

The Impacts of Covid-19 on Staff Training Within the Aviation Sector

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Abstract: Aviation is among those industries that were most heavily impacted and disrupted by the Covid-19 pandemic. The impacts were most severe in passenger traffic where the amount of seats offered dropped by 50% during 2020 causing airline revenue loss of 371bn USD. Air-traffic cuts exceeded 90% in some areas. Covid-19 pandemic had many indirect impacts on air travel services, including how staff training is carried out. Although the pandemic has had massive negative influences in different areas of life, it has opened doors to new innovations and developments as well. A giant leap forward has taken place in online education, which this study focuses on from the specific viewpoint of air travel service providers. Attempts to contain the spread of Covid-19 lead to school closures and by the beginning of April 2020 the pandemic had impacted over 90% of the world's total enrolled learners. Similarly 188 country-wide school closures took place globally. This led to boost in online education – possibly the greatest growth of all time was seen. In aviation sector the impacts are evident as well, mostly reflected by the ways how staff training is delivered at airports. Organizations in air traffic chain had to adapt to the changed operational landscape, new health and safety risks and learn to comply with new regulations. Staff skills and competences were in the middle of this. This case study examines these developments in international air transport context during 2020 and 2021. We will look at various examples in aviation industry organizations related to staff training, focusing specifically on how training practices have changed due to Covid-19. From the basis of these findings and experiences, the paper attempts to draw a future scenario of digital transformation of training in the industry. Case studies are based on courses developed and provided by Airport College (AC) which is a private online training academy serving the global aviation sector with digitally enhanced training solutions.

Keywords: aviation, training, online learning, digital transformation, VR, workplace

1. Overview

Due to the COVID-19 pandemic, in early 2020 the world entered an unexpected era of disruption which impacted the mobility of people. Nation-wide lock-downs that took place in 2020 had a specific negative impact on international travel and tourism which was down by 72% in 2021 compared to figures of 2019 (measured by # of international tourist arrivals). Similarly export venues from international tourism decreased by 1 trillion US Dollars globally. (World Tourism Organization 2022) From the perspective of travel and tourism the most immediate outcome of pandemic-related restrictions was that international travel decreased very fast. Part of this turned to the benefit of domestic travel with substantial increase in “safe” ways of travel (such as cottage holidays). The situation led to many changes in consumer behavior, of which some are likely to be more permanent than others. For example, motorhome and campervan sales hit record levels in 2020-21 when people were seeking alternative ways of spending their free-time and holidays (RV Industry Association 2022). In overall the impact of Covid-19 on travel has been very negative.

This paper focuses on staff training at airports and the impacts of the pandemic on training activities. While the majority of airport staff is working in large international airports, this is also where the greatest disruptions have taken place. In this study we will review airport ground handling operations where most of the people working in airports are located. This workforce plays a central role in operations critical for passenger service and actions needed for aircraft turnaround between flights. By April 2020 the number of international flights decreased by 80% as result of flight cancellations (Santos 2020). This led to massive staff lay-offs in airport ground handling. The issue of workforce competences and how to maintain them becomes extremely critical when airport operations start to recover. Airport College International (AC) is the leading provider of online training for airport staff. This includes airlines, ground handling companies, authorities, training institutions and public organizations. Since 2012 AC has carried out pioneer work, strongly founded on research evidence, to modernize the provision of training within aviation sector. Realizing that the pandemic will have long-term impacts on many aspects of aviation, particularly on workforce development and resourcing, AC initiated this study to source understanding on the future dimensions and demands of training. This paper reviews developments related to staff training in international air transport context during 2020 and 2021 focusing on AC's two most significant target markets Finland and Asia (South-Korea specifically) where the primary data was also collected from. We will analyze the impact of the pandemic on air travel and training activities at airports. We will then examine how organizations operating at airports are adapting to the changing operational landscape with specific focus on workforce development.

2. Starting point, objectives and methods

Aviation is a largely regulated industry with comprehensive procedures defined for each work-role to ensure work is carried out appropriately and by following high standards of quality, safety and customer demands. To allow this, sets of competence requirements are assigned for work-roles. Many competences are mandatory and without them employees are not allowed to access the airport and/or work there. Compliancy training programs are designed to fulfil these competences with a requirement for recurrent training within 2 or 3 years typically. Alignment of competent workforce with respect to resource demands in daily operations set the starting point for discussion on the role of training during the pandemic and when the industry starts to recover. As result of massive layoffs of staff in 2020 it seems that many former employees have shifted to other professions. This is natural, but for airport employers the situation is difficult. If an employer quickly faces an acute demand for more employees it's likely that a sufficient amount of competent work candidates are not available. Even if former employees appeared willing to work again, they wouldn't have the required competencies anymore. Updating them takes time and resources. In a situation where traffic volumes increase substantially meeting the increased demand for workforce would be very challenging. This calls for new ways in competence development and training.

2.1 The training perspective

Understanding the impacts of Covid-19 on education is important for the scope of this study as it helps us realize both the challenges and possibilities in training provision. According to UNESCO the pandemic has impacted over 1.5 billion learners globally, representing 91,3% of the world's total enrolled learners (Unesco 2020). This population, led by educational practitioners, has been able to adopt a new means of distance learning which utilizes the great potential of digital education. In past years, companies have been in the forefront of digital learning adoption, because when applied appropriately, digital training can provide substantial added value to businesses in terms of increased quality, flexibility and significant savings in training-related costs. The IATA Aviation Human Resources Report from 2018 reported that HR leaders expect the share of digital training to increase substantially in the near future, because more efficient means of training are needed (IATA 2018). This said, very little digitalization had taken place in airport training by the end of 2019. Experiences from the educational domain in large-scale adoption of digital methods in teaching and learning are encouraging, however. They show that in a situation where change cannot be resisted anymore and ways of working need to be completely reconsidered, people are able to adapt to change. In education the pandemic didn't only have negative influences. In fact, it triggered a revolution in learning engaging millions and millions of learners and teachers around the world to exploit the possibilities of distance education and digital learning. As the past two years have shown distance working practices are emerging in a quite similar way simply because in many cases there is no alternative. When workplace training is considered, and the context of airport work specifically, the question is what kind of changes are emerging and how permanent they will be?

2.2 Key considerations

During the writing of this paper there are many speculations that the pandemic will be soon over leading to recovery in international travel and tourism as well. Whatever the future will be like, employers in aviation sector need to be able to adapt to the change that is taking place and the fact that the world around us is not likely to be the same as it was in 2019. From this starting point the key questions to answer within the context of this study are: (1) how employers can continue to maintain and develop their staff capacities, and (2) how training practices and arrangements should be adapted to meet the requirements of changed operational environment?

2.3 Methods

This study was conducted as desktop research using the most relevant aviation industry statistics (provided by ICAO, IATA, ACI), competence development reports (IATA), economical and societal data (Unesco, WTO), other available literature and interviews with industry stakeholders as data sources. AC's training records which contain global training data from hundreds of organizations in more than 140 countries were used as well. The insights of aviation leaders were used to source understanding on the challenges and potential solutions.

3. Results

This section provides a statistical overview of the state of training in airport operations during 2020 and 2021 focusing on Asia (South-Korea in particular) and Finland. It attempts to illustrate the impact of changed demand

and operational requirements on workforce training to understand what kind of actions and solutions are needed to training workforce for tomorrow's needs.

3.1 Statistical view of air travel volumes

Assuming that airport staff training activity is somehow dependent on air traffic volumes we will first have a look at how the pandemic impacted air traffic volumes. Statistics show that there are significant differences between countries and regions as well. For example, China experienced the deepest and most urgent decrease in air traffic volumes by as early as mid-February 2020. Soon after, air traffic volumes started to rise reaching pre-pandemic levels by the end of September 2020. In Japan the decrease was more moderate hitting bottom levels in the end of May 2020. However, by January 2021 air traffic volumes in Japan were still over 30% behind pre-pandemic levels. In this regard, South-Korea follows the same pattern with Japan. There are significant variations in Asian countries. Resurgence of Covid-19 during the third quarter of 2021 led to new travel restrictions decreasing global air traffic volumes again (Airports Council International 2021).

Statistics from Finland are less encouraging. Finland hit the bottom in air traffic volumes also in April 2020 with massive 99% decrease. This is partly explained by Helsinki airport's position as the gateway from Europe to Asia where the pandemic evolved most aggressively in the spring of 2020. Figures from domestic air travel are similar, however (Statistics Finland 2020a). The situation didn't improve much during 2020 with >90% less volume compared to pre-pandemic levels (Statistics Finland 2020b). Globally, air traffic seems to recover slowly. Report from December 2021 provided by IATA shows 45,1% decrease in global air traffic compared to 2 years before. The same report claims that the overall travel demand seems to strengthen now, despite the emergence of Omicron variant in December 2021. It's expected that the confidence to travel will increase in 2022 with clear signs of recovery in many countries (IATA 2022).

3.2 Impacts on training activity and skills demand

Next, we will examine changes in training volumes in two different training markets – South-Korea and Finland. Training statistics cover staff training records maintained by AC at 7 airports in South-Korea and 12 airports in Finland. Following the development of traffic volumes due to the pandemic, training statistics show a major decrease in training volumes starting from April 2020. In South-Korea, there was a decrease of 77% in online training volumes compared to 4/2019. In Finland, a drop of 60% in training volumes was seen. This reflects the fact that Asian countries were most acutely impacted by the pandemic and the greatest negative impact in Finland was seen in May 2020 (with 89% decrease compared to 5/2019). Interestingly, both target markets seem to have reached 2019 levels in training activity by the end of 2021. This shows that although the pandemic is still on-going with high global infection rates, companies providing airport ground handling services are active in preparing their workforce for the recovery of operations. Recovery of operations is expected to require many permanent changes in how operations are carried out airports. Preparing workforce for this new normal by training seems to be in progress.

The greatest impact on training activities in airport ground handling operations due to Covid-19 has been the shift of operational focus from passenger traffic to air cargo. While passenger traffic volumes decreased quickly after the pandemic spread, the demand for cargo transport services increased hitting record numbers in 2021 (Kulisch 2021). This was partially impacted by decreased passenger flight capacity, as cargo is also transported in passenger aircraft. Cargo demand was boosted by urgent global demand for health supplies and quick increase in online shopping due to mobility restrictions. To allow airlines to respond to the changed situation, aviation authorities passed an exemption for air carriers to transport cargo shipments inside passenger cabins. This impacted training requirements of airport staff. Workforce that was still on duty had to participate in mandatory training programs to acquire required competencies for new operational procedures. Introduction of a range of pandemic-related sanitary guidelines and requirements for safe travel also increased the training demand.

Reports from airport ground handling companies and airlines indicate the nature of training demand and how new needs are emerging. Some training contents tend to update more frequently than others. Due to the pandemic aviation authorities had to release new requirements for operational requirements throughout the air travel chain and many of these impacted the competence requirements of airport staff. New safety and sanitary procedures impact customer service at various points of the customer service process. A particular impact is seen in the role of staff when it comes to advising passengers on new safety protocols. Considering

these aspects as part of customer service experience requires training and practice. A notable increase in the demand of customer service training at airports was identified in late 2021 (Airport College 2021). Staff competences are put to test specifically when things don't go as planned. How these situations are dealt with impacts customer satisfaction and behavior. For example, tightening safety restrictions may raise the stress levels of customers and sometimes this impacts customer behavior negatively. Courses that prepare the staff to encounter with unruly or threatening customers are an essential part of airport staff training and demand for them seems to increase due to the pandemic.

3.3 Challenges and solutions in workforce development

Some examples of how companies are adapting to the situation described earlier are reviewed next. Mobility restrictions and social distancing are not only impacting the behavior of customers and staff in customer service. The impact reaches out to working individuals and work communities as well. Due to the pandemic much of office work is still done from distance. This is a logical and easy-to-implement solution as the so-called knowledge workers can often manage well with their work tasks in distance mode. Whenever the work requires physical presence the situation turns more challenging. This is typically the case when traditional means of staff training are considered. At airports many challenges related to physical attendance to trainings can be overcome by new approaches to training and by implementation of digitally enabled courses. A group of leaders in aviation were interviewed for a White Paper released by AC in February 2021 in the midst of the pandemic to share their insights on the challenges and solutions in workforce development. The following table lists issues related to training the leaders have identified and their potential solutions.

Table 1: Challenges and potential solutions related to training at airports (adapted from Patala 2021)

Challenge	Solution
Maintenance of regulatory employee competences using face-to-face training is difficult or impossible	Provide access to online recurrent self-study training programs
More training is needed quickly due to changing business, new procedures and changed client expectations	Provide access to off-the-shelf online training courses for all employees
Changing focus of business operations creates skill-gaps (e.g. due to increasing proportional share of air cargo)	Establish online retraining programs that allow employees to extend their skills to new operational areas and responsibilities
Short supply of employees in certain operational areas (due to layoffs)	Promote multi-skilling of employees by providing access to wider online training portfolios
Possible cuts in training budgets	Increase the volume of online training to achieve training-related cost savings
More changes in operational environment are expected and they may emerge rapidly impacting competence requirements	Prepare and implement online learning delivery and follow-up systems that allow fast reaction and the scaling up of training
Changes in client companies, partners and subcontractors are likely to emerge, creating demand for custom training programs	Consider customized online training courses to quickly react to changing competency requirements

When face-to-face training is difficult or impossible to arrange, digitally enabled training solutions can create new opportunities for training provision. Experience from the field shows that employers are motivated to learn about these opportunities and they are more willing to invest in training technology. Good examples of this are simulation-based training programs and virtual reality solutions which have been available for years. The possibility to allow individuals to experience training scenarios in a simulated environment on their own might be considered safe in the given situation. However, these solutions have some advantages over face-to-face training which materialize as result. For example, rehearsal of customer service skills is less risky with a virtual client in a simulated environment than trying to learn the same skills at work with real customers. These skills are typically challenging to practise without realistic settings with authentic customers. Virtuality provides additional opportunities to prepare employees for customer encounters. This should have a positive impact on customer experience due to better prepared customer service staff. When safety is concerned, the added value of simulated training becomes more vital. Referring to the case of unruly customer behaviour, meeting unruly customers in real life can be risky without adequate preparation. A simulated approach allows employees to practise concrete actions and strategies in very realistic scenarios. This kind of contextual learning approach is evidently more efficient than training which takes place outside the actual context of work (Smith 2005).

4. Discussion

The Covid-19 pandemic has disrupted our society in many negative ways and its impacts on aviation have been massive. Crises often encourage humans to explore new means of survival and innovate for better. Workplace training in general has benefited from the pandemic in many ways. Digitalization which never before really executed in large scale, finally seems to evolve providing various benefits for employers. A positive finding from the aviation training context is that employers have continued to train their staff quite soon after the biggest disruption caused by the pandemic. Competent staff is considered a valuable asset in terms of maintaining organizational capacity and ability to respond to new needs emerging during recovery. New and more flexible ways of providing training to employees are expected to emerge as response to more rapid changes in operational environment and competence requirements. These developments seem to follow the general trends that are emerging in workplace training. Increasing demands for upskilling and reskilling employees to fulfil skill-gaps and the increasing importance of compliancy training are top priorities for HR leaders. Time and cost pressures are impacting training more than ever before creating demand for more efficient, digitally enabled training concepts and solutions (Udemy 2021, LinkedIn 2021).

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