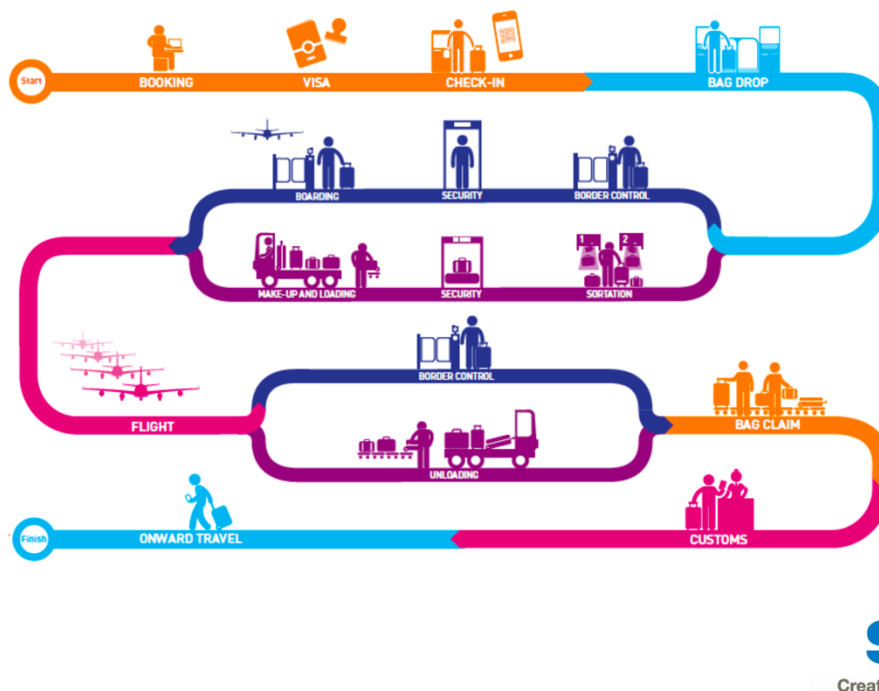


Figure 2. SITA's whole journey approach, SITA. 2017.

The SITA's passenger journey, presented in Figure 2, consists of 11 touchpoints and starts with two preparation steps for the air travel: Booking of the Tickets and Validation of the Visa. Subsequently, the passenger will complete such steps as Check-in and Baggage drop. Then the journey includes going through Border Control and Security Check, later followed by the Boarding. Finally, the Flight is the stage of the passenger journey linking origin and destination airports.

As soon as the traveller arrives at the destination airport, they endure the next touchpoint, Border Control. Lastly, Baggage Claim and Customs are the two final steps of the passenger journey are defined by SITA. After that, the passenger's travel experience is continued.

IATA's passenger journey

Another relevant vision of passenger journey has been developed by International Air Transport Association (IATA). In 2019 IATA, as a part of analysis dedicated to Level of Service (LoS) at airport terminal facilities, has shared the infographic presenting the typical passenger flow through airport stages. The purpose of the study was to reflect on the optimal time and space required at each phase for providing a decent level of service for passengers.

Despite the main focus on the optimal service level, the designed infographic provides a clear vision and information about touchpoints of the passenger journey that the researchers of the present study were looking for. For that reason, IATA's map presented below (Figure 3) has been analysed and considered in the research.

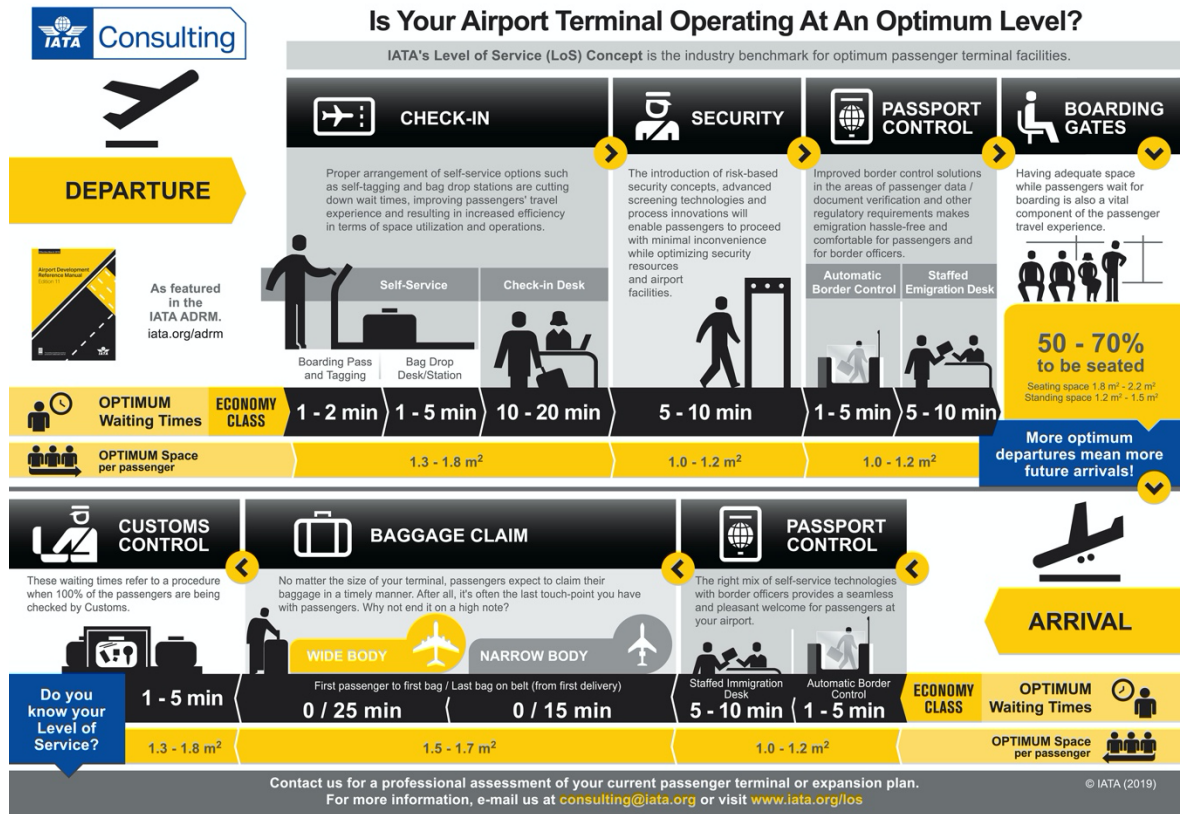


Figure 3. Level of Service Concept, IATA. 2019.

For the purpose of this study such aspects as time spent, and space needed described on the journey designed by IATA have not been considered. The reason behind that is that the current project serves a different objective.

Arrival at departure airport is the starting point of the passenger journey applied in IATA's analysis. The journey contains eight touchpoints. First of all, the passenger goes through a Check-in process that can be done either via self-service or at the check-in desk. Additionally, this step also included Baggage drop-off. The next stage of the journey is the Security Check and Screening, followed by Passport Control afterward. Compare to SITA's approach, IATA define Security as the second stage. According to IATA Passport Control could be completed by Automatic Border Control or Staff Emigration Desk. Finally, the closing step at the departure airport is the Boarding or the waiting for it at the Boarding Gates. The connecting touchpoint between departure and arrival airports is the Flight.

Upon arrival at the destination airport, Passport Control is the stage that passengers will be going through. Similar to the procedure at the departure airport, it could be accomplished using the Automatic Border Control or Staff Emigration Desk. Lastly, as International Air Travel Association asserts, the Baggage Claim is usually the ultimate touchpoint of the passenger journey. However, in some cases depending on the airport and legislation towards the incoming passenger traffic, the final stage of the journey mentioned earlier could also be followed by Customs Control. This is where the passenger journey delineated by IATA's infographic of the air transportation ends.

Both journeys delineated above have some similarities and differences. On one hand, journeys developed by IATA and SITA follow the same main touchpoints starting from Check-in, and Baggage drop-off, followed by Security Check, Passport Control, Boarding at the origin airport, Flight, Passport Control, Baggage Claim, and Customs check at the destination airport. Although, SITA's passenger journey also includes two additional preparational points as Ticket's Booking and Visa Validation. Furthermore, another similarity in both versions lies in the difference in interaction with passengers taken into account in both cases. Still, they are described in more detail in the IATA version.

On the other hand, the critical difference between these two research journeys remains in the purpose that each of them serves. SITA presents the general picture of the passenger journey with its stages. In contrast, IATA concentrates on the time spent and space required at each point to define the optimal level of service.

2.3 Passenger journey in research

As discussed earlier the above-described approaches towards customer journey have some similarities as well as differences. In this section, SITA's and IATA's passenger journeys have been combined into one passenger journey, formulation the further research.

Haster once said that "every good journey requires a map," so this project is no exception. (Haster, 2005 3) Thus, the passenger journey tool has been applied in the present research to indicate the significant phases that passenger goes through, starting at the departure airport and ending at the arrival airport. Based on the analysis and combination of SITA's and IATA's journey versions, the researchers have developed the passenger journey map with critical touchpoints. For better understating and conducting further research, the journey has been visualized and presented in Figure 4 below.

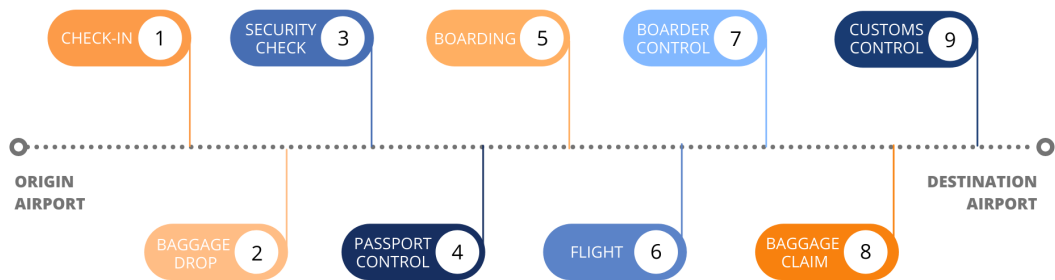


Figure 4. The first step upon arrival at the airport where the passenger starts the journey is Check-In. The Baggage Drop Off stage follows it and might also be combined with the previously mentioned one similar to the way used by IATA (described earlier in Chapter 2.2.2). Baggage Drop Off has been divided and considered an individual part of the journey for the present study. Besides, similar to IATA's design, Security Check is defined as the next step of the passenger journey. The rest of the touchpoints have remained as differentiated on both SITA's and IATA's approaches. To describe more precisely, after a Security Check passenger is expected to go through Passport control (also known as immigration control). After proceeding with this, travellers might have some period where during the basic scenario (excluding emergency, unexpected and other situations), interaction happens mainly with such stakeholders as stores, restaurants/cafes, entertainment places, etc. Later on, before and as a component of the aircraft loading process, passengers endure the Boarding - another stage presented on the journey followed by flight time or, in the present case, just Flight. Upon arrival at the destination airport, the passenger goes through Border Control, Baggage Claim, and Customs Control.

The research has been limited to the stages described in the present chapter. Further analyses and interviews have been narrowed down to the represented phases of the passenger journey.

Check-in and Baggage Drop

The first defined phases of the researched customer journey begin once entering the airport. These stages are called Check-In and Baggage Drop. Check-in is the process of communication between airlines and passengers about the upcoming trip. During the check-in, the passenger can confirm their flight details, register for it by receiving a boarding pass, and select the flight seat, in case it has not been done or allowed by the carrier in advance (University of Minnesota 2021). Nowadays, exist two options for going through this stage. First, it is possible to do the Check-In online, with the help of a computer or laptop, smartphone via the airline's website or mobile applications. Besides, it can be done

on a self-desk or at the airline's counter at the airport (Pekkarinen and Vitikainen 2020) using the specially developed application.

In addition to that, the baggage could be registered online as well as on one of the drop-off points. As defined by Ashford et al. (2013, 171-178), there are four types of drop-off points for the luggage. The first one, off-airport baggage drop, could be done in the city at the airline's office, hotel, or a special place around the city. Secondly, passengers can leave baggage at the point located at the parking area in the airport. The third option, similar to the second one, allows completing the baggage check-in at airport territory by coming there by car. This is called curbside check-in. For these three options passengers is required to present an ID with a confirmation number, destination, flight number, or e-ticket number to the check-in agent to register the luggage. Once dropping off the baggage to the agent passenger is granted the receipt for baggage registration and boarding pass. Last but not least, a traveller has an option to register the luggage at the airport terminal via a self-service kiosk or check-in desk. After completing the registration and baggage dropping stage in either of described above ways, a passenger is admitted proceeding to a security check at the airport. (Ashford et al. 2013, 171-178)

At the check-in counter, the passenger meets the airline-branded personnel. However, it is essential to notice that the employees working at this, and baggage drop stage are not always employed by the airline. These services can be outsourced depending on each country and agreement terms between airlines, airports, and stakeholders. For instance, the airline might often outsource some passenger services at the airport to ground handling operators or other parties. A job position responsible for providing customer service is called "Passenger Service Agent." Passenger Service Agents represent the airline and are competent for the efficiency of the airline and airport by serving its customers on the frontline.

When doing Check-In and Baggage Drop, among their responsibilities there are checking all the travel documents, identity papers, tickets, and conforming to the passenger's baggage. (Türelı et al. 2019,1078-1080). Therefore, there are various requirements for this job position. The most critical ones are collected and presented in Figure 5, designed by Türelı et al. (2019, 1081).

Customer service skills	Reliable	Be calm under pressure
Team work skills	Accurate	Respectful in all situations
Interpersonal skills	Helpful	Cultural awareness
IT (information technology) skills	Kind and courtesy	Work to tight deadlines
Communication skills	Curious	Creative and innovative thinking
Problem solving skills	Flexible	Motivation and enthusiasm

Figure 5. Passenger Service Agent job requirements. Türeli, et al. (2019,1081).

It is expected from Passenger Service Agents to be flexible with their working schedule due to the ongoing flight flow requiring personnel during morning and evening shifts, on holidays, and weekends. Apart from that, the working schedule might be pretty tight as employees need to help solve customer issues by delivering high-quality service. Passenger Service Agents might have a stressful environment that requires them to work under pressure serving passenger demands and obtain strong teamwork skills to solve problems gently (Türeli et al. 2019,1079-1080).

Security Check

As mentioned earlier, the next touchpoint followed by fulfilling Check-in and Baggage drop is the Security Check. The primary responsibility of the stage is to check and ensure the safety and security of all passengers. The airport security measures are the most effective to prevent any unlawful acts in the air (Ashford et al. 2013, 248). On the security check, the passenger goes through the X-Ray scanning of the cabin luggage, metal detector scanning, visual observation, and physical observation, if needed. Nevertheless, some passengers might be advised could go through the secondary screening with additional checks. In this case, such procedures as pat-down and explosive trace detection (ETD) are performed. The security operators could select the passengers for the second check based on their behaviours, clothes pattern, and physical factors (Carr et al. 2020).

Security Check Agent is the job position of the employees working at Security Check. Agents are working in groups of up to five people per checking line. A group includes supervision, screening, and checking operators. Figure 6, developed by Knol et al. (2019), represents the interaction model between security operators and passengers.

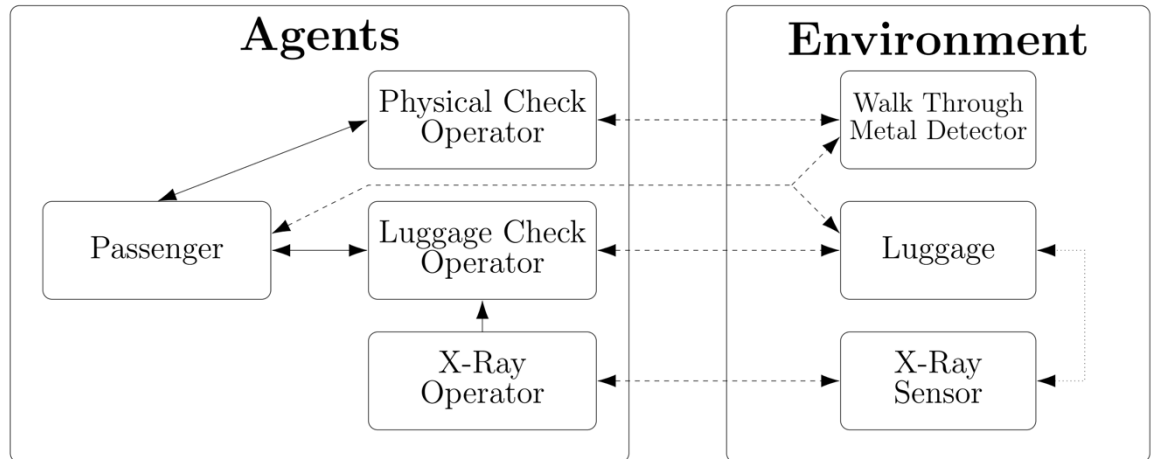


Figure 6. The different types of agents and their interactions in the model. Knol et al., 2019.

All interactions between security agents and passengers mentioned above are done on the Security Check site. The site has a specific layout to provide reliable security measures. Generally, the similar structure of allocation the process at Security Check is applied at most airports in the world. Transportation Security Administration (TSA) from the United States has published the required layout for the security screening checkpoint (SSCP). The format posted by TSA is presented in Figure 7. It is notable that based on the airport size of the airport the required amount of screening lines may vary. For example, as state by Ashford et al. (2013, 251-254) small airport need to have at least one security screening line whereas large airports are required to have at least eight screening lines.

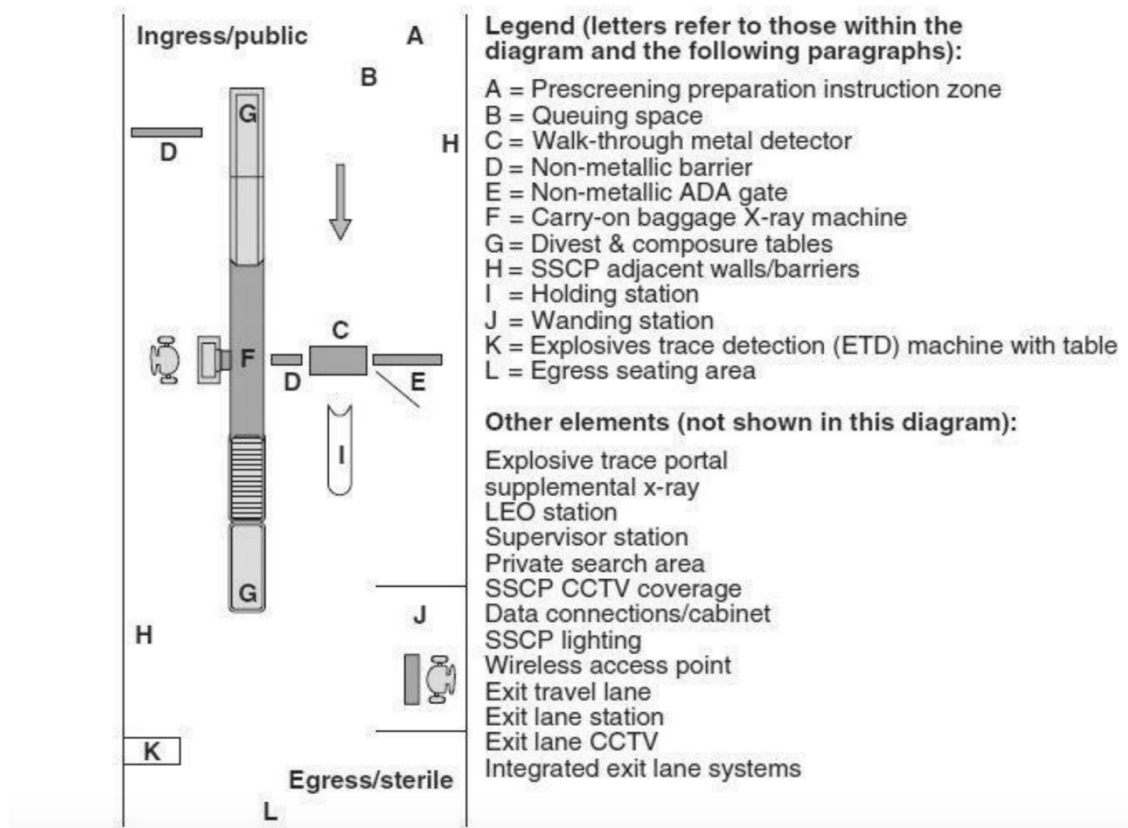


Figure 7. Typical security screening checkpoint (SSCP) layout by TSA.

According to the layout from above, each SSCP includes a lot of equipment needed to conduct security checking services. First of all, there is a walk-through metal detector (WTMD) looking like a door-sized arch. Its purpose is to scan passenger's body for metal material items. If something has been suspected, sensors trigger an alarm at defined these areas, meaning that a more detailed search is needed. In addition to WTMD, each security agent uses a Handheld metal detector (HHMD) or so-called - "wand." It helps agents detect smaller pieces of metal and complete additional checking if needed. Another security check device is an explosive trace detector (ETD) used to detect a slight trace of combustible materials potentially carried by passengers. Furthermore, the x-ray equipment is also placed on the security check site. The carry-on baggage x-ray machine scans an item placed on the belt. This machine could be controlled by an experienced operator and helps to check the inside of carry-on baggage without opening. (Ashford et al. 2013, 251-254)

Security is always a number one priority in the aviation industry. That is why the job requirements for the airport security staff are high. Employees need to have the ability to work independently as well as to deal with problems most effectively and gently. To deliver high-level safety, threat detection skills are trained. Additionally, personnel have to obtain knowledge about how to react appropriately in non-standard behavioural situations. Since various color-coding are used in the detection equipment, it is expected to have a

good vision. For that reason, people not being able to distinguish colours correctly cannot work on a security screening due to the output pictures reflected by an x-ray scanner (Skorupski & Uchroński, 2015). As a part of health requirements, the overall physical condition of the screener is expected to be good, including good hearing and vision, no colour blindness, blood pressure within acceptable limits, and the ability to move and lift items with a weight of up to 30 kilograms (Elias 2009).

Passport / Border Control (Both at the origin and destination Airport)

Passport or boarder control commonly defined as one of the most significant parts of passenger journey. Markus Bindemann (2021) calls this touchpoint a "frontline security task of fundamental importance" that enables to promptly define identity and nationality of passengers departing or arriving by applying principal means. (Bindemann M. 2021, p.1). Border control agencies are responsible for examining the travellers and inspecting of their travel documents. (ICAO 2018, 95) According to the International Civil Aviation Organization travel document means a passport or official identity document that is issued by a State or organization and can be used by legal holder for international travel purposes. (ICAO 2018, 1-5) Identity document is a document that contains needed data for intended usage as an input. (ICAO 2018, 9) All travel documents used for passengers' identification must be machine-readable in accordance with set specifications. (ICAO 2018, 2-3)

The boarder control consists of two major pillars: identification of travellers and risk assessment of traveller. Traveller's identification and authentication of travel documents is carried out by human personnel jointly with technologies. Even though technologies play a central role, employees have a vital role for preventing various forms of organized criminal activity such as terrorism, impeding harm from smuggling, illegal movement across borders, trafficking and other. (ICAO 2018, 95) When conducting the identification and risk assessment two stages of the examination are applied (Figure 8). First and the mandatory one is primary examination where the general assessment is conducted to verify the traveller's identity. The following points are scrutinized:

- the legality and reliability of the presented document, also in relation to its holder
- immigration status
- qualification for departing/entering according to legislation

Some additional questions can be also addressed during the first examination stage. In case of any doubts appeared during the primary examination the traveller can be referred for the secondary examination. Effective secondary examination is a sufficient interview performed in detention rooms following the Standard Operating Procedures (SOPs).


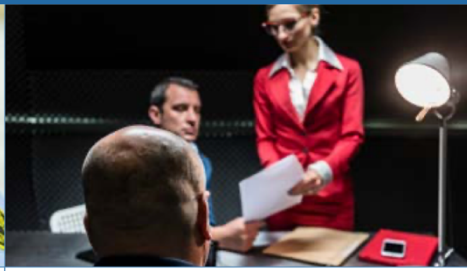
PRIMARY EXAMINATION	SECONDARY EXAMINATION
	
<p>Travellers 99% clearance Automation = simplification of processing</p> <p>Immigration Agency 80% of border control agency personnel work at primary examination The number and share of border agency personnel working at primary examination is decreasing in best practice jurisdictions.</p>	<p>Travellers 1% referral of watchlist matches and targets, PKI, SLTD More targets, more matches, more false positives = Increasingly complex Increasing complexity = Increasing error</p> <p>Immigration Agency 20% of border control agency personnel work at secondary examination The number and share of border agency personnel working at secondary examination is increasing in best practice jurisdictions.</p>

Figure 8. Primary and secondary examination comparison. (ICAO. 2018, p.95)

The above-described processes are performed by border control authorities represented by immigration and border control officers. There are specific entry requirements for border agency personnel. When recruiting the employees for the immigration control, the agencies consider their aptitude and capability. (ICAO 2018, 101) Without a doubt, a general background check including “balanced representation of gender and social backgrounds” might be conducted. (ICAO 2018, 101)

Regarding the educational background, ICAO highlights that candidates need to obtain a solid general education. (ICAO 2018, 101) At the same time United Nations Office on Drugs and Crime, in their "Guide for the development of forensic document examination capacity," assigns controllers to Phase-1 (initial recognition and detection of suspicious documents, which is the responsibility of the immigration and border service) of document verification and determines that special entry requirements towards educational background rely on organization or agency where the employee's area of the document examination duty will be. Without a doubt, it is recommended to take into account prior education and exposure together with educational requirements. However, such learning experiences as immigration service schools, police academies, or other similar technical colleges are preferable in most cases. (United Nations Office on Drugs and Crime 2010, 13) Another essential skill comes with the consideration of the internationality of the job. It is expected from personnel to acquire some knowledge about diverse cultures. Furthermore, it might be eligible to be able to speak foreign languages. (ICAO 2018, 101) According to Frontex (2017), border officers, in addition to the ability to perform tasks and assist people

following the irregular or regular border crossing in the national language, are also required to demonstrate expertise in English. Besides, the English language can be applied in cases of collective operations in cooperation with foreign parties. (Frontex 2017, 48)

For the entry-level in might be required to obtain the basic knowledge of the document verification and inspection methods, although, to perform the tasks properly during the training period, the border control officers should become experts in verifying and inspecting the security features of travel documents. This type of training is expected to be a number one priority. (ICAO 2018, 98) United Nations Office on Drugs and Crime (2010, p. 13) has listed the critical skills for immigration and border control officers on the front line. First and foremost, it is essential to acquire knowledge about shapes, colours, and depth to distinguish them and observe the details. Moreover, border control officers are obliged to be aware of various elements and characteristics of security documents, for instance, standards adopted by ICAO, inks, substrates, assembly, biodata, and production techniques. Indubitably, officers have to be well informed of and prepared for global threats together with relevant intelligence data. Along with proficiency in the diverse types of counterfeit documents and how they may be falsified, border control employees should be experienced in varieties of their ultimate security features (such as optical variable inks, watermarks, etc.). Knowing and being able to discover and recognize the earlier mentioned security features is a necessary skill, which is required from immigration officers. Last but not least, considering the fact, the border control is conducted in collaboration between manual work and automated tools, employees have to be trained accordingly and capable of using the approachable equipment. (Arifin & Nurkumalawati 2020, 343)

Boarding

After performing all the described above stages, Boarding is the final step prior to taking off at the origin airport. Here the behaviour and condition of the passenger are checked before letting them go onboard the aircraft. Boarding services are also conducted by Passenger Service Agents, mentioned earlier at Check-in and Baggage Drop off stages. Employees do the final verification of the identity and tickets, which is crucial to ensure safe Boarding on the plane (Pekkarinen & Vitikainen, 2020).

Considering that the same personnel take care of tasks at the Boarding stage, the requirements for this job position are similar to those for Passenger Service Agents, as explained in the present chapter above.

Flight

Flight is one of the critical parts of the passenger journey where the actual transportation happens between origin and destination airport. The airline operates the flight, which employs the cabin crew members.

The cabin crew is the airline personnel the customer faces during the “Flight” touch-point. The flight attendants are responsible for delivering exceptional passenger service, securing onboard safety, and cabin preparation (Bigelow 2019, 117). Various tasks are performed by employees before, during, and after flight time. That is why, commonly, the duties of cabin crew members can be divided into three categories: pre-, in-, and post-flight tasks. Pre-flight activities include the following:

- Attending the crew meetings and briefings.
- Checking the onboard emergency equipment.
- Monitoring of the boarding and navigating the passengers.
- Assisting the passengers.
- Arming the doors.
- Some paperwork-report activities.

Without a doubt, the critical responsibility of flight attendants is to ensure passenger safety by providing safety instructions and monitoring that flight regulations are followed. In addition, in case of an emergency, the cabin crew needs to help with firefighting, first aid, and conflict serving skills (Rajaveräjä, 2019).

Furthermore, the in-flight duties usually include maintenance of passenger comfort by serving meals and beverages, collecting the waste and trays, bringing blankets or pillows, as well as additional assistance for passengers on request. In addition to that, as Rajaveräjä (2019) describes, they constantly communicate with the flight crew to comprehend the overall status of the flight and support passengers by replying to the questions, helping if needed, and more.

Last but not least, there are post-flight duties the flight attendant is responsible for taking care of door disarming, disembarkation, and checking off the post-flight cabin with further report creation (Rajaveräjä, 2019). Through all steps, the tasks have to be performed not only in a safe manner which is a number one priority but also with respect towards passengers and co-workers.

To be able to fulfil all the required responsibilities, newly selected cabin crew members, without any exceptions, attend very intensive training lasting up to several weeks. As a

part of this training, flight attendants learn about the airline's code of conduct and values pursued, customer service, and how to deliver it accordingly. Considering that safety is everything for the aviation industry, safety training plays a significant part. Such aspects as first aid, firefighting, and aircraft-specific safety instructions are taught and practiced (Lukkarila, 2021). In addition, the training process prepares employees to provide good customer service, react quickly, and solve diverse situations on the board of the aircraft.

Flight attendants are expected to obtain diverse skills, good health conditions, including physical factors. Excellent communication, decision-making, and problem-solving skills are among the required characteristics for cabin crew. In addition, airlines might have tight schedules, and since every minute of the delayed flight costs the airline a considerable amount of money, employees need to be always on time. For that reason, time management skills are essential for the. Besides, such requirements as height and weight of the flight attendant are mostly set within the required limits and may vary from one airline to another.

Moreover, due to the constant travelings and changing time zones, flight attendants have to be prepared for potential causes of the circadian rhythm and "jet lag." In addition to that, constant engine noise and cosmic radiation could result in some health issues in the future. Finally, the change of air humidity and air pressure may cause some health problems related to dry skin and eyes due to low humidity or some dental issues because of air pressure changes (Lukkarila, 2021). Thus, physical health and training are critical for personnel.

Baggage Claim

The primary function of the baggage claim stage is to provide the passenger with dropped-off bags. The arrival processes for bags and passengers could differ from airport to airport. For that, the reclaim hall mostly becomes the buffer space, where the passenger can wait for their baggage or luggage can wait for its owners. According to Ashford et al. (2013, 183,193), there are three scenarios of luggage reclaim at the airport. The first scenario is ideal when passengers come simultaneously with the baggage claim hall. The second one, passengers could come to the hall faster than the bags, then the area will be crowded, and people have to wait for the bags to arrive. Finally, the third scenario happens when the passengers could be late, for example, because of passport control procedures, and the bag will wait for the owners at the hall. However, the third scenario could cause some baggage handling issues due to baggage reclaims belt/conveyor capacity. Typically, they can hold only about 25% of bags from the flight. (Ashford et al. 2013, 183,193).

The baggage claim includes staff for bag processing. Nevertheless, all personnel works "behind the scenes," and passengers do not usually directly interact with any personnel at this stage. All needed information for the successful baggage claim can be found from the airport signs and informational displays around the terminal. However, it becomes an irregular regular passenger journey when something might go wrong, like baggage loss. In this case, the customer addresses the airline's passenger service agents and helps them proceed further with the issue.

Customs Check

After the Baggage Claim, the passengers should go through the last step – Customs Check. Customer inspection applies the concept of two exits – red and green aiming to simplify the passenger flow. The passenger could use the red exit on their wish to declare their goods. On the other side, the passengers use the green exit, where the customs can randomly ask for a check. Moreover, in EU airports, the blue exit could be found. Some EU nationals use the blue exit, having some special customs regulations applied. (Kazda and Caves, 2015) However, the customs check includes a detailed examination on this stage in some countries. That is a time-consuming procedure, which requires additional facilities as well. For example, passengers have to wait for their turn to go through the customs, they need waiting areas, provision, restrooms, others. (Ashford et al., 2013, 223).

In 2013 Pachur and Marinello developed a study related to the work of customs officers, presenting the average statistics profile of the employees working and Customs control stage. For that study, two groups have been defined: a group of experts and a group of novices. As presented on the Figure 9 developed by Pachur and Marinello, both groups showed that the average age of the officers is about 47 years. In addition to that, around 90% of them are men.

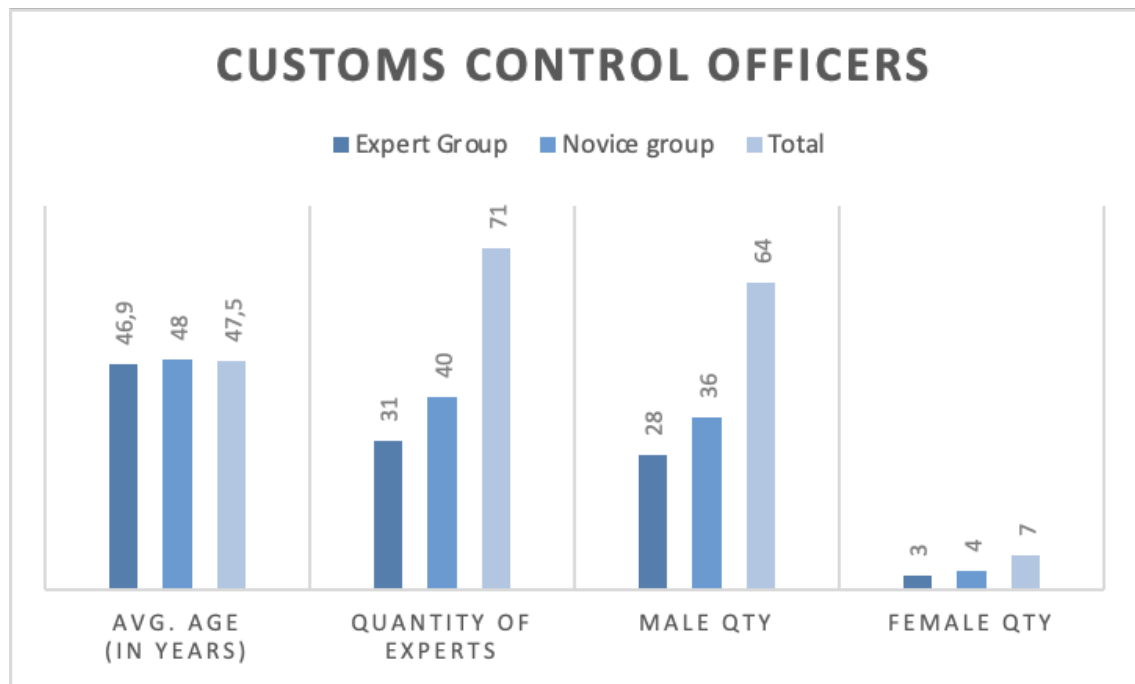


Figure 9. Data about Customs Control Officers from the study of Pachur and Marinello.

The statistics regarding experts' age and quantity on Figure 9 is presented above. The experienced group of people included 31 officers, and they had an average of 15.7 years of experience. Furthermore, both groups' officers had their highest education as "Sekundarschule" (Comparable to the high school) with additional vocational training (Pachur & Marinello, 2013).

2.4 Skills

Since human resources are critical topics of this research work, it is essential to identify several theoretical positions directly related to this topic. In a series of first terms, it is worth explaining the concept of "skills." In his article, Paul Attwell (1990), based on the studied definitions in dictionaries, emphasizes the complexity of this term. The main similarity of these terms is the underlying idea of proficiency and adequacy. Summarizing these definitions, the author defines this as "the ability to do something well." Furthermore, Attwell also notes that the concept of a skill includes "dimension of increasing ability." (Attwell 1990, 432). Elaine Biech, in the book, describes skills as character traits that can be taught. (Biech, 2021) A collective definition of the term, including two previously found interpretations, was given in the book by Roger A. and Vinot D. According to them, skills are "fundamental characteristics of people that lead them to obtain or improve their work based on precise criteria." (Roger A. & Vinot D 2019, 16). The term can be used concerning one individual and as a collective skill towards a group of employees. In addition, it can also be a key or strategic skill and in such a case is relevant to the enterprise. (Retour 2005).

As DeLong and Elbeck stated in their study, two types of skills are essential for employers: soft and hard (also known as noncognitive and cognitive skills). (DeLong & Elbeck 2018, 159). Many authors determine soft skills as behavioural, people, or human expertise and relate them to the category of interpersonal skills. (Weber, Finely, Crawford & Rivera, 2009 354) Rainsbury, Hodges, Burchell & Lay (2002, 9) mention that these skills are concentrated on managing people relationships as well as on individual demeanour. Soft skills apart from the interpersonal group can also be classified as cognitive and social skills. For instance, Dixon, Belnap, Albrecht & Lee (2010, 35) call soft skills "a combination of interpersonal and social skills". Compared to hard and technical skills, soft traits and abilities are less tangible (Fan, Wei & Zhang 2016, 032), also concern attitudes, behaviour, and personality (Moss & Tilly 1996, 253). According to Moss and Tilly, soft skills contain two significant groups, namely first - interaction and second - motivation. Such aptitudes as interaction with co-workers, supervisors, and customers relate to the first cluster. Moreover, interaction also means the following skills: the ability to fit in, amiability, teamwork, as well as "appropriate affect, grooming, and attire". The second and no less important group, motivation, includes commitment, dependability, positive work attitude, enthusiasm, and promptitude to learn. (Moss & Tilly 1996, 256-257)

Hard skills are the opposite of soft skills. These qualities are affiliated with particular technical competencies or solid practical knowledge. (Babić & Slavković 2011, 409) In keeping with Spencer and Spencer (1993) argue that technical expertise and knowledge portray the minimum level required to execute work with basic competencies. Having a cognitive nature, hard skills mainly depend on the intelligence quotient (IQ) of a person (Rainsbury, Hodges, Burchell & Lay 2002, 9), and as Hunt (2007) defines, they are based on "what you know". Furthermore, hard skills can be qualified and measured. (Dixon, Belnap, Albrecht & Lee 2010, 35) Vivid examples of hard skills include operating system skills, operating procedure skills, programming languages, knowledge of foreign languages, networking and communication, and others. (Babić & Slavković 2011, 409; Snyder, Rupp & Thornton, 2006) Besides that, Moss and Tilly (1996, 256-257) include physical strength, mathematical knowledge, as well as writing and reading skills to cognitive skills.

2.5 Competence and competency

Apart from the meaning of skills described earlier, it is beneficial for the present research to also capture such terms as competence. Weinert (1999, 14) establishes competence as intellectual abilities, the so-called general cognitive resources of a person, used to acquire the necessary knowledge, achieve high productivity and solve complex problems with different content. Hager and Gonzi (2002, 1), in turn, also consider the concept of

competence in terms of a person's possession and knowledge of such relevant types, abilities, and skills, such as communication, pattern recognition, problem-solving, analysis, including appropriate attitudes, and more. It is worth noting that in the case where social groups or institutions have or acquire conditions for achieving specific goals of the meeting and developing essential requirements imposed by the external environment, the concept of competence can also be attributed to them as well as to individuals. (Weinert, 1999, p.3) There are many existing opinions and definitions describing competence. However, summarizing most of them, it can be established that in the context of a carefully selected set of practical professional tasks that have an appropriate level of universality, competence is laid down in terms of abilities, skills, knowledge, and attitudes. (Gonczi, Hager, Oliver 1990; Hager 1994; Biggs 1994).

In addition to the "competence," there is also the concept of "competency". Although both terms are applied in corresponding ways, depicting the ability to do something effectively or successfully, competency is defined more on the job's scale as an essential skill to complete the work. At the same time, competence generally means the ability to do something well. (Moghabghab, Tong, Hallaran & Anderson 2018)

It is essential to highlight various opinions and usage of competence and competency. However, for this research, the term competence has been majorly applied.

2.6 Job and training

In order to make all the processes work accordingly, serve the customers and perform the required tasks, the aviation industry recruits employees. According to the Merriam-Webster Dictionary, an employee is a person employed by another person or a company for salary or wages and in a position below the executive level. Activities and tasks executed by employees and workers depend on their work position or also called a job. Based on Tahsildari's and Shahnaei's study (2015, 58), "job" means that an employed individual fills jobs having a labor contract with an employer - a person or organization that supplies a job by paying a salary or wages to more or more humans. (Merriam-Webster Dictionary) Considering the limited number of descriptions of the job, for the present study, two dictionary definitions have been used. First of all, the Merriam-Webster Dictionary interprets a job as a specific role, function, or duty, also as something that has to be done. Cambridge Dictionary provides another reliable definition that states a job is the work or piece of work that a person does to get money.

All jobs and positions existing among different industries are placed on the labour market. The mechanism that compares people willing to work, the so-called the labour supply,

with potential employers - the demand for labour, is the labour market. There are several levels of labour markets: international, national, regional, and local. (Connexions 2017, 2)

Various changes are constantly taking place in the world, which in turn change and develop industries. Aviation is of great importance in the global economy. For example, the Air Transport Action Group (ATAG) estimates for 2016 the total economic impact of the air transport industry to reach \$ 2.7 trillion, accounting for 3.6 percent of the world's gross domestic product (GDP). According to the Industry High Level Group (IHLG), in 2016, 65.5 million jobs in total were supported worldwide by aviation. Taking all of the above into consideration, it is worth noting what is going through and will continue to develop along with the growth of the world economy. Accordingly, future employment will also be subject to modification. Eichhorst argues that the four main factors interacting with each other, such as technology, demographic change, labour market institutions, and globalization, significantly impact the future of employment. The Industry High Level Group predicts that 97.8 million jobs and the US \$ 5.7 trillion of GDP will be created in 2036 by aviation (increase of 110 percent over 2016). (Figure 10)

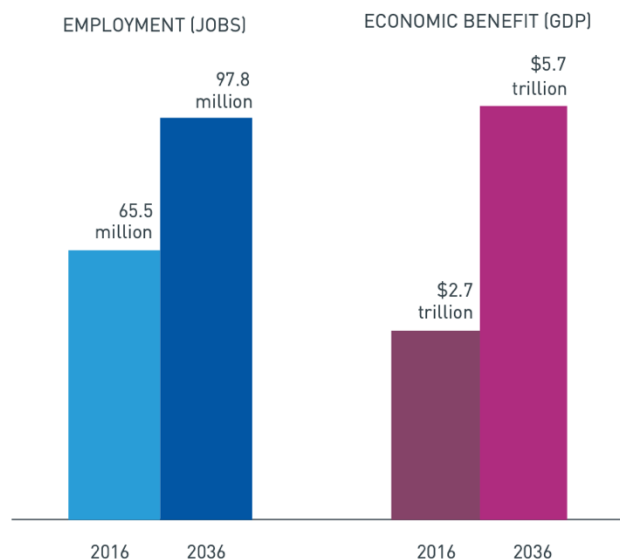


Figure 10. Total aviation global employment and GDP impact: history and forecast. (Source: Industry High Level Group (IHLG). Aviation Benefits Report, 2019)

However, despite progressive global economic integration and technological innovation as universal driving forces, it is important from a global perspective to highlight that there are still apparent occupational, sectoral, and regional differences in employment. In addition to this, Eichhorst points out that specific patterns of diversity in job characteristics, job quality, and employment structure. (Eichhorst 2017, 4-5)

Training

To support the required work performance and invest in the company's constant growth, organizations conduct employee training. There are several reasons behind organizing training at the workplace. First and foremost, training helps employees to learn about the environment and goals pursued by the organization. This training is usually performed for the new employees, which allows them to adapt to the organization and set the right attitudes. (Conti, 2005) Second and the initial idea of the training lies in giving employees who have been already employed an opportunity to gain new skills that can be later beneficially applied at the job. During training, people can learn more about the latest trends and technologies, which can positively affect their performance as they know how to use new methods and tools properly. This can also be supported by Conti's opinion (2005) who states that via learning and changing employees' attitudes make training a leading factor reinforcing the current and future performance at work by escalating the performance ability of employees. Finally, since learning is a never-ending process, according to Shipton, Fay, West, Patterson, and Birdi (2005), training allows improving existing knowledge of the employees, resulting in overall improved productivity of the organization. As Basariya and Sree (2019) claim, training obtains countless benefits for both employees and the company. For instance, it strengthens the loyalty of the employees and increases their morale. Additionally, training maintains the predominance of a skilled workforce, enhancing employee performance and productivity while decreasing the need for supervision and accidents rate.

2.7 Trends in the aviation industry

The trends in the industry are evolving and new trends appear every year. Huge number of changes and circumstances in the world affect the aviation industry. The interests and needs of companies and customers are changing, which is followed by bringing new trends into life.

Digitalisation trends are becoming more and more popular in aviation industry. That trend includes wide number of possible changes. Airports are tracking the passenger flow and adjusting the commercial offers and services based on the people's flow. Moreover, that will help to create the whole passenger journey more seamless. Extra processes would be automated to increase the performance and quality of the provided services and products. For example, the process of check-in, baggage drop, passport control and boarding could be done by using the biometrics on self-kiosks on the particular stage. Employees are getting new technologies to their normal work, which will help them to provide better services. (IATA 2018; Smiths Detection, 2019)

More and more passengers become sensitive about security aspects and trends, especially related to digitalization of the data, also its sharing and storage. All personal data, biometric data, flight information and payment details are stored on the cloud-based services, which are secured by cyber-security departments. The goal of aviation industry is to regulate the storage of that data and provided the best security services. Moreover, the airport security screening is also evolving by bringing computer tomography (CT) screening trends. The CT would make journey of passengers less stressful and more seamless. (IATA 2018; Smiths Detection 2019)

Airports are changing as a concept. The airport ownership is slowly moving from the public to public-private partnership. This trend creates huge opportunities for further investments in that field. Furthermore, the airports are developing into social hubs, where people can do their leisure activities together. (IATA 2018; Smiths Detection 2019)

3 Methodology

The present chapter concentrates on the methodology selected for the research along with the justification of choosing a particular method. Since choosing the method is an essential part of the research that requires considerate reasoning, both qualitative and quantitative methods have been studied and described below. Subsequently, the chapter comprises the description of the data collection process, including the limitations, selection of respondents, data analysis, reliability, and validity of the research.

3.1 Research methods and approach

Woodwell (2014, 3) defines research methodology as to how researchers collect the information to answer research questions. Each research method is used for different purposes during the research. The clear difference between these methods will help researchers select the right one and complete the work in the most efficient way with the desired outcome. In the following chapters, this information will be presented, and all methodology will be described. Choosing the proper research method and following it is significant because that will affect the final result and the quality of data (Walliman 2010, 1). There are qualitative, quantitative, and mixed (both qualitative and quantitative) methodologies most commonly used in academic research. Quantitative research analyses a large amount of incoming data, and the qualitative method includes a small-scaled field of study with descriptive data (Woodwell 2014, 8).

The constructive research is used to determine and solve problems as well as develop and improve the existing system. The constructive research question can be phenomenon-driven or theory-driven, or a combination of both. The combination of theoretical framework and knowledge and practical experience create constructive research. (Oyegoke 2011, 576, 579).

The approach for constructive research could be made in six phases. Phase one is to define the existing problem with the potential to be researched. The second phase is the creation of theoretical framework/background to have a general understanding of the topic. Phase three requires the creation of the new construct, which will show the critical aspects of its usefulness and will be conducted based on the information collected in phase two. The validation process will demonstrate that the suggested solution works in phase four. Phase five will include the description of connections between theory and solution concepts. Finally, the examined scope and future suggestions will be described in the sixth phase. (Oyegoke 2011, 780-788; Pekkarinen & Vitikainen 2020, 63)

Qualitative research method

The first mentions of the qualitative research method originated in American sociology in the 1910-the 1940s. The Chicago School of Sociology students provided in-depth interviews, participant observation, and research of personal documents for their studies in different spheres of social life. Since 1960, a tremendous amount of study works has been devoted to the topic of qualitative researching, various methods, and approaches.

As Taylor, Bogdan & DeVault (2015, 18) describes, qualitative research is used to investigate insights, concepts, and understandings from the collected data, rather than proof, argue, or criticize hypotheses and theories. Qualitative research is performed within the theoretical framework because this research aims to confirm that discovered data apply the theory and not the other way around. Qualitative researchers should look at people holistically. The researched target is not divided into variables and analysed as a whole. It is recommended to have an interview in a conversational approach, starting with regular dialogue. That could help address the questions properly without turning an interview into a question-answer exchange. (Taylor, Bogdan & DeVault 2015, 18-21)

Interviews are used as a method to collect data for action research, case study, and constructive research (Pekkarinen and Vitikainen 2020,63). Walliman (2010, 99) defines three types of interviews: a structured interview that includes the concrete follow-list of questions, where the answers could be in closed format. Unstructured interview – a flexible format interview usually conducted with a question guide to keep the topic. Last but not least, the approach with the accessible format of answers for getting more insights from the interviewee—semi-structured interview. This type of interview includes both structured and unstructured methods mentioned earlier.

Quantitative research method

Compared to the qualitative research, in the quantitative studies data is quantifiable (Queirós, Faria & Almeida 2017, 2). Sukamolson (2007) emphasizes that qualitative research aims to expound a specific phenomenon through gathering numerical data. Thus, quantitative research serves one of three purposes: test the hypothesis, look at cause and effect, as well as make a prediction (Apuke 2017, 3). Quantitative research is not used in this work, but it is still worth mentioning in this chapter to see clear differences and objectives of each research method. The clear differences will help in better understanding of the right method.

Objectivity is the core focus of quantitative research and requires an objective and systematic approach in the data collection process (Queirós, Faria & Almeida 2017, 2). According to Punch (2007, 11-12), for establishing the relationships and examining the significance and strength between the variables, numerical data is generated. He also determines two main strategies for doing it: experimental and non-experimental. Experimental approach studies the effect on other variables, while non-experimental focuses on examining the relationship between natural variation in variables. Apuke claims that such questions as "how, what, who, when where, how much, and how many" are covered in the research. Moreover, when analysing the acquired results, specific statistical procedures are exploited. Usage of various software is commonly used for this purpose.

Current research aims to analyse current and future jobs in the aviation industry with the desired outcome of having descriptive thoughts and opinions gathered from industry professionals. Therefore, the qualitative research method has been considered the most suitable for implementation, serving the goals and desired results of the present research work. Supporting the described in section 3.1.1, the purpose of qualitative research is to "conduct insights, concepts, and understandings from the collected data, rather than to proof, argue or criticize hypotheses and theories" (Taylor, Bogdan & DeVault 2015, 18). Based on that, the qualitative method could support desired outcome and goal of this research work. Moreover, by comparing qualitative and quantitative methods above, the decision to use qualitative research methods for the present study came from their characteristics.

3.2 Research interviews

As mentioned earlier in Chapter 3.1, exists three types of interviews: structured, unstructured, and semi-structured. (Walliman 2010, 99) Based on the description and objectives, the semi-structured interview is the most appropriate for the current research. The purpose of the interviews in this study is to gather information about current and future jobs in the aviation industry. As the aviation industry is broad, the research was narrowed down to investigating the services at each stage of the defined passenger journey. Therefore, the interviews have been conducted with professionals specializing or having experience working with particular steps or steps of the passenger journey. A considerable amount of information and valuable insights have been gathered in the process.

3.2.1 Interview questions

Interview questions have been developed with having the same frame and structure towards all researched stages of the passenger journey. When creating the questions, the following interviews have been considered:

- Having a holistic overview of the job position at the particular stage.
- Answering the research questions, respectively.
- Gathering additional insights about the researched topic.

In total, 16 questions presented in Appendix 3 were developed together with the thesis supervisor and commissioner. To keep the interview flow structured and logical, the questions have been divided into two sections: current situation and future situation. As reflected in Figure 11 below, the first block investigates the current situation with job positions skills, requirements, and training. In contrast, the second block focuses on getting information about potential and forecasting developments of these aspects in the aviation industry.

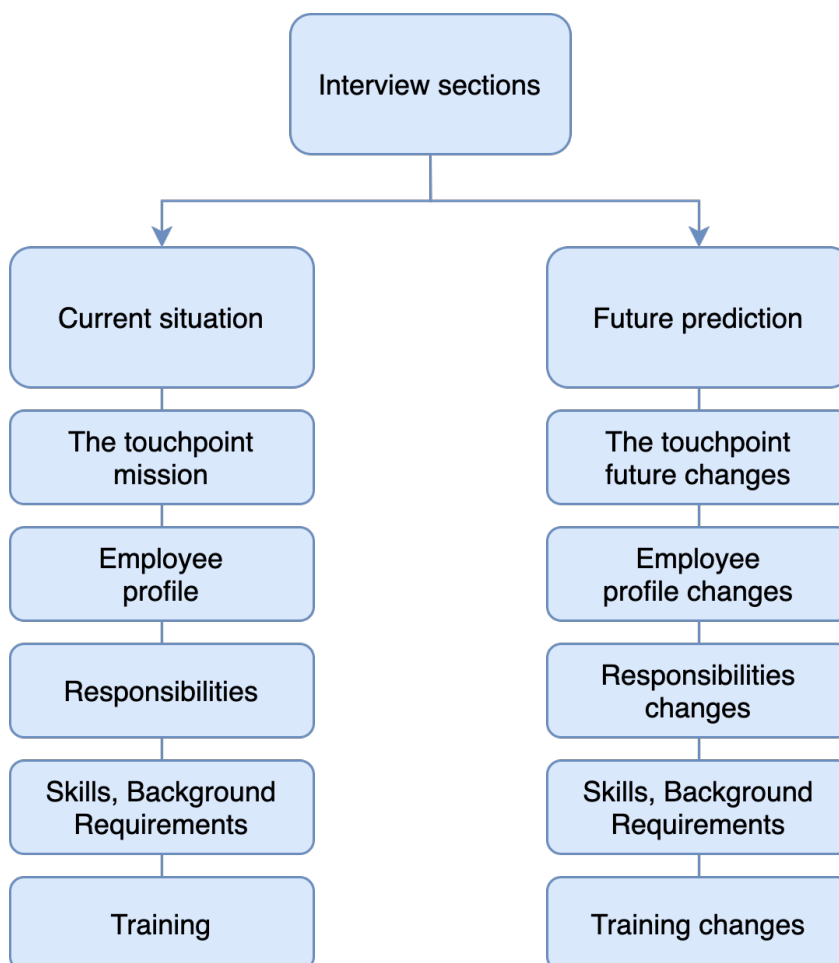


Figure 11. Topic structure during the interview. (Authors' own figure, 2021)

Both blocks of questions cover the same research areas. First of all, the questions collect a general understanding of the processes happening at a particular stage of the passenger journey. After that, the description of the employee profile is followed, beginning with the definition of the job position, then the required responsibilities, skills, and background. Training being a significant part of the employment topic has also been investigated. That is why interviewees were asked to explain training procedures, methods applied, and ways of performing the training (for example, using outsourced services or keeping the training in-house). Finally, having a section studying the current situation with job positions has been included in interview questions on purpose to compare opinions and insights with gathered theoretical data, providing more detailed and reliable results.

The block dedicated to a future situation similar to the first one starts with questions about the future vision of a particular passenger journey's stage. These questions help to define the main trends in the aviation industry. Coming to the employment aspect, further questions explore the impact of the discussed changes on the employees' skills, responsibilities, background, and potential shifts in training processes.

It is essential to mention that most of the questions have been followed by question “why” to gather the reasoning behind the answers provided. This approach helped get as descriptive information and insights from the industry's experts as possible. Furthermore, as mentioned before, the interview method was semi-structured, which means that some of the questions were paraphrased and reorganized during the discussion to support the interview flow. However, none of the questions were excluded from the actual interview process.

3.2.2 Sampling, Inclusion and Exclusion

For this research, the interviewees have been carefully selected. Before the selection process, research questions, objectives, and interview questions have been analyzed. Several essential criteria towards interviewees and their experience (for instance, related working experience of at least three years) have been set to serve them. The defined criteria can be found in Appendix 1. Considering the applied approach for this study using the passenger journey map, interview questions have been formulated based on the related stages: Check-In and Boarding; Baggage drop & claim; Passport / Border control; Security control; Flight (onboard) customer services, Customs control. Since the research aimed to collect a comprehensive picture of the processes in and around the particular stage/touchpoint of the customer journey, the respondents were expected to carry a leadership position. For example, managers, business developers, supervisors, trainers, and others with working backgrounds from the aviation industry with defined journey stages

have been contemplated as potential interviewees. However, regular employees have been excluded due to more limited access to information about all important processes and procedures behind. That is why present research has been centered around managerial personnel.

As Taylor, Bogdan, and DeVault (2015, 60) stated, a researcher observes the field of study with the hope of establishing connections with informants. Thus, two pilot interviews have been conducted before the primary interviews to test the questions and the flow before the actual interviews with aviation professionals. After testing the questions and interview flow, the outcomes have been analysed and proven reliable. Since the test finding was successful, no changes to the interview questions have been applied. Overall, having test interviews was beneficial and supported gathering the potential interviewee contacts.

In the beginning, the contacts for the interview were gathered from personal connections with aviation professionals. After each interview, if possible, the experts were kindly asked to share more potential contacts for the interview. That allowed to arrange interviews with professionals with different industry backgrounds and from various countries around Europe.

3.2.3 Interview details

All interviews have been done voluntarily and only after receiving either verbal or written consent from the interviewee. The suggestions and invitations for the interviews have been sent as a formal email message. The email template example has been placed in Appendix 2 of the current study. For analysis purposes, all interview sessions have been recorded. The recording has been proceeded only upon receiving permission from the interviewee. The recordings have a limited storage time and can be accessed only by the researchers of the present study. Since the participation has been voluntary, not every participant wanted to disclose personal information such as name, job title, company. With respect of these requests' names, and companies have been substituted with terms Professional and Airline/Company without naming anything concrete.

Interviews were scheduled, held, and recorded via the MS Teams platform. The average interview time was between 40-50 minutes long. Interview questions have been shared with participants in advance. Nonetheless, some additional questions apart from the list could be addressed based on the topic and conversation flow during the interview.

3.2.4 Reliability and Validity

In all research, reliability and validity are crucial. However, these aspects are exceptionally vital for qualitative type of work. (Brink 1993, 35). Since the current project applies a qualitative method, reliability, and validity according to Brink (1993), are sensitive issues to be well defined and constantly proven.

To begin with, it is worth getting acquainted with the concepts of reliability and validity. Most authors agree that the reliability of research, in other words, can be called stability. For instance, Nunnally (1978) describes reliability as measurement stability that can be highlighted when obtaining results in different conditions. The stability of the results is also related to the consistency and repeatability of information obtained from sources. (Seltiz, Wrightsman & Cook 1976). Joppe (2000) and Drost (2011) both define reliability as an extent. In 2000, Jopp identified the degree of consistency in timing and accuracy of the population in obtaining results and interest in research. Most notably, if the research results can be successfully repeated using a similar methodology, the research instruments will be considered reliable. (Joppe 2000) As described by Drost (2011), reliability is also referred to as the extent of repeatability of measurements. In this case, this degree is determined by measurements performed by different instruments, by various people, in other conditions. Kubai (2019) also emphasizes the degree of consistency or reliability of a design measure. Thus, repeatable results indicate high stability, which supports that the research is reliable. (Golafshani 2003)

Many qualitative researchers avoid referring to validity and reliability when assessing the merits of their work. Instead, they apply such terms as trustworthiness, confirmability, applicability, credibility, value, consistency, and truth. (Brink, 1993) As Golafshani (2003) states in qualitative research, it is recommended to also look for the trustworthiness of the data to ensure that the results are reliable. According to Guba and Lincoln (1994), there are several ways to evaluate the reliability of a study: transferability, dependability, confirmability, and credibility. When the research goal is to generalize the particular topic, transferability can be used. This concept refers to the ability to apply and collect researched outcomes to people or situations that are different from those studied. Dependability is examined and proved when in various circumstances, the data endures being constant. Considering the fact that the interpretation of the research can be considerably altered in the process, as Copes (2014) claims, it is beneficial to practice it. For that reason, before conducting the interview, several pilot interviews were conducted to test the questions and potential outcome. The interview flow and results during the testing served the goal of the study and have been according to the expectations. Consequently, the methods and instruments applied have been proved as reliable for the present research.

(Khamis Amin, Nørgaard, Cavaco, Witry, Hillman, Cernasev & Desselle 2019; Cope 2014; Guba & Lincoln 1994) Moreover, it is worth mentioning that two persons working on this research increase reliability since the results are always double-checked.

Another measurement for the research's trustworthiness is confirmability. In this case, the research results can not represent the researcher's views but need to indicate that the data have been collected from interviewees. Last but not least, credibility relates to two significant aspects that the researcher is responsible for when conducting qualitative research: the veracity of the gathered data and the opinion of the participants towards it. (Khamis Amin, Nørgaard, Cavaco, Witry, Hillman, Cernasev & Desselle 2019; Cope, 2014; Guba & Lincoln 1994)

The described ways to support reliability are used for this study. First and foremost, critical data for the research have been gathered through interviews. As mentioned earlier, the test interviews have been done to examine the trustworthiness of the questions and expected results. In addition to that, to strengthen the reliability of the research, experts with various backgrounds and knowledge have been interviewed for the same topic or even topics. As for the present study, several stages of the passenger journey have been investigated. Thus, the interview questions have been addressed to various participants resulting in receiving the expected outcomes. It is essential to note as well that the content of the responses may vary between interviewees (considering the experience, knowledge, and expertise of the person). Nevertheless, the results serve the purpose of the study. Therefore, it can be concluded that research and findings are reliable.

Validity is considered an integral part of qualitative research. (Drost 2011) Together with Drost (2011), Kubai (2019) determine the concept of validity as the degree to which particular tools aim to measure what it intended to originally. According to Saunders, Lewis, and Thornhill (2016), validity relates to differentiating if the applied methods are appropriate, analysis of the results, and external validity are correct for the research. In the qualitative study, validity can be described as a construct. (Wainer & Braun 1998) The term construct being the initial notion, hypothesis, question, or concept lies in the core of the research to define what and how to collect the data. Such aspects as knowledge, attitude, skill, or attribute, as stated by Drost (2011), also referred to the construct. The goal of the validity is to assess and demonstrate how accurate and truthful the research results are. The study is considered valid once instruments measure what they are purposed to, and the research findings are validated to be existent and truthful. (Le Comple & Goetz 1982; Joppe, 2000; Zohrabi 2013; Kubai 2019)

This study focuses on research of current and future job positions and skills. For that reason, as explained in Chapter 3.1.3, the qualitative method has been applied. The data gathering process is done by conducting interviews to respond to the research questions (Chapter 1.3). Throughout the planning and development of the research and interviews, there has been a constant return to the original questions of the study. Therefore, interview outcomes and research findings respond to the implemented measures by serving the purpose of the present study. To sum up, the validity of the present study can be finalized by taking that into account the mentioned earlier factors.

4 Results

This chapter includes the review and analysis of the results collected from the interviews with professionals from the aviation industry. The chapter is divided into sections based on the stages of the passenger journey explained earlier in this study. Since several experts from the same field have been interviewed during the research, different perspectives and opinions on the topics have been compared.

In total, 11 professionals were interviewed for this research. The list of the participant is presented in Table 1 below. All interviews were done during November and December 2021. Not every interviewee granted their consent for disclosing their name or/and company. Nevertheless, all participants shared their titles, responsibilities, and work experience.

Table 1. List of interviewed experts. (Authors' own table, 2021)

Name of the interviewee	Position / Title	Researched touch-point
Klaus Knöpfle	Founder of an aviation consulting company, and a general manager at the association of service providers at the German airports.	Security Control, Passport/Border Control, Customs Control
Professional M	The CEO and a chairman of consulting companies in the aviation and tourism industries	Passport/Border Control, Customs Control
Nick Rhodes	Head of Operations in Safety & Infrastructure at European Regions Airline Association (ERA)	Security Control, Passport/Border Control, Customs Control
Professional A	Chief instructor of cabin crew, and cabin safety officer in past.	Flight
Professional S	Member of inflight service delivery and development team.	Flight
Professional J	Regional manager with previous experience at cabin crew processes.	Flight
Professional P	CEO of private company specialised in training services for airport ground handling service agents, logistic companies and airlines.	Check-in, Baggage Drop, Boarding

Professional K	CEO and co-founder of company providing eLearning services, and COO of private company specialised in training services for airport ground handling service agents, logistic companies and airlines.	Check-in, Baggage Drop, Boarding
Taivo Linnamägi	Director of aviation department at Ministry of Economic Affairs and Communications (Transport ministry) for Estonia.	Check-in, Baggage Drop, Boarding. Partially covered, Border control
Professional F	General director at association of airline and airport service providers	Check-in, Baggage Drop, Boarding
Professional H	Vice president at a national airport operator company.	Check-in, Baggage Drop, Boarding

Considering the convenient implementation of MS Teams as the tool for interviewing, broad geographical and content scope has been collected. As described earlier, the interviews were semi-structured following the prepared list of questions, however, at the same time giving space to paraphrase them or include additional requests to collect as much information as possible.

4.1 Check-in, Baggage Drop and Boarding

The contact points for check-in, baggage drop-off, and boarding are combined into one section, as all interviewees have stated that these are operated by one job position, the PSA (Passenger Service Agent).

As the present chapter contains several stages of the passenger journey, it was decided to interview several experts from different backgrounds in this field. Some experts are more familiar with the training component of employees and experts who are well acquainted with the legislation and regulatory areas. The complete list of the interviewed experts regarding this touchpoint is shown in Table 1.

The main tasks of the airport check-in and baggage drop-off points are to confirm passenger's documents, reserve a seat (if possible), report flight details and receive their baggage. There are three options for proceeding with check-in and baggage drops. The first is the traditional way where an airline representative makes all the document confirmations and claims luggage's at the check-in counter. The traditional way includes higher se-

curity features, as at this point, the airport staff can detect possible unusual passenger behaviour. Secondly, there is a semi-automatic way where passengers can check-in either at kiosks or online. This is partly self-service, as customers can print their luggage labels independently but drop their luggage with staff help. The last option is an automatic type that consists of self-service at all stages, including the baggage drop-off.

The boarding phase is performed to confirm the passenger's documents and boarding further. In addition, it is an integral part of organizing safe boarding and passenger flow.

Current situation

People working at the stages mentioned above are called Passenger Service Agents (PSA). These people could be employed directly by the airline, or the airline could make an agreement with a ground handling company, to outsource passenger services but still perform on behalf of the carrier.

Passenger Service Agents have to provide good customer service to understand security and safety responsibilities. The job requires solving different unusual cases with travel documents, being attentive, and having problem-solving skills. The level of perceived customer service is dictated by the airline. However, all PSAs generally need to be service-oriented and make the passenger journey as smooth as possible. In addition to that, services are expected to be delivered in a friendly manner and support the passengers if any problems occur. When irregular situations might happen (like flight cancellations or significant delays, or others), PSA is responsible for informing and explaining the case has to provide passengers with alternative solutions and needed help. Apart from customer service characteristics, basic IT skills and understanding of digital systems are significant for employees to offer services, guide customers and deal with possible issues. The Passenger Service Agent should be adaptive to versatile schedules and changing working shifts. Every interviewed professional has mentioned that this role requires good language skills, specifically a proficient English and local language level.

In addition to the skills mentioned above, obtaining a previous experience in customer services would be a benefit for the PSA. Aviation is a highly regulated industry, takes safety and security very carefully. Consequently, no criminal records or questioning background experiences can be obtained by applying or working at Check-in, Baggage Drop-off/Claim, and Boarding.

As Taivo Linnamägi described, the background check of the potential employee is completed by the authorities to prevent possible criminal activities from the employee's side.

A high school diploma is a minimum requirement for the PSA's background experience. Other related education could be considered beneficial for the employee, but no specific education is needed since all necessary training will be provided later by the company's side.

Training for this task is mandatory and completed by the company. Some companies out-source the learning process to other organizations, and some complete the training on their own premises. The decision on the location of the training is based on the size and capabilities of the operating company. Usually, the training is done in two parts. The first part begins after recruitment with theory and self-study online. Once most of the theory has been covered, there will be classes held in training facilities in order to support online self-study with practical knowledge.

According to our interviewee Professional P, the training could be divided into three parts:

- mandatory training for international authorities
- training for the country and local facilities
- training for airline operating instructions

During the training, future PSA will address, among other things, customer experience, passenger requirements, documentation requirements, safety aspects and training, familiarization with tools, and airline code and service level. The main training before starting the actual job lasts about 2-3 weeks, of which about 75% is an online learning and 25% offline in the training facilities. However, after the first training, the PSA cannot start working independently if they have no previous experience in the field. Therefore, a tutor or supervisor supervises all the first working processes. Generally, PSA training is continuous, as a person increases the scale of their opportunities by learning about new stages of customer travel and passenger services. Moreover, some training should be repeated once every 1 or 2 years.

In the passenger services sector of the aviation industry, there is currently a shortage of qualified workers. Some experts correlate this with the rapidly changing pace of work and the emergence of the latest trends in the labour market. The rapid turnover of staff leads to high training costs, and the main goal in this field is quality, not quantity.

Future

Experts conclude that check-in, drop-off, and boarding stages remain comparable as they are now. However, more automation is going to be implemented, and in most cases, more people are coming to use self-service. The predicted increase in self-service is shown in Figure 12. It is essential to mention that automation does not completely change people

but may reduce the number of staff requirements. As stated by Professional H, PSA supports automated functions and helps passengers with questions and problems. In addition, the PSA may not have a continuous counter, as the main equipment for problem-solving could be with the PSA in the check-in area. For example, a tablet, smartphone, or a compact printer could create a mobile passenger service agent that supports passengers on their journey anywhere at the airport.

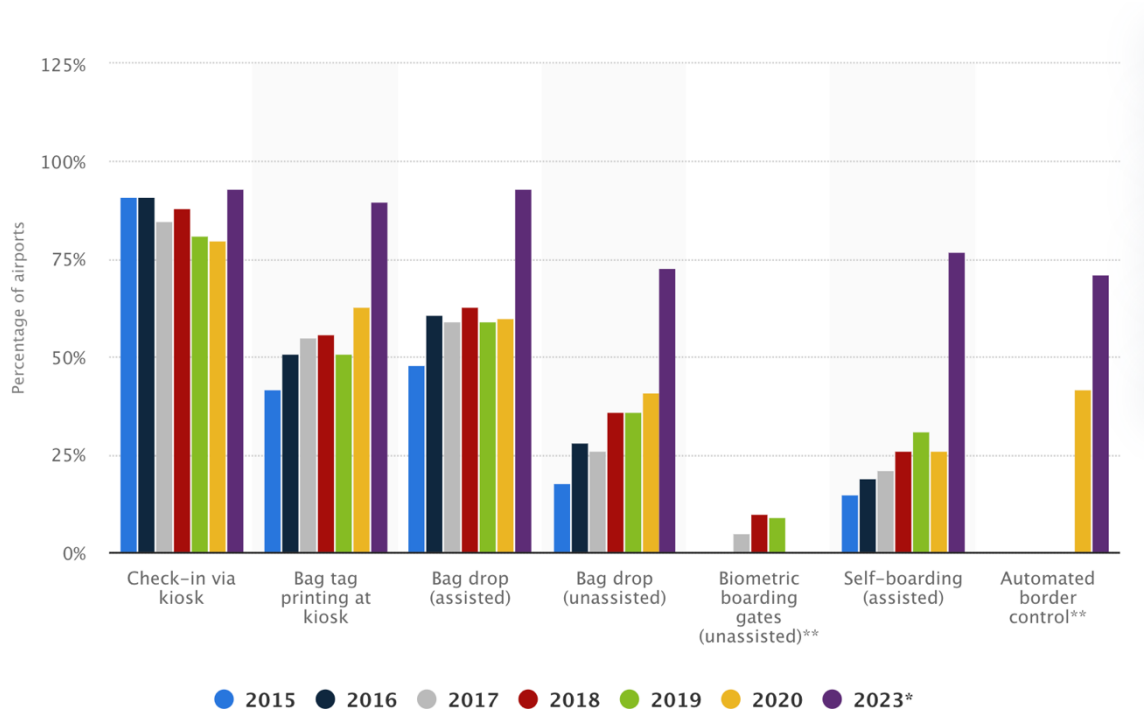


Figure 12. The percentage of airports that implemented passenger self-services and development forecast for 2023. (Mazareanu, 2021)

Professional K mentioned a particularly important trend regarding the future of passenger transport: simple cases, which make the journey exceptionally smooth, will be automated. However, there will still be some difficult and unusual cases that need human assistance. This means that PSA has to deal with more problematic or unique cases instead of having day-to-day situations.

According to professionals, the main responsibility of the Passenger Service Agents will shift to supporting and maintaining the services provided by the maintenance staff. As mentioned earlier, most passengers will be using self-services, and incidental cases will remain to the airport staff. Tasks such as passenger guidance, document review, and investigation, Q&A's will remain unchanged. In addition, most skills will remain similar. However, the knowledge and familiarity of various digital systems and devices could be incorporated into the skills required for the PSA task.

Most training courses remain the same but are adapted to the industry's latest trends. For example, PSA's core training could include a course related to various digital systems and equipment. This would increase the quality of services and solve future passenger problems. Professional K mentioned that VR and AR training would be used more frequently as it becomes cheaper and effective year after year. In addition, professionals K and P said that VR and AR could be used for demonstrating and visualizing certain cases. However, VR techniques cannot train PSA for activities that require physical strength, such as lifting objects. Overall, the training for Passenger Service Agents can be adapted to the latest industry and service trends.

4.2 Security Check

The security check touchpoint was researched by interviewing the experts in the airport industry – Klaus Knöpfle and Nick Rhodes. Mr. Knöpfle is the founder of an aviation consulting company and a general manager at the association of service providers at the German airports with huge working experience with airport operations. Mr. Rhodes is Head of Operations in Safety & Infrastructure at European Regions Airline Association (ERA), with 20+ years of working experience in the aviation industry.

Rhodes and Knöpfle describe security screening as a point of contact for a passenger's journey as a means of ensuring security at the aircraft and the airport. Safety requirements and processes are set and regulated by the authorities. In addition, technical equipment and workflow are under control. Security controls could be carried out by local authorities or outsourced to private companies with certificates and licenses in this area. This stage aims at detecting potential hazards in the goods being carried or in the passenger's behavior. By screening each passenger (including the staff), it creates a security zone at the airport.

As online check-in usability has risen, security screening responsibilities have become more critical. Security staff has to be highly attentive to passengers, as there is less time to detect anomalous behavior than through the traditional check-in method, where the customer service representative could detect unnatural attitudes. However, security checks are carried out not only in the passenger area but also in cargo handling through security checks on luggage and security checks on the airport entrance.

Current situation

Currently, security inspectors work alternately between baggage security screening and passenger security screening. The primary responsibilities of security agents are improving passenger safety and preventing potential incidents.

The main requirements for current employees in airport security are their skills and background. The main abilities should be paying attention to details and following the constant flow of information. A customer service background can be advantageous since the work requires close interaction with passengers. Specific educational background is not required, but work experience is considered. In addition, they should hold a clear criminal background.

Security agent training is mandatory and can be completed by different organizations. Private security companies can have their own training facilities or could outsource the training to other specialized companies. If the authorities carry out security controls, training could be provided at a local training centre or outsourced to private companies. It is important to note that all training centres must have valid regulatory approvals and certifications for training services (for example, from the European Union Aviation Safety Agency (EASA) and/or the European Union). The training for security agents should be re-executed in 1 or 2 years by adjusting to current trends and skills and knowledge.

There are mainly two parts to be learned in the training - security screening of passengers and baggage. The training of passenger screening includes information on dealing with different-minded people, conflict prevention and resolution, and lastly, scanning passengers with various equipment. On the other hand, the baggage screening training consists of a variety of security screening guides and legislative courses that describe the nuances of the goods carried by different passengers.

Linnamägi's words about staff shortages and rapid staff turnover are also supported by Rhodes. Both experts mentioned that training airport staff is becoming costly for operating companies as people leave their jobs. However, Nick Rhodes does not correlate this with employee wages but mostly with labour market trends.

Future

Based on the results, experts do not see any massive changes in security control processes as a touchpoint on the passenger journey. Regardless, some changes related to

personnel and technologies may happen. There is a movement towards enhanced technologies used for security control. The price of these technologies right now is remarkably high and could be accessible only for big international airport hubs. However, professionals from the industry believe that such technologies as Computer Tomography (CT) will decrease costs, allowing more airports to upgrade different technologies. Huge international airports have already started to slowly enhance security control with new CT scanners mentioned in Figure 13.



Figure 13. Computer tomography baggage screener implemented in United States by Transportation Security Administration (TSA). (TSA, 2020)

The use of innovative technologies can reduce the number of security agents working at a security checkpoint. Nick Rhodes mentioned the possibility of reducing staff by about 30%. The technology achieves a higher level of safety by reducing the manual work of employees. New automation systems could speed up the entire security screening process due to optimized processes. Except for the growing need to improve IT skills, the skills required for the job will not change dramatically. Rhodes has identified three critical competencies required from a security oversight operator:

- the competencies required to perform the job
- the technical competencies
- human-related skills such as communication and interaction competencies

According to experts, all additional knowledge and skills needed to carry out security surveillance in the near future will be done through training. The training would not change

much. It will be similar to the current internal training. Moreover, due to some technical aspects, the training time could be shortened, as the technologies may solve the tasks of some security control agents.

As Klaus Knöpfle mentioned, new technologies will increase the level of service and make traveling smoother but achieving 100% safety is not possible. There will always be a chance of making a mistake.

4.3 Passport/Border Control

Considering that Passport/Border control is a highly regulated stage by authorities and states, certain limitations for accessing the information. Nevertheless, three valuable experts working closely with this field have been successfully interviewed. Nick Rhodes, Taivo Linnamägi, and Professional M have contributed to the present study by sharing some insights and ideas regarding employment topics in Border control.

unwanted

According to the gathered data, the primary purpose of passport control, also called border control, is to maintain the immigration flow, preventing objectionable individuals from moving from one country to another. Certain people's profiles might be considered causing potential danger or threat. Border control is conducted at arrival and destination airports to monitor the migration entering and exiting the country, especially on an international scale. However, passport control might not be performed when traveling is within one country or union, for example, around the European Union. For the present study, this stage has been defined as a vital stage of the passenger journey. That is why it is included in the analysis.

Arriving passengers may have some political, legal, or economic restrictions with the destination country. Likewise, departing passengers might obtain economic or legal limitations at the origin country due to having, for example, a debt, expensive unpaid fine, or ongoing criminal records. These and other aspects might restrain people from traveling. That is why border supports control of their movement.

Current situation

Employee position working at this stage called border control agent. Agent's core responsibilities consist of validating travel documents, checking the passengers' background, and their ability to leave/enter the country. Besides, the people migration has to be tracked

and reported. Moreover, in case of noticing anything suspicious and potentially dangerous, the passport control agent informs and proceeds with supplemental checking processes. All of the duties mentioned here aim to ensure the safety level in the aviation industry.

Border control agents being public servants, are required to obtain educational qualifications besides a high school diploma to work. Considering the job specifications, employees need to have specific characteristics such as attentiveness to details, analytical skills, a general understanding of certain laws, and more. Additionally, it is beneficial to be people-oriented, having good customer and communication skills. However, most of the qualities and knowledge required for a passport control position will be gathered during the mandatory special job training. Training might also include special narrowed modules and topics depending on the responsibility area.

Future

To begin with, interviewed experts generally do not see significant changes in border control. According to Nick Rhodes, the next stage of border control's evolution can be reached only to a certain extent. Since most of the processes are already organized quite smoothly, the critical limitation of the development concerns data sharing and lack of standardization between countries. Unless parties are open to cooperation and approaching the innovations together, further developments cannot be continued. The cooperative approach taken by countries in the European Union can be a prime example. One way to speed up the border control process is to improve data transfer.

As Mr. Linnamägi has mentioned, automation is a crucial direction of future aviation development. For that reason, there is a growing tendency among various legal entities and countries to adjust laws and regulations supporting the potential implementation of technologies. Data security is the critical aspect here. That is why responsible technologies, and their providers should demonstrate trustworthiness complied with security and efficiency standards set by authorities. In case of successful testing and checking, verified technologies can be concluded as reliable, ensuring the potential implementation in practice. Recent and currently the most promising biometrical innovations have been taken by several interviewees as an example. The biometrics technologies receive the necessary data through data transfer, thus, require access to personal data. The passenger can be verified using an identification system based on a biometric input.

Despite the potentially broad application of automation, it is crucial to highlight that the traditional border control performed by employees will be kept as well. Since some people

might have challenges approaching technologies, human interaction can support and assist them accordingly. However, the number of traditional control desks is foreseen to be significantly reduced due to the increasing usage of automated processes.

4.4 Flight

For the Flight touchpoint, three people were interviewed:

- Professional A is the airline S's chief instructor.
- Professional S is a member of Airline S's air services delivery and development team.
- Professional J is a regional manager with previous experience in cabin crew processes at Airline A.

All interviewees described the Flight as a touchpoint where the first task is passenger safety, and the second is in-flight service of passengers. The primary responsibility of cabin crew members is to ensure that all passengers are safe and comfortable. During special incidents, the flight attendant must resolve the incident. In-flight service is also vital for the customer experience and the airline's image. However, as Professional J mentioned, in-flight services are still less important than flight safety.

Current situation

Every interviewed person described the current employees and their profiles on the flight stage. The number of staff will differentiate based on the flight length and aircraft size. However, there always will be the following personnel. As Professional J described, behind the wheel there will be at least aircraft captain and pilot. The captain is responsible for the whole flight, and the pilot is assisting the captain during the flight. In the cabin, there are Cabin Crew Members (CCM) or Flight attendants. Interviewees categorised all cabin crew members in different sections based on their knowledge and responsibilities. As Professionals A and S mention, there is at least one Senior Cabin Crew member on the flight, who is the team leader for the whole cabin team. Professional A divided cabin crew members into two types: regular flight attendants and flight attendants additionally trained for business class service. Professional J explained more detailed actions the CCM have to do to maintain the safety and security onboard. These actions are the pre-flight checking of all necessary equipment, workability and condition of the cabin equipment, control and allocation of the passenger's carry-on baggage, and overall preparation for the flight, such as the door arming. For regular people that seems that CCM is devot-

ing 75% of the time for the customer services and 25% for the security, however, as Person S indicate, from the airline process management point of view this number is opposite: onboard staff is working more on safety and security related issues, than on the services.

Not everyone can become a Cabin Crew member since it requires specific skills and conditions. Professional S mentions that the first requirements for the CCM employee are starting from the law and regulations, such as required health and physical conditions. Flight attendants should do some of the mandatory health check-ups every 5 years to make sure that the health and physical conditions are matching the national and international job requirements. As it was mentioned by every expert, the person has to be service-oriented and service-motivated because it will help staff to provide better services and create an atmosphere during the flight. Professionals A and J note that a background in hospitality or restaurant businesses could be a huge benefit for the flight attendant or potential candidate for that position. However, the experience in these fields does not mean that it is a suitable candidate for the CCM position. All professionals have mentioned that language skills are also needed, but the selection the languages is based on the airline and destinations.

Every potential CCM has to complete mandatory training about safety, security, and customer service. Professional A catch, in the European Union, training regarding safety and security are regulated by European Union Aviation Safety Agency (EASA). All training done by airlines for cabin crew members should meet the requirements and licenses of EASA everyone mentioned, there should be done safety, firefighting, first-aid, security, and emergency situation training for every single CCM. In addition to that, airlines are providing Service training and Crew Resource Management (CRM) training for their employees. The service training includes all knowledge about providing customer service and communication with passengers, as well as it includes manuals about different tools are used onboard (Professional A and Professional J). Customer service training could be different from airline to airline and from class to class. For example, economy class is basic training, business class training includes additional knowledge about customer service, and first-class is the highest level of passenger services onboard (Professional A). CRM training is also important for each CCM because it will help to learn more about yourself, decision-making, and how to act in different situations. Some trainings have to be passed again after some time (usually once a year) to maintain the flight attendant license valid.

All training has similar outcomes, but the ways training is performed could be vastly different. For example, the training could be outsourced to education centres or could be done by airline's education services. Airlines the interviewees are working for, run their own

training centres. However, airline S (Professional A and S) is using an additional external trainings and professionals to conduct extra educational processes from the employees. According to Professional S, about 90% of cabin crew trainings are done internally, and about 10% of them are performed by external organisations and guest speakers. The Airline A (Professional J) is providing all trainings only within their training centre without any external support. It is important for each airline to schedule the studies of CCM in advance because any extra time, when person is on the ground, not on the flight, is huge losses for the company.

Ways the training could be provided differ from airline to airline, but based on the experience of the interviewees, there is some part of the course, which could be done online, however, most part of the training should be done within the education centre. Training that requires physical presence, such as first-aid, firefighting, or equipment instructions, have to be done physically in the training facilities by the law and regulations. Moreover, in airline S cabin crew members are provided with additional education courses with a wide selection of topics. As Professional S says, some employees may ask to add a specific course to the library of the available ones, or it could be done as well from the management side, if they decided that some trainings are relevant at the specific time. Some of the trainings in airline S are enhanced by Virtual Reality (VR) or Augmented Reality (AR), which helps education centres to provide more interactive training with a higher quality outcome.

Future

All interviewed experts forecast changes in in-flight services in the near future. However, all of them are in line with the fact that the number of flight attendants would not decrease. First, it is regulated by law, and experts do not see the law changing anytime soon. Second, with a smaller number of CCMs, it's harder to manage everything smoothly. Every expert mentioned various possible changes but mainly related to the digitalization trend. For example, Professional J suggests that the aircraft's cabin will be enhanced with multiple digitization features, such as a display that shows flight attendants who have not fastened their seat belts.

Professional A believes that holograms for cabin crew could be added to the cabin for additional information. While the holograms inform customers, cabin crew members can dedicate their time to other tasks. It is important to note that any innovative technologies added to the board will help flight attendants improve safety and quality of services. However, this will not eliminate or reduce cabin crew. According to Professional S, all implemented digital services must have a self-evident version that works properly because

sometimes innovative technologies are introduced because of a trend. Moreover, not all digital tools work correctly. The current trend in customer experience is simplicity. A poorly functioning digital system can destroy the simplicity and seamless impression of traveling.

Professional S mentioned that the cabin crew could begin product marketing or become an airline brand ambassador. For example, flight attendants could inform passengers about airline activities, such as recycling, zero emissions, etc. In addition, product marketing could be part of CCM's responsibilities. These changes will help airlines increase brand awareness and revenue. However, all of the above changes will be followed by adjustments to some of the skills and background requirements. Each interviewee stated that future CCMs should be familiar with the basic use of digital tools and gadgets. This is not a significant change since digitalization is part of our everyday lives. In marketing and ambassador responsibilities, flight attendants may require experience in marketing or product promotion.

Some of the new skills are advantageous but not a strict requirement, as knowledge is gathered through training that is adapted to the evolving demand. According to Professional S, based on surveys of the airline's internal staff, the management and training department can implement or tailor the training to the needs of the cabin crew. For example, it could be additional material to existing versions of the training. Completely new courses could also be organized and implemented.

In the future, training in augmented reality (AR) and virtual reality (VR) will be implemented in the training of CCMs. Professional A mentions that the use of VR and AR has begun in some companies, but it is not as common around the world. AR and VR cannot fully exchange traditional ways of learning and practice because the legislation regulates it. However, it can reduce the cost of training and improve quality. For example, after mandatory physical training in the cabin of an aircraft, trainees may perform an additional session using VR glasses, as shown in Figure 14. Rather than arranging 1-2 additional visits to the training cabin, the option of using VR or AR is a more cost- and time-efficient solution.



Figure 14. Cabin crew VR training example from training company AVIETRA. (AVIETRA, 2021)

Lastly, all professionals mentioned that current jobs would remain the same without new positions emerging to this segment of passenger services. By adjusting the training of the Cabin Crew Members, any changes in this field can be handled.

4.5 Customs Check

Airport customs control is regulated by authorities and contains very strict provisions on disclosing confidential information. As a result, most interviewees were unable to share information about customs control. Even the interviewed experts have limited access to the customs information.

While interviewing Klaus Knöpfl and Nick Rhodes, they were able to share some details of the workflow and aspects of customs control. The main task of customs control is to prevent the import or export of prohibited goods to/from the passenger's country of visit. At some point, customs control may be similar to security control, but customs are responsible for controlling the movement of unwanted goods across national borders.

Current situation

Customs control is entirely under the control of local authorities and is carried out by public servants. Customs inspections are carried out at both departure and arrival terminals to

control the import and export of goods. In most countries, customs inspect random or specific passengers at the airport, asking them to go through additional security and baggage check.

Based on the experience of the experts interviewed, the customs control agent should have good communication skills, as the work requires interaction with different people. People can be aggressive or nervous, and customs agents should be able to handle the situation by finding a way to communicate with the person in the gentlest way. Customs control agents are similar to border control agents. Both are required to have a specific educational qualification as well as a high school diploma. Most necessary knowledge and skills are gathered during the training process.

Today, most customs checks are done occasionally or with certain passengers who show signs that they may be carrying something prohibited. In addition, customs inspection can be carried out on the basis of the passenger's country of arrival.

Future

According to the findings, none of the experts see considerable changes in customs control. Therefore, it has been concluded that the customs control agents will keep working and performing similar tasks in the future. To support the processes, innovative screening of detection technologies will be potentially enhanced to increase the quality of work. It is worth highlighting that any implemented change in the responsibilities or processes will require training. The regular mandatory training will be conducted yearly.

In conclusion, although Customs Control as a stage of a passenger journey does not operate without the presence of a person, the number of staff may decrease slightly due to enforcing technologies and equipment.

4.6 Interview summary

The questions have been shared with participants to support the interviewees and ensure a smooth interview flow in advance, helping prepare for the interview in advance and understand the study's purpose. Each interviewee has been proposed to select one or more topics to discuss. The topics could be chosen from an informed list of the stages investigated for the present research. To conduct as many interviews as possible, interviewed experts have been kindly asked to share potential contacts from their professional network who could also be interested in participating. It is worth mentioning that majority of the in-

Interviews have been opened to supporting the research and providing some contact details. This so-called chain of contacts and networks has dramatically helped this study and gave an opportunity to interview more people. Hence, more data and insights have been successfully gathered. Most of the interviews went exceptionally smooth and efficient from the organizational aspect, with limited difficulties faced during the research processes.

Overall, all interviews with experts from the aviation industry have supported the research with reliable and actual data. Since all interviewees obtain valuable background and experience in aviation, gathered information from the discussions can be considered valid for the study and potential implementation in the air transportation industry. In addition, all interviewees obtain strong knowledge and work connections with aviation. Nevertheless, they come from diverse professional backgrounds and fields. This diversity allowed the researchers to gather data and insights from different perspectives to create a holistic picture and conduct a more detailed analysis.

5 Discussion

The present chapter discusses the key findings reflecting the set research questions, also describes the faced limitations and delimitations. The reliability of the research is also covered in this chapter. Additionally, since this study and its findings have a potential value, several suggestions on practical application in the aviation industry are stated here.

Based on the research findings, the objectives set initially have been pursued. Throughout the investigation process, they helped to be focused on the original goal of the study, aiming to answer the defined questions comprehensively.

RQ1. What jobs are currently existed to support each stage of passenger journey? What are the current job requirements for such positions?

The current research explored and analysed the current and future jobs in the aviation industry on the scope of defined key stages of passenger journey where the direct interaction between employees and travellers occurs. By analysing existing literature and conducting in-depth interviews with professionals from the aviation industry, this study responds to original research questions and serves its main objectives.

Literature review supported the core understanding of the job positions, including key responsibilities and skills required of employees. Based on the analysis of existing academic and industry materials passenger journey applied in this study has been formulated. The defined passenger journey includes nine stages: Check-in, Baggage Drop, Passport control, Security control, Boarding, Flight, Border control, Baggage Claim, and Customs control. However, one employee might perform tasks at several related stages. For that reason, during the interviews and analysis of the future job positions, it was possible to combine some steps. For instance, the same employee can perform at such touchpoints of passenger journey as Check-in, Baggage drop/claim, and boarding. The tasks and responsibilities required at these stages can be under the same job position.

As mentioned, the same employee might work at Check-in, Baggage drop and claim, also Boarding stages. The job position for that person is called "Passenger Service Agent" (PSA). This employee is responsible for providing passenger services at the airport. Generally, people working in this position represent an airline and could be employed directly by the airline or the ground handling operator. It varies between the airport approaches and Service Level Agreement (SLA) between different stakeholders. The main requirements for this job position include being customer-centric, having good language skills, and at least a high school diploma. Previous experience in customer service often could

be a benefit for the employee. Most of the knowledge and skills required for this job, as well as information about the stage and tasks performed, will be provided during employee training by the company or organization responsible.

The Border, Passport, and Customs controls are similar in the job positions and requirements because authorities regulate all these touchpoints and public servants employees. The employees working there are the “control agents” and perform their job in different fields of control stages. Critical requirements for control agents are to be attentive to details, have good communication skills, and have knowledge of the related laws and regulations. In addition to that, they need to have specific educational qualifications in their field along with a high school diploma. Commonly the training for airport operations is done before starting the work.

At a stage of the traveller's journey, a flight attendant or cabin crew member is the employee who mainly interacts with passengers during the flight. Their primary responsibilities are to provide safety, security, and good customer service on board. Therefore, such skills as good communication skills and knowledge of the local and English language are required for potential flight attendants by airlines. Massive training is conducted for each cabin crew member before starting the job. The training includes all information about safety and security aspects, along with customer services and the company's policies. To start a job as a cabin crew member, there is no need to have a specific educational background except for a high school diploma.

Current jobs at the stages of the passenger journey require customer service skills, good attention, and motivation to work. All essential knowledge to start the job will be provided during the mandatory training. To maintain the performance and support employees' qualification, it is recommended to update and conduct training regularly.

RQ2. How might the current positions change in the future? What could be the main trends behind these changes?

According to this study, digitalization is the most implemented trend already and in the future. It has a significant impact on the job positions, forcing them to modify the responsibilities and skills of employees. Based on the results, it can be highlighted that each stage of the passenger journey defined here will be enhanced with versatile, innovative technologies and devices. Despite this, two critical factors always need to be considered with digitalization: sustainability and the human factor.

Undoubtedly, technology dramatically supports the efficiency of the process and operations, making the journey as smooth as possible. However, implementation of any technology requires investments and might lead to extra costs, which can delay the time for its enforcement. In addition to that, the sustainability aspect plays a crucial role in aviation development. Since applying tech equipment or innovations means using resources, also various electrical sources for manufacturing and implementation, it can cause some controversy from a sustainable perspective. It can be questionable for the passengers and modern societies, especially when it comes to considering aviation as a way of traveling.

At the same time, the benefits that digitalization can bring to aviation cannot be denied. First and foremost, as mentioned earlier, technology will boost the quality of provided services and increase productivity. Thus, positively influencing passenger journey and level of provided services could potentially make aviation more attractive for traveling. From a corporate social responsibility (CSR) aspect, technologies greatly support employees by taking care of manual work. During the interviews for the present study, this has been proved and justified by professionals. Conclusively, it is valuable to note that the research findings endorse that even though digitalization will be more and more implemented, it cannot fully substitute and eliminate the human factor that will remain needed. Technology will keep supporting people, not replacing them.

RQ3. What kind of skills and competencies might be needed in the future for the employees working at each stage of the passenger journey?

As discussed earlier, more and more technologies and devices will be potentially implemented at each stage of the passenger journey. For that reason, employees will be expected to know at least some basics about these technologies. Additionally, they might need to be aware of using, controlling, and maintaining the equipment. It could be helpful for personnel to be ready to provide proper support if required, ensuring a smooth passenger experience. That is why basic IT skills and understanding of different digital systems might become a vital requirement for the job positions studied in this research. Without an understanding of digital processes, the employees would not be able to provide quality services and guidance for the customers.

Due to the previous and earlier discussed aspects, most of the manual work will be performed by technologies. Nevertheless, only people can take care of human interactions and communications tasks. Therefore, such skills as customer service and relationships have been identified as potentially needed for the employees in the aviation industry.

The investigated trends and changes in the aviation industry could be fulfilled by adjusting the training process and adding new essential modules to agendas.

Limitations and delimitations

Present research obtains certain limitations as well as delimitations. According to Miles (2019), limitations are defined as uncontrolled factors affecting the research process and results. The limitations of a study are inherent in the methods and procedures utilized in a research study. These factors can limit the study's findings and scientific integrity. Limitations are discussed, addressing potential weaknesses and awareness of methodological approach and design of the research. At the same time, understanding the study's limitations positively affects the credibility. (Miles, 2019) Several limitations have been identified in this research.

First of all, a method for collecting data has been limited to personal interviews with industry experts. Interviews had a time frame that has been agreed with participants in advance. This constraints the amount of data gathered during the set period. To minimize time-constrain, the research questions have been provided to interviews in advance, allowing to prepare in advance as well reducing time spent on familiarizing with questions during the interview. Another limitation is the lack of contacts professionals working directly at customs and passport control stages. Aiming to decrease the impact of these limitations, the data has been gathered through interviews with people working closely or indirectly with these areas.

Delimitations, however, as Miles and Scott (2017) have stated, mean the self-induced restraints of the research. Delimitations might also impact the populations of the investigation, generalizing the study. (Miles, 2019) Overall, by delimitating the research, authors narrow the focus on concrete areas. Some delimitations restricted the study. Delimitations are the characteristics that limit the scope of this research. These conditions were identified during the preparation of the study. Therefore, the below delimitations have been applied for this study.

The first delimitation is related to the stages of the passenger journey. The intent of this research is to focus on touchpoints between passengers and employees where direct interactions happen. In addition to that, aiming to conduct a deep investigation within the period of set research time passenger journey map has been narrowed down to 9 stages: Check-in, Baggage Drop, Passport control, Security control, Boarding, Flight, Border control, Baggage Claim, and Customs control. This study has also been delimited to researching employees in aviation industry organizations without assessing other types of

organizations in the geographical scope of the European Union. In order to minimize the delimitation of the organizations in where the study will be conducted, the data has been gathered from the possible aviation companies and stakeholders. Another delimitation of the current study is to collect a comprehensive overview of the situation with employee responsibilities, skills, and training at each stage of the presented passenger journey. To mitigate this delimitation, interviews have been arranged with professionals from the high leadership level, such as qualified professionals, supervisors, operational specialists, and others. Moreover, such requirements towards interviews as work experience, professional background, and others have been well-considered.

Reliability

The various steps in the research process are used to support the reliability of the study. Aside from the interviews, the test questions were also thoroughly analysed to see if they could provide reliable results. Based on the outcomes from the pilot interview, the questions have been adjusted positively, affecting the final data. Moreover, the findings and recommendations were derived from the interviews with professionals from different companies and diverse experiences. The findings of this study revealed that the participants were able to share valuable insights and opinions based on both professional and personal experiences. Interviewing experts from aviation industry provided study with first-hand information ensuring the reliability of the outcomes. Furthermore, since all interviews have been recorded upon, most importantly after receiving verbal or written consent, more detailed analysis has been conducted. Results have also provided an opportunity to analyse and compare the data collected from other interviewees. Last but not least, since two researchers have been investigating the present study's findings, the trustworthiness is significantly increased.

Practical application

Based on the reasons mentioned above, the study and findings can be considered reliable and valid. For that reason, the results might be applied to the aviation industry in several ways. First and foremost, aviation is constantly changing, and it is crucial to embrace these changes and adopt them. According to ICAO (2014), in the industry, most changes are related to new legislation or technology. Thus, training and operations are forced to be modified to improve things. Reviewing trends and regularly assessing the training processes help to plan how necessary changes and training can continuously contribute to making the aviation industry safer and efficient. (ICAO, 2014) Since this study analyses the current and future skills and modifications in employee responsibilities, findings can be

beneficially implemented in training. For instance, the current training process can be updated by restructuring the plans and adding new modules based on potentially demanding qualifications. The possible directions of development in the aviation industry also highlighted trends and skills in the research that can create a valuable base for employee training.

Moreover, another potential implementation of the research outcomes can be taken by aviation stakeholders and organizations to update and reorganize service processes. Understanding where digitalization will be enforced more allows to define and plan where it is valuable and practical to keep employees. Service level together with safety can be well-improved by reducing manual work for some processes and properly reallocating the human interaction at certain stages.

In general, many aspects of aviation are constantly evolving, affecting daily operations. They push not only reorganizations of the processes and services but also updating responsibilities and required skills of employees adjusting the job positions. However, as ICAO (2014) stated, the aviation industry being a very dynamic environment is one characteristic that will never change.

6 Conclusions and recommendations

The aviation industry is greatly affected by constant changes and developing trends. Vast working processes and the number of worldwide stakeholders involved regularly shift the industry in various ways. To remain competitive and keep a strong market position, aviation tends to adapt most of these changes. Implementing innovations and technologies, updating employment requirements according to demands, modifying training processes, and more develop aviation industry.

This study demonstrates the critical findings from reviewing academic and industry materials as well as conducted interviews regarding the main upcoming changes in the aviation industry's job market. The results of this thesis work could be used as a base for further research concerning employment, personnel training, or evaluation of future trends. In addition, the descriptive analysis of the changes in process, skills, job requirements, and training could beneficially support the potential developments.

With the focus on the job positions directly interacting with passengers on their journey touchpoints, the present research has been produced. Applying a similar approach to methodology and data collection process, there are possibilities to create potential studies investigating the positions with indirect interaction between employees and passengers but playing a crucial role in passengers' journey. The researched outcomes demonstrate the central tendencies at each stage of the journey foreseen in the aviation industry. For instance, analysis of baggage handling processes revealed the trends among the processes and their impact on the employment shifts.

In addition, this study describes an analysis of current and future educational processes. In the field of personnel training, there are several trends and approaches. Detailed research on education is moving from the present to the near future. The current thesis can provide a solid background on changes that can be utilized to study educational processes further.

During the passenger journey stages, experts can see the development and deployment of innovative technologies and automation. They believe that technologies do not entirely replace people but instead increase the quality and efficiency of service. Using an employee profile and data from current research, a study could be made to determine the usefulness of the technologies. Productivity analysis of employees and a particular point of contact could continue the study.

Furthermore, future changes will also affect customers. The following study could measure and analyse customer experience and satisfaction before and after introducing automated technologies. Are customers more satisfied with fast self-service, or are they missing customer service staff during their trip?

To summarize, the aviation sector is directly or indirectly affected by a considerable number of factors in the world. However, airlines, authorities, and employees are willing to adapt to the new trends and changes in the industry worldwide.

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Appendices

Appendix 1. Criteria for interview participants

Criteria	Inclusion	Exclusion
Gender	Male, Female and other	-
Age group	25 to 90 years old	0 to 24; over 90
Ethnicity	Any ethnicity	-
Nationality	Any nationality	-
Industries and / or Occupations	Aviation industry. Airline: Check-in; Boarding; Flight. Legislative bodies and authorities: Passport / Border control; Security check; Customs check. Ground Handling: Baggage handling. Consultation companies, organizations for above.	Non-Aeronautical operating revenue sources (for example, Stores & Retails, Restaurants/Cafes/Bars, Car rentals etc.)
Career level	High leadership level Intermediate (Semi-qualified professionals); Experienced (Qualified professionals, Higher qualified professionals); Advanced (Supervisors, Team leaders, Foreman)	Entry level (Interns, Trainees, Non-qualified professionals); Expert (Intermediary executives, Top executives)
Expected work experience in the related field	Over 3 years	Less than 3 years
Geographical scope	European Union	Asia, Africa, Australia, North America, South America

Appendix 2. Email template for interviewee

Dear [name],

Hope you are doing well. We are Artem Zakharov and Veronika Ovsiannikova, the students of Aviation Business program from Haaga-Helia University of Applied Sciences, Finland.

Your contact information has been kindly shared to us by [name].

Currently, we are working on our thesis project in collaboration with one relevant and well-known organization in the aviation industry. The topic of the project is dedicated to re-searching current and future job market in the aviation industry.

Since you are an expert in the field of [touchpoint], we would like to arrange an interview with you to discuss more about it. The interview will take around 40-50 min.

We would highly appreciate an opportunity to interview you. Imagining how tight your schedule is, we would be glad if you could find a timeslot for online meeting with us.

Please kindly let us know about the possibility and schedule for this meeting.

Thank you in advance for your interest and reply.

Sincerely,

Artem Zakharov and Veronika Ovsianikova

Aviation Business Students, Bachelor of Business Administration

Haaga-Helia University of Applied Sciences,

Porvoo Campus

Appendix 3. Interview questions

Block 1: Current situation

1. Could you please describe the [stage of the passenger journey]? What are the objectives of it and job description?
2. Who works at this stage (employee profile)? How is this job position called?
3. What are the key employee's responsibilities here?
4. What are the skills required for this job? Why these?
5. What are the background requirements, past experience? Why are these needed?
6. Does this position require any special training? Why?
7. If yes, then what kind of training will be conducted? Why this type of training?
8. What type of delivery for the training will be (online, offline etc.)? Why? / How the training will be done? Why this way?
9. Where will the training take place (inhouse, outsourced)? Why this way?

Block 2: Future

10. How do you think [stage of the passenger journey] will be changed in the future (5-10yrs)? Why?
11. How do you see these changes impact the employees? Why? (Follow up, do you believe these changes generate staff reduction or?)
12. How will the responsibilities look like? Why these responsibilities?
13. Will the skills required for this job position be changed? How? Why?
14. Will these changes influence the background requirements? How? Why?

15. Due to the described earlier changes, do you believe will the training (maybe some special training) be needed? Or alternatively, how the current training process will be modified? Why?

16. How do you see these changes affecting the job positions (more will be created or reduced etc.)? Why?