



# Aviation Students' Opinions on Future Employment Prospects Caused by the Economic Consequences of the Covid-19 Pandemic

Dietmar Tatzl<sup>1</sup>, Simone Sporer-Fellner<sup>1</sup>

FH JOANNEUM University of Applied Sciences, Austria<sup>1</sup>

## Abstract

*The Covid-19 economic impacts on civil aviation have been severe and may thus have complicated employment prospects for aviation graduates. It was the aim of this empirical study to probe into aviation students' views on their opportunities in the labour market after the coronavirus pandemic.*

*A total of 42 students (35 undergraduates and 7 postgraduates) aged 20 to 55 years participated in the study. Of these, 27 students had no work experience, and 11 participants had work experience in the aviation industry from 1 to 40 years. A tailor-made questionnaire was distributed electronically to students in their final bachelor's and master's years. It contained demographic questions as well as questions about participants' opinions on future employment prospects caused by the economic consequences of the coronavirus pandemic. The response formats consisted of Likert scales, single-choice items, and free-choice items. Descriptive statistical data analysis was conducted with IBM® SPSS® Statistics software.*

*In general, participants rated aviation graduates' opportunities to find employment within six months after graduation as rather poor. The sectors manufacturers, international organisations, suppliers, and air traffic management were rated as most resilient towards the economic consequences of the coronavirus pandemic, whereas the sector airlines was considered least resilient. Students also stated that, in their opinion, it would take 1 to 15 years or on average 5.6 years until the employment market in the aviation industry had fully recovered from the coronavirus pandemic.*

*These results imply that the prospective aviation graduates in this study assess the possibility of finding employment within six months after graduation as rather poor. This makes the students' strategies for mastering such critical situations all the more important. More than half of the participants surveyed named active strategies to increase their attractiveness in the labour market. The students' relatively high degree of initiative and motivation in their intended approaches to tackle this economic crisis indicates reasonable levels of confidence and resilience. This study may prove useful for university teachers and educational experts in strengthening students' resilience in times of crisis through pedagogic support.*

**Keywords:** aviation, resilience, economic crisis, pandemic, employment, students

## 1. Introduction

The global Covid-19 pandemic plunged the aviation industry into a severe crisis in 2020. Passenger air traffic collapsed as a result of travel restrictions and border closures. Airlines and airports dismissed parts of their employees and put others on short-time work. Such crises test the resilience of labour markets, individuals, and whole societies. In the wake of the coronavirus pandemic, the aviation sector has been diagnosed as rather ill-prepared for disasters [1, p. 11], which reveals it as non-resilient to global crises with negative consequences for persons in search for employment. In humans, resilience has recently been defined as "a domain and context specific emergent property of the interactions between the individual and their contexts" [2, p. 34]. With the economic consequences of the pandemic in mind, it was deemed judicious to gather aviation students' opinions on the state of the industry, the challenges they foresee when searching for employment, and any strategies they would adopt to overcome pandemic-induced hindrances. This study thus aimed at detecting potential ways of preparing final-year aviation students for crises in the workplace to strengthen their resilience.

## 2. Methods

A survey was conducted in 2020 by means of a specifically designed questionnaire, which was distributed electronically to aviation students in their final bachelor's and master's years. The survey instrument consisted of demographic questions and questions gathering participants' views on the economic consequences of the coronavirus crisis for future employment prospects in aviation. The



response formats included Likert scales, single-choice items, and free-choice items. Descriptive statistical data analysis was conducted with IBM® SPSS® Statistics software [3].

### 3. Results

The study included 42 aviation students (35 undergraduates and 7 postgraduates) enrolled at an Austrian university of applied sciences. Participants were 20 to 55 years old, with 6 female and 36 male students. They had varying working histories in the aviation sector: 27 students had no work experience, whereas 11 participants had previously worked in aviation for 1 to 40 years. Tables 1 and 2 show the work experience of the respondents.

**Table 1: Descriptive statistics of students' work experience**

WORK EXPERIENCE (YEARS)	<i>N</i>	<i>M</i>	<i>Min.</i>	<i>Max.</i>	<i>SD</i>
	38	2.44	0	40	7.80

Note. *N* = 42; Missing *n* = 4

**Table 2: Frequencies of students' work experience**

WORK EXPERIENCE	Frequency	Percent
No work experience	27	64.3 %
Work experience	11	26.2 %
Missing	4	9.5 %

Note. *N* = 42

Students regarded the sectors *manufacturers*, *international organisations*, *suppliers*, and *air traffic management* as most resilient towards the economic consequences of the coronavirus crisis (Table 3), whereas they rated the sector *airlines* as least resilient (Table 4). In their opinion, it would also take 1 to 15 years or on average 5.6 years until the labour market in aviation had fully recovered from the coronavirus pandemic and its economic repercussions.

**Table 3: Sector resilience towards the economic crisis**

RESILIENCE	Frequency	Percent
Manufacturers	9	21.4 %
International organisations	8	19.0 %
Suppliers	7	16.7 %
Air traffic management	7	16.7 %
Airlines	4	9.5 %
Cargo transport	2	4.8 %
Airports	1	2.4 %
Civilian contractors with military contacts	1	2.4 %
Big companies	1	2.4 %
Private aviation	1	2.4 %
Missing	1	2.4 %

Note. *N* = 42



**Table 4: Sectors with least resilience towards the economic crisis**

LEAST RESILIENCE	Frequency	Percent
Airlines	34	81.0 %
International organisations	3	7.1 %
Suppliers	2	4.8 %
Airports	1	2.4 %
Manufacturers	1	2.4 %
Invalid	1	2.4 %

Note.  $N = 42$

Turning from the sector resilience part to individual resilience, the most frequently cited strategies for success in the employment market were *professional initiative* (e.g., writing applications, being open to new opportunities) and *further education* (e.g., gaining skills, embarking on additional academic studies). As Table 5 shows, *passivity* (e.g., wait out crisis, be patient) was the least frequently mentioned advice from students for aviation graduates entering the labour market.

**Table 5: Advice for aviation graduates entering the labour market**

ADVICE	Frequency	Percent
Professional initiative	15	35.7 %
Further education	10	23.8 %
Passivity	7	16.7 %
Missing	10	23.8 %

Note.  $N = 42$

Maintaining a positive outlook on life combined with either professional or leisure activities were mentioned most frequently as personal coping strategies of participants (Table 6), whereas negative emotions ranked lowest in the answer categories.

**Table 6: Personal coping strategies of participants**

	Frequency	Percent
Positive attitude	17	40.5 %
Activities	11	26.2 %
Professional activities	6	14.3 %
Leisure activities and recreation	5	11.9 %
Following Covid-19 rules	6	14.3 %
Negative emotions	3	7.1 %
Missing	5	11.9 %

Note.  $N = 42$

#### 4. Discussion

Students' opinions on sector resilience in aviation seem to be partly in line with observations from other studies. A recent data mining analysis of 18 US airlines attested a sudden and dramatic loss in profits as a result of the coronavirus shock [4, p. 10], and students named *airlines* as the least resilient sector (Table 4). In the context of personal resilience, it is remarkable that the respondents of this survey, with their active strategies for professional initiative and further education, epitomized what has been suggested as the very constituents towards a pedagogy for resilience in the literature: "competencies for learning, world awareness and social engagement" [5, p. 88]. Resilience may be

nurtured by means of “[l]earning opportunities within a supportive educational context” [6, p. 69], which raises the question of how educators can best promote this skill in students.

To answer this, it may be fruitful to consult current industry data, particularly as the coronavirus pandemic has merely catalyzed disruptive changes already gaining momentum in the global economy, such as the digital revolution, automation, and artificial intelligence, or, as Montague et al. phrase it, “change is now constant” [7, p. 178]. There is indeed an “increased need for soft skills among university graduates” [7, p. 161], or, in other words, “human strengths” [8, p. 3]. Communication, for instance, has been identified as the most valued and hardest to find soft skill for the digital age in a survey of 20 000 employers from 42 countries [8, p. 6]. For the transportation sector, a large-scale World Economic Forum survey lists “[a]ctive learning and learning strategies” as the top skill in high demand, and “[r]esilience, stress tolerance and flexibility” among the top 15 ranks [9, p. 148]. Aviation students in the current study showed a preference for professional initiative, further education, and activity, as well as a positive attitude in the face of crisis (Tables 5 and 6), which indicates that they have developed reasonable levels of confidence and resilience. By targeting those soft skills in high demand from industry, educators may foster resilience of graduates for future economic downturns and labour market slumps.

## 5. Conclusions

In the literature, there have been recent calls for “ongoing career support within programmes” [10, p. 158] and “career education” [7, p. 161] to link graduates to the world of work. Under the current economic circumstances, this study has crystallized the importance and need for a pedagogy for resilience based on human strengths. Such a pedagogy may emphasize communication in English, learning strategies, learner autonomy, self-management, media consumption, critical thinking, social interaction, and personal development as course or module contents. The data from the current survey and industry suggest that a broad skills set and the cultivation of human strengths equip students for challenging and disruptive times after graduation and in their working lives. We as educators need to establish the necessary framework and learning opportunities that will help students to hone their skills and strengths.

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