

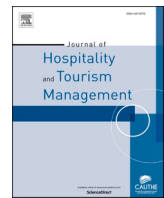


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# Are airline workers planning career turnover in a post-COVID-19 world? Assessing the impact of risk perception about virus infection and job instability

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## ABSTRACT

Airline workers have been suffering risks of job instability and virus infection since the outbreak of COVID-19. This research developed a novel framework explicating airline workers' career turnover decision formation by considering the influence of perceived risks of virus infection and job instability during the COVID-19. A quantitative approach using a survey method was utilized to attain research goals. Our empirical findings revealed that airline image, attitude, and commitment have a significant influence on employee career turnover intention. Both attitude and commitment were identified as essential mediators. In addition, perceived risks of virus infection and job instability significantly moderated the relationships among attitude, commitment, and employee career turnover intention. The effectiveness of the proposed theoretical framework for career turnover intention was demonstrated. Our findings help researchers and entrepreneurs find effectual ways to lower competent workers' career turnover and raise their approach behaviors in a post-COVID-19 world.

## 1. Introduction

The hospitality and tourism businesses have been undergoing a severe crisis ever since the coronavirus disease (COVID-19) outbreak (Bajrami et al., 2021; Bufquin et al., 2021; Chua et al., 2020; Williams et al., 2020). The airline industry has been especially hard-hit by the pandemic, leading to a steep drop in financial performance as well as an increase in employee career turnover (Abate et al., 2020; Pereira & De Mello, 2021; Sobieralski, 2020). The COVID-19 has wreaked havoc on jobs in many hospitality and tourism sectors (Radic et al., 2020; Zhang et al., 2021). Especially, airline workers' job stability becomes unsure during the pandemic crisis (Borden et al., 2020). A majority of airline workers are suffering job instability in the forms of decreased working hours, lowered welfare benefits, changed work shift/position, and increased possibility of layoffs (Maneenop & Kotcharin, 2020).

In addition, airline workers have been experiencing the risks related to virus infection since the outbreak of the COVID-19 (Amankwah-Amoah, 2020; Maneenop & Kotcharin, 2020). The characteristics of

airline jobs/services where the active human-interactions are essential (Amankwah-Amoah, 2020; Sobieralski, 2020) are boosting the risk perception of virus infection among employees. In particular, this perception toward the deleterious effect of virus infection during the pandemic era is irrefutably a severe threat to employees' stable life and mental health (Benach et al., 2014; Shoss, 2017), particularly with regard to the fact that the virus could affect employees with severe initial infections as well as long-term complications including the symptoms of shortness of breath, muscle pain, depression, or anxiety (Wamsley, 2021). Overall, airline workers in a pandemic world are unavoidably experiencing the worst risks of virus infection they ever had (Maneenop & Kotcharin, 2020).

This harsh circumstance in the tourism sector, especially airline industry, raises workers' negative feelings about their firm such as organizational distrust, unfavorable image and attitude toward the firm, and career turnover decision (Borden et al., 2020; Bufquin et al., 2021; Guzzo et al., 2021; Zhang et al., 2021). Therefore, employees in the pandemic era are irrefutably active in seeking career turnover

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opportunities to work under the safer and more stable environment (Bajrami et al., 2021; Bufquin et al., 2021). During the COVID-19, airline workers' lowered attitude toward the airline and their reduced approach responses make the airline firm's business situation even worsen (Abate et al., 2020; Sobieralski, 2020). Indisputably, recovering workers' attitude, escalating commitment, and lessening their increased career turnover are essential requisites for their airline company's normal and smooth operation in a post-COVID-19 world.

For past decades, attitude, commitment, image, and turnover decisions have been major constituents of workers' approach/avoidance responses (Ajzen & Kruglanski, 2019; Brien et al., 2017; Kim et al., 2019; Oliver, 2010; Song et al., 2015). Increase in workers' approach responses (e.g., positive attitude toward their company, commitment to it, and image of it) implies decrease in the uncertainty of the company's business in the future (Eriken & Hancer, 2015; Li et al., 2017; Kim et al., 2019). Meanwhile, an increase in workers' avoidance responses (e.g., high turnover intention/behavior) means a decrease in their company's performance and survival/success rate in the future (Bajrami et al., 2021; Kim et al., 2019). Enhancing airline workers' approach responses and reducing their avoidance response/behavior is fundamental for airline firms. From these companies, dealing with attitude, commitment, image, and turnover is an efficient way of getting ready for the post-pandemic world.

Given this, this research attempted to explore the possible associations among airline image, attitude toward the airline, and commitment, and its influence on employee career turnover intention by considering the moderating influence of perceived risks of virus infection and job instability. In addition, we aimed to assess the mediating role of attitude toward the airline and employee commitment. Moreover, we aimed to uncover the comparative relationships among study variables that determine employee career turnover intention. The remaining sections of the present research are the sections of literature review, research methods, analysis and result, and discussion.

## 2. Literature review

### 2.1. Airline image

For the past decades, company image has been regarded as a critical dimension when explicating employees'/consumers' decision formation and behaviors (Brien et al., 2017; Kanwal & Van Hope, 2020; Lojo et al., 2020; Van Hoye, 2008). According to Keller (1993), company image indicates one's general perceptions or thoughts of the company and its attributes formed based on the relationship held in his/her memory. Similarly, Kotler et al. (1993) and Lee et al. (2010) described company image as the comprehensive set of one's perceptions, beliefs, and ideas about the particular company and its features. Given these earlier conceptualizations, airline image in the present study is described as the sum of perceptions, impressions, and thoughts that airline workers possess toward their airline company as a workplace. The perceptions, impressions, and thoughts about a company are built eventually based on the company's actual relations and obtained/processed information about the company (Baloglu & McCleary, 1999; Lee et al., 2010). Hence, image generation is generally regarded as a perceptual/cognitive process (Lee et al., 2010; Oliver, 2010).

Due to the criticality of company image, this variable and its impact on human behaviors have been extensively researched in the existing literature (Baloglu & McCleary, 1999; Brien et al., 2017). Baloglu and McCleary (1999) and Lee et al. (2010) found that enhancing an image of a company/destination enhances an individual's positive attitude toward it and his/her commitment/loyalty to the company/destination. Brien et al. (2017) and Van Hoye (2008) indicated that the effects on boosting one's image of a company bring his/her enhanced attitude and attachment to the company. Workers build an image of the place where they work (Kanwal & Van Hope, 2020). The image of a company exists not only from the eyes of its current customers but also from the eyes of

the company workers (Van Hoye, 2008). Van Hoye (2008) described the image that workers have about their company as an internal company image. She asserted that this image of the company as workplace influences employees' behavioral intentions. It is undeniable that the favorable image of a firm is likely to strengthen one's approach responses/behaviors for the firm, whereas an unfavorable image is likely to reinforce his/her avoidance responses/behaviors (Brien et al., 2017; Lee et al., 2010; Oliver, 2010; Van Hoye, 2008).

### 2.2. Attitude toward the airline

Attitude is indubitably a significant factor influencing individuals' intention generation process and behaviors (Bernerth, 2020; Perugini & Bagozzi, 2001; Xiong & King, 2019). The concept of an attitude refers to one's overall assessment of whether a specific object is either favorably or unfavorably valued (Ajzen, 2012; Ajzen & Kruglanski, 2019; Manosuthi et al., 2020). In the present research, attitude toward the airline indicates employees' general evaluation concerning whether working for their airline company is positively or negatively valued. The relationships among attitude, cognition, and affect in individuals' intention generation process have been extensively tested and evidenced in the existing literature (Ajzen & Kruglanski, 2019; Manosuthi et al., 2020; Ryu et al., 2019). This attitude is also crucial when explicating workers' responses and behaviors (Bernerth, 2020; Xiong & King, 2019).

In the hospitality sector, Raub et al. (2021) investigated the consequences of work attitudes. Their finding showed that workers' job attitude influences their affective evaluation, commitment, and job performance. According to Bajrami et al. (2021), hospitality employees' attitudes toward work and company and their behaviors are considerably affected by the COVID-19. Their finding evidenced that employees' unfavorable work-related attitude during the pandemic increases their withdrawal intentions/behaviors such as low commitment and turnover intention. Workers are less committed to the company and develop career turnover intention when their attitude toward the firm is not favorable or when they have a low level of motivation (Bajrami et al., 2021; Dysvik & Kuvaas, 2010).

### 2.3. Employee commitment

An understanding of commitment is an evocative implication for comprehending understanding workers' behaviors (Kim et al., 2019; Li et al., 2021; Yuksel et al., 2010). Because of its crucial contribution to eliciting workers' positive responses/behaviors for a company, commitment to the company has primarily been an essential concept in the organizational behavior context of the hospitality and tourism industries (Eriken & Hancer, 2015; Kim et al., 2019; Li et al., 2017). Generating and upholding employee commitment is an essential concern for every entrepreneur in diverse hospitality and tourism sectors (Li et al., 2017; Song et al., 2015; Wombacher & Felfe, 2017; Yao et al., 2019). Building such employee commitment is regarded as the process of generating an emotional/conative tie between an employee and his/her company (Yao et al., 2019; Yuksel et al., 2010). Similarly, Song et al. (2015) described the commitment as an employee's affection to a particular organization together with his/her belongingness feeling to the organization. In this regard, airline employee commitment in this study refers to employees' emotional bond and their feeling of belongingness to their company.

Employee commitment plays an essential role in explaining employee behaviors (Eriken & Hancer, 2015; Kim et al., 2019; Li et al., 2021; Song et al., 2015; Yao et al., 2019). Many studies in the existing literature evidenced that the strong commitment to an organization among employees reduces their turnover, makes their interactions with customers to be more positive, increases citizenship behaviors, and eventually brings business profits to the organization (Kim et al., 2019; Eriken & Hancer, 2015; MacKenzie et al., 1998; Song et al., 2015). Undeniably, workers' strong commitment to their company decreases

their readiness to quit their current job and search for new job opportunities (Eriken & Hancer, 2015; Li et al., 2017; Wombacher & Felfe, 2017). This means that workers' avoidance intention/behavior to the company decreases when they feel a strong emotional bond and belonging to their organization (Li et al., 2021; Yao et al., 2019).

#### 2.4. Perceived risk of virus infection and job instability

The perceived risk and job instability during pandemic cause both significant physical and mental health complications. According to the theory of job insecurity, which is described as "perceive powerlessness to maintain desired continuity in a threatened job situation" (Greenhalgh & Rosenblatt, 1984, p. 438), individuals feel insecure when they perceive they have no power to resist threats with regard to their job. The effect of job insecurity creates detrimental consequences in employees' organizational behavior, e.g. decreased intrinsic motivation or increased turnover intention (Staufenbiel & König, 2010). In particular, given that the COVID-19 has been showing both a high infection rate and mortality rate, employees experience the fear of virus infection, which negatively lead to psychological health issues such as anxiety and depressions (Chen & Eyoum, 2021).

Perceived risk is one's subjective judgment concerning the possibility of negative occurrences (Han, Yu, & Kim, 2019). This concept is one's beliefs about potential harms or the likelihood of a loss (Olya & Han, 2020). An individual perceives such risk both in a physical way (e.g., disease, death) and in a mental way (e.g., stress, instability) (Brown, 2014; Han, Yu, & Kim, 2019). This risk perception is regarded as a personal subjective process of one's decision-making, especially when deciding about physical and mental health/safety (Brown, 2014). According to Simpson and Siguaw (2008) and Al-Ansi et al. (2019), the critical facet of perceived risk in employee (or customer) behaviors in the tourism context is an individual's concern. Perceived risk comprising this concern encompasses fear, tension, nervousness, and distress associated with working among employees (or traveling among tourists) as its components (Olya & Han, 2020; Reisinger & Mavondo, 2005).

Consistently, in the present research, perceived risk indicates an individual's concern about the potential harm/loss and risks of fear/stress/anxiety stemming from being a worker during the COVID-19 pandemic (Han et al., 2020; Olya & Han, 2020). Indeed, in a pandemic world, airline employees face the potential risks of virus infection and job instability (Maneenop & Kotcharin, 2020; Sobieralski, 2020). Airline employees' concern/perception about the chances of getting infected by virus and of being laid off is more significant than ever in the current airline industry (Abate et al., 2020; Sobieralski, 2020). This uncertainty pertinent to virus infection and job insecurity is irrefutably a severe threat to employees' stable life and mental health (Benach et al., 2014; Shoss, 2017), particularly in the pandemic era (Bajrami et al., 2021; Han et al., 2020).

For a long time, the concept of risk perception has been an essential subject of diverse studies in various sectors (Law, 2006; Olya & Han, 2020; Reisinger & Mavondo, 2005). Particularly, perceived risk and its influence on human responses/behaviors in hospitality and tourism have been largely researched (Han, Yu, & Kim, 2019; Simpson & Siguaw, 2008). In particular, researchers stressed that the probability of serious incidents/insecurity while working/traveling increases workers'/travelers' risk perception in the tourism context (Al-Ansi et al., 2019; Olya & Han, 2020; Shoss, 2017). When they have a high level of concern about the probability of incidents/insecurity, they are likely to avoid the working/consumption activity or put off their related plan (Bajrami et al., 2021; Han et al., 2020; Law, 2006). This means that workers'/travelers' decision-making processes and behaviors are considerably affected by their risk perception (Law, 2006; Reisinger & Mavondo, 2005). Indubitably, this perceived risk is also crucial in explicating the process of generating employee favorable/unfavorable responses and behaviors (Han et al., 2020; Wong et al., 2021). Indeed, perceived risk and its importance have been supported in recent studies

(Al-Ansi et al., 2019; Han, A-Ansi, & Kim, 2019). These studies demonstrated that individuals' perceived risk as a moderator influences their decision formation and behaviors.

#### 2.5. Proposed theoretical framework and hypotheses

The hypothesized model comprised airline image, attitude toward the airline, employee commitment, perceived risk of virus infection, perceived risk of job instability, and employee career turnover intention. This model included a total of seven hypotheses. Hypotheses 1–5 are about the causal associations among study variables. In addition, Hypotheses 6a, 6b, 7a, and 7b are about the moderating influence of the perceived risks of virus infection and job instability.

- H1.** Airline image has a positive effect on attitude toward the airline.
- H2.** Airline image has a positive effect on employee commitment.
- H3.** Attitude toward the airline has a positive effect on employee commitment.
- H4.** Attitude toward the airline has a positive effect on employee career turnover intention.
- H5.** Employee commitment has a positive effect on employee career turnover intention.
- H6a.** Perceived risk of virus infection has a significant effect on the association between attitude toward the airline and employee commitment.
- H6b.** Perceived risk of virus infection has a significant effect on the association between attitude toward the airline and employee career turnover intention.
- H7a.** Perceived risk of job instability has a significant effect on the association between attitude toward the airline and employee commitment.
- H7b.** Perceived risk of job instability has a significant effect on the association between attitude toward the airline and employee career turnover intention.

### 3. Methods

#### 3.1. Measures

This study adopted measurement items from the existing literature on employee behavior and social psychology (Ajzen & Kruglanski, 2019; Kim et al., 2019; Lee et al., 2010; Oliver, 2010; Olya & Han, 2020; Song et al., 2015; Wong et al., 2021). Multiple items with a seven-point Likert scale were used for the evaluation of study variables. Specifically, airline image was measured with three items (e.g., "I have a positive image of this airline."). Attitude toward the airline was measured with four items (e.g., "For me, working at this airline is bad [1]/good [7]"). Employee commitment was measured with three items (e.g., "I feel a strong sense of belonging in this airline"). To evaluate perceived risk of virus infection, three items were used (e.g., "I feel concern about contracting infection from customers"). For the assessment of perceived risk of job instability, four items were used (e.g., "I feel concern about layoffs"). Lastly, three items were utilized to measure employee career turnover intention (e.g., "I have searched for a new job within the past 12 months"). The draft version of the survey was prepared containing the study description, measurement items, and demographics. A pre-test was conducted with 20 aircrews. Based on the pretest result, we modified and improved the draft version of the survey questionnaire. Afterward, airline experts reviewed and finalized the questionnaire.

**Table 1**  
Measurement model and data quality testing (n = 330).

Constructs	(1)	(2)	(3)	(4)	Mean	Standard deviation	CR	AVE
(1) Airline image	1.000	.412 <sup>b</sup>	.508	.155	4.523	1.515	.980	.942
(2) Attitude toward the airline	.642 <sup>a</sup>	1.000	.377	.138	4.527	1.565	.973	.900
(3) Employee commitment	.713	.614	1.000	.166	4.228	1.635	.946	.854
(4) Employee career turnover intention	-.394	-.372	-.445	1.000	3.795	1.773	.898	.750

Note. Goodness-of-fit statistics for the measurement model:  $\chi^2 = 139.433$ ,  $df = 107$ ,  $p < .001$ ,  $\chi^2/df = 2.363$ , RMSEA = .064, CFI = .986, IFI = .986, TLI = .981.

<sup>a</sup> Between-construct correlations are below the diagonal.

<sup>b</sup> Between-construct correlations (squared) are above the diagonal.

**3.2. Data collection procedure and sample characteristics**

A survey method was used to collect the data. The surveyors created an online survey questionnaire link by utilizing their school’s Web-based survey system. This approach helped the surveyors efficiently reach airline workers in a pandemic world. A second pre-test was conducted with 10 airline workers. They accessed the survey link, examined the questionnaire, and completed it. Based on their constructive feedback, a slight modification was made to improve the quality of the questionnaires. The finalized survey was sent to airline workers in Asian countries. Practitioners in the airline sector comprising general managers and cabin managers requested the potential respondents (airline workers) to participate in the survey. The survey link was then sent to the participants through e-mail/mobile devices. Through this process, the surveyors obtained 330 complete useable responses.

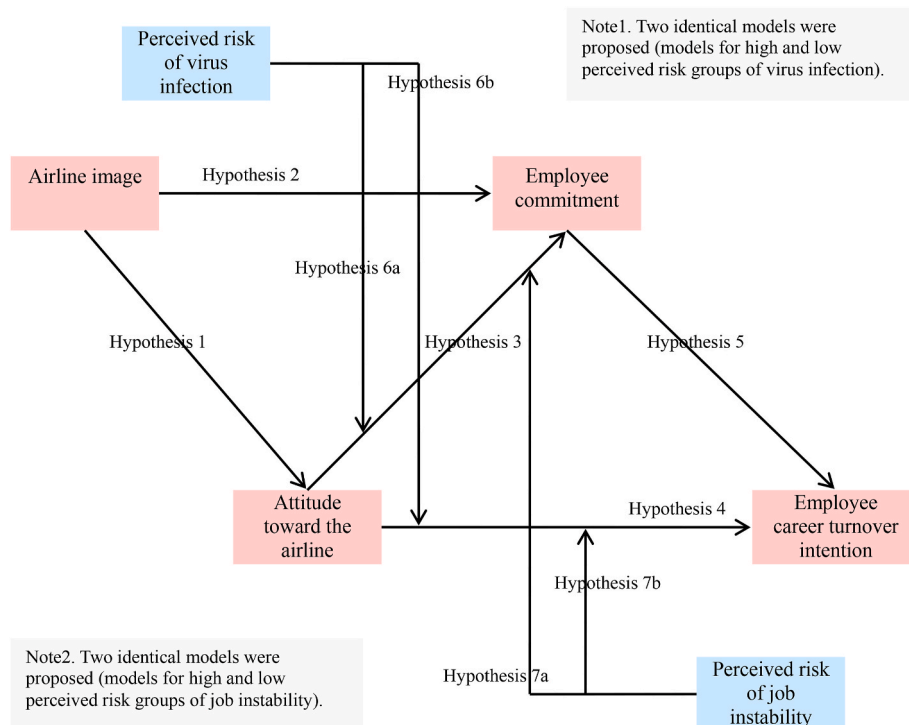
Among 330 respondents, 31.5% were male workers, whereas 67.9% were female workers. In terms of age, about 39.7% reported that their age is 40 years old or older, followed by between 30 and 39 years old (34.8%) and 29 years old or less (25.5%). Most participants were highly educated. About 83.8% reported that they are either two-year/four-year college graduates, followed by graduate-degree holders (11.8%) and high school graduates or less (4.5%). Regarding the participants’ position level, approximately 31.2% were entry-level workers. About 34.5% were supervisory level workers. In addition, 34.2% were managerial level workers. In terms of airline type, about 75.2% were full-service

carrier workers whereas 24.8% were low-cost carrier workers.

**4. Results**

**4.1. Measurement model quality testing**

A confirmatory factor analysis (CFA) was implemented based on maximum likelihood (ML) estimation to test the quality of researcher-generated conceptual model. AMOS and SPSS were used as analytic tools. A maximum likelihood method was used to create the measurement model. The result of the CFA revealed that the measurement model satisfactorily fit to the data ( $\chi^2 = 139.433$ ,  $df = 107$ ,  $p < .001$ ,  $\chi^2/df = 2.363$ , RMSEA = .064, CFI = .986, IFI = .986, TLI = .981). All factor loading values were significant ( $p < .01$ ). A composite reliability (CR) was next examined. The results showed that all reliability values are greater than the suggested level of 0.70. Thus, internal consistency of the within-construct measures was demonstrated (Hair et al., 2010). Construct validity was then assessed. Average variance extracted (AVE) values were calculated by using Hair et al.’s (2010) formula. The values were all above the suggested level of 0.50, which indicates that convergent validity of the constructs was evident. Next, these AVE values were compared with correlations between constructs. It was found that squared between-construct correlations were lower than the AVE values, which support the discriminant validity of the constructs. Table 1 shows the details of the measurement model evaluation results.



**Fig. 1.** The proposed conceptual framework.

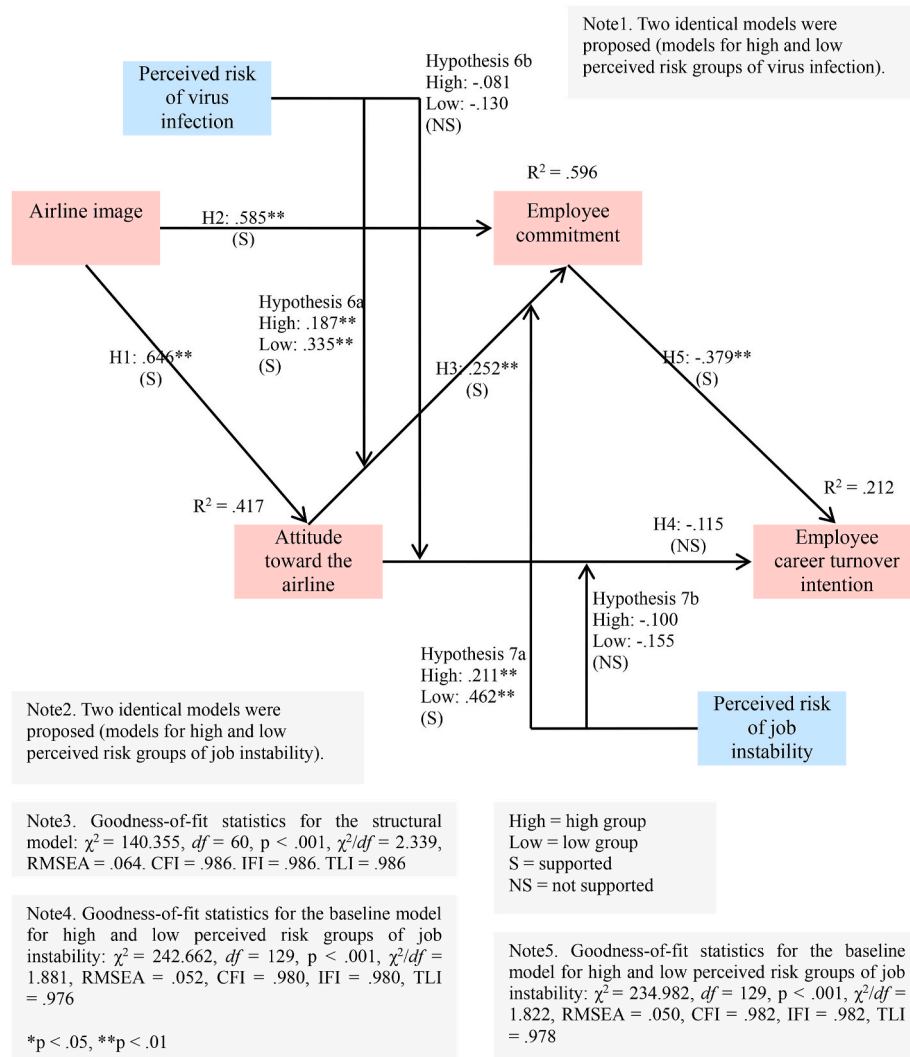


Fig. 2. Structural model and invariance model results.

#### 4.2. Structural model relationship testing

Next, a covariance-based structural equation modeling (CB-SEM) was conducted based on ML estimation (Fig. 1). The generated model satisfactorily fit the data ( $\chi^2 = 140.355$ ,  $df = 60$ ,  $p < .001$ ,  $\chi^2/df = 2.339$ , RMSEA = .064, CFI = .986, IFI = .986, TLI = .986). This model had a strong level of the prediction ability for employee commitment and career turnover intention. Specifically, the predictors accounted for 59.6% by employee commitment and 21.2% by employee career turnover intention. The details are shown in Fig. 2 and Table 2.

The proposed influence of airline image was assessed. The SEM result revealed that airline image had a significant impact on attitude toward the airline ( $\beta = .646$ ,  $p < .01$ ) and employee commitment ( $\beta = .585$ ,  $p < .01$ ), which supported Hypotheses 1 and 2. Airline image explained 41.7% of the variance in attitude toward the airline. The hypothesized influence of attitude toward the airline was evaluated. As expected, attitude significantly influenced employee commitment ( $\beta = .252$ ,  $p < .01$ ). Therefore, Hypothesis 3 was supported. However, Hypothesis 4 was not supported as attitude did not significantly affect employee career turnover intention ( $\beta = -.115$ ,  $p > .05$ ). The proposed effect of employee commitment on employee career turnover intention was proved to significant ( $\beta = -.379$ ,  $p < .01$ ). Thus, Hypothesis 5 was supported.

The indirect effect of study variables was examined. The results showed that airline image included a significant indirect effect on

commitment ( $\beta = .163$ ,  $p < .01$ ) and turnover intention ( $\beta = -.358$ ,  $p < .01$ ), which implies that attitude toward the airline and employee commitment have an important mediating role within the proposed conceptual model. Subsequently, the total influence of research constructs was examined. The SEM result revealed that commitment had the strongest impact on employee career turnover intention ( $\beta = -.379$ ,  $p < .01$ ), followed by airline image ( $\beta = -.358$ ,  $p < .01$ ) and attitude toward the airline ( $\beta = -.210$ ,  $p < .01$ ).

#### 4.3. Metric invariance test (perceived risk of virus infection)

An invariance test was performed to assess the proposed moderating impact of the perceived risk of virus infection. The airline workers were split in to high and low groups by K-means cluster analysis. The high group includes 193 respondents, whereas the low group includes 137 respondents. The baseline model, including these groups, was generated. The model contained an adequate fit to the data ( $\chi^2 = 242.662$ ,  $df = 129$ ,  $p < .001$ ,  $\chi^2/df = 1.881$ , RMSEA = .052, CFI = .980, IFI = .980, TLI = .976). Next, a chi-square test was implemented to compare the baseline model to the nested model. As shown in Table 3 and Fig. 2, our invariance test revealed that the direction from attitude toward the airline to employee commitment was significantly different between high and low groups of perceived virus infection risk ( $\Delta\chi^2 [1] = 3.984$ ,  $p < .05$ ). However, the path from attitude toward the airline to employee career turnover intention was not significantly different across groups

**Table 2**  
Structural model results and hypotheses testing (n = 330).

Hypothesized paths		Standardized estimates	t-values
H1	Airline image → Attitude toward the airline	.646**	13.707
H2	Airline image → Employee commitment	.585**	11.065
H3	Attitude toward the airline → Employee commitment	.252**	4.914
H4	Attitude toward the airline → Employee career turnover intention	-.115	-1.737
H5	Employee commitment → Employee career turnover intention	-.379**	-5.329
Total variance explained	Indirect impact on employee career turnover intention	Total impact on employee career turnover intention	
R <sup>2</sup> for employee career turnover intention = .212	β attitude – commitment – turnover intention = -.096	β airline image = -.358**	
R <sup>2</sup> for employee commitment = .596	β airline image – attitude – commitment – turnover intention = -.358**	β attitude = -.210**	
R <sup>2</sup> for attitude toward the behavior = .417	β airline image – attitude – commitment = .163**	β commitment = -.379**	

Note1. Goodness-of-fit statistics for the structural model:  $\chi^2 = 140.355$ ,  $df = 60$ ,  $p < .001$ ,  $\chi^2/df = 2.339$ , RMSEA = .064, CFI = .986, IFI = .986, TLI = .986. \* $p < .05$ , \*\* $p < .01$ .

( $\Delta\chi^2 [1] = .138$ ,  $p > .05$ ). Thus, while Hypothesis 6a was supported, Hypothesis 6b was not supported.

**4.4. Metric invariance test (perceived risk of job instability)**

A second metric invariance test was conducted to test the proposed moderating impact of the perceived risk of job instability. The airline workers were divided into high group (n = 240) and low group (n = 90) by the K-means cluster. The baseline model encompasses both high and low groups. The baseline model satisfactory fit the data ( $\chi^2 = 234.982$ ,  $df = 129$ ,  $p < .001$ ,  $\chi^2/df = 1.822$ , RMSEA = .050, CFI = .982, IFI = .982, TLI = .978). The model was then compared to nested models. The details

**Table 3**  
Baseline model and invariance model testing (perceived risk of virus infection).

Paths	High perceived risk group of virus infection (n = 193)		Low perceived risk group of virus infection (n = 137)		Baseline Model (Freely Estimated)	Nested Model (Constrained to be Equal)
	β	t-value	β	t-value		
Attitude → Employee commitment	.187**	2.738**	.335**	4.413**	$\chi^2 (129) = 242.662$	$\chi^2 (130) = 246.646^a$ $\chi^2 (130) = 242.800^b$
Attitude → Career turnover intention	-.081	-.959	-.130	-1.249		
Chi-square difference test:						
<sup>a</sup> $\Delta\chi^2 (1) = 3.984$ , $p < .05$ (H6a – Supported)			Goodness-of-fit statistics for the baseline model: $\chi^2 = 242.662$ , $df = 129$ , $p < .001$ , $\chi^2/df = 1.881$ , RMSEA = .052, CFI = .980, IFI = .980, TLI = .976			
<sup>b</sup> $\Delta\chi^2 (1) = .138$ , $p > .05$ (H6b – Not supported)			* $p < .05$ , ** $p < .01$			

**Table 4**  
Baseline model and invariance model testing (perceived risk of job instability).

Paths	High perceived risk group of job instability (n = 240)		Low perceived risk group of job instability (n = 90)		Baseline Model (Freely Estimated)	Nested Model (Constrained to be Equal)
	β	t-value	β	t-value		
Attitude → Employee commitment	.211**	3.718	.462**	3.758	$\chi^2 (129) = 234.982$	$\chi^2 (130) = 239.758^a$ $\chi^2 (130) = 235.170^b$
Attitude → Career turnover intention	-.100	-1.328	-.155	-1.077		
Chi-square difference test:						
<sup>a</sup> $\Delta\chi^2 (1) = 4.776$ , $p < .05$ (H7a – Supported)			Goodness-of-fit statistics for the baseline model: $\chi^2 = 234.982$ , $df = 129$ , $p < .001$ , $\chi^2/df = 1.822$ , RMSEA = .050, CFI = .982, IFI = .982, TLI = .978			
<sup>b</sup> $\Delta\chi^2 (1) = .188$ , $p > .05$ (H7b – Not supported)			* $p < .05$ , ** $p < .01$			

of the invariance test and chi-square test are shown in Table 4 and Fig. 2. The invariance test result indicated that the linkage between attitude toward the airline and employee commitment differed significantly toward high and low job instability groups ( $\Delta\chi^2 [1] = 4.776$ ,  $p < .05$ ). Yet, the linkage from attitude toward the airline to employee career turnover intention did not differ significantly between high and low job instability groups ( $\Delta\chi^2 [1] = .188$ ,  $p > .05$ ). Accordingly, Hypothesis 7a was supported whereas Hypothesis 7b was not supported.

**5. Discussion**

The change of the airlines and their businesses is inevitable during and after the pandemic era. Airline employees can be in the midst of the change. The present research was about unearthing the process of generating airline employees' career turnover intention. On top of that, this study successfully made a theoretical contribution to the extant model of turnover intention in the organizational behavior context. This study efficiently broadened and deepened the turnover intention framework by taking into account such vital concepts of airline image, attitude toward the airline, employee commitment, perceived virus infection risk, and perceived job instability risk in the pandemic era. This research's approach provides theoretically meaningful insight into research on airline employees' avoidance decision-making process toward the airline sector. Given the COVID-19 crisis and its influence throughout the world, the airline business faces a severe crisis than ever. Involving the direct, indirect, mediating, and moderating influence of study variables, the present research built a valuable guiding framework that helps airline entrepreneurs effectively reduce/manage employee avoidance responses and behaviors in a pandemic/post-pandemic world.

**5.1. Theoretical implications**

This study provides significant theoretical contributions to the scope of our thinking in the hospitality and tourism discipline. First, our examination of the comparative importance of research constructs demonstrated that commitment better contributes to decreasing employee career turnover as compared to other study variables. In

addition, our investigation evidenced that airline image has a comparative level of criticality in reducing employee turnover intention. This finding confirmed our premise regarding the necessity of the incorporation of conative and cognitive processes into the proposed theoretical framework. The present research successfully added the critical dimensions to the formation of turnover intention, which was not sufficiently explored in the extant airline employee behavior literature. Taking this into account, an effective way of minimizing employee turnover can be dealing with employee commitment and airline/employer image.

Second, the difference in the relationship between attitude toward the behavior and employee commitment across high and low groups of perceived virus infection risk was successfully uncovered. The association strength for the link from attitude to commitment becomes weaker when workers perceive high virus infection risk ( $\beta = .187, p < .01$ ) as compared to when they perceive low risk ( $\beta = .335, p < .01$ ). This result means that virus infection risk among airline workers weakens the effect of their attitude on commitment. Our finding evidenced that workers' attitude and its role have been changed while they are experiencing the COVID-19 pandemic as workers' virus risk perception arisen from the pandemic time significantly moderates the association between attitude and its proximal outcome variable such as commitment. Theoretically, our empirical evidence informs researchers that the possible effect of the virus infection risk perceived by workers should be accounted for when building a robust theorization of the attitude and commitment relation and of the influence of this association on workers' behaviors.

Third, the disparity on the association between attitude and employee commitment between high and low groups of perceived job instability was uncovered. The relationship strength for the linkage from attitude to commitment is weaker in the high job instability group ( $\beta = .211, p < .01$ ) than in the low risk ( $\beta = .462, p < .01$ ). This result implies that job instability risk among airline employees reduces the impact of their attitude on commitment to the company. Our result evidenced that airline employees' attitude and its function have been adjusted while they are experiencing the pandemic crisis since their job insecurity risk perception derived from the COVID-19 considerably moderates the relation between attitude and its direct outcome construct. From the theoretical point of view, our findings help airline academics recognize that the possible impact of the job instability risk perceived by workers need to be accounted for when developing a strong theorization of the attitude and commitment association and of the effect of this relationship on airline workers' behaviors.

Lastly, our investigation of the indirect associations among study constructs evidenced that airline image includes a critical indirect influence on employee career turnover intention. This means that attitude toward the behavior and employee commitment includes mediated the effect of airline image on turnover intention within the proposed model. Theoretically, recognizing this important mediating nature of attitude and commitment, airline researchers should be active in exploiting these concepts when developing a conceptual framework for airline employee avoidance decision/behavior.

### 5.2. Practical implications

This study also provides practical implications that suggest managerial strategies in the airline industry. In a practical manner, for taking a full advantage of airline image for the reduction of employee turnover, it is fundamental for airline entrepreneurs to manage the mediation factors suggested in this study in an efficient way. Considering the criticality of airline image, a variety of efforts need to be made toward uplifting employees' favorable attitude and commitment to their organization.

This study also offers critical information that escalating workers' perception/belief about job stability is a fundamental method to efficiently utilize attitude in building/fortifying employees' strong emotional bond to the firm. For airline entrepreneurs, enhancing

workers' stability perception of their job and reducing their probable concern about job loss could be hence more important than ever in a pandemic world. In particular, given that much is still not known in terms of workers' behaviors in a pandemic time, the procedure of taking the potential effect of job instability risk perception into account can be a vital requisite to obtain a better comprehension of workers' decision-making process and behaviors for the airline firm.

Lastly, considering that much is still uncertain about workers' responses/behaviors in a pandemic world, the process of taking the possible impact of virus infection risk perception into account is an essential step to gain a deeper understanding of airline workers' approach/avoidance decision formation and behaviors for the company. Our result provided vital insights that minimizing workers' perception regarding virus infection risk is a great way to exploit workers' attitude in developing a strong level of commitment to the company. Setting out and implementing the adequate personal protective measures as a fundamental approach of reducing the virus infection risk among employees is therefore of important for effective and safe airline management.

### 5.3. Limitations and suggestions for future study

Like many other studies, this study also contained several limitations. First, our theoretical framework for employee turnover intention was built in the airline industry. That is, employing our proposed framework and applying it into other sectors of organization behaviors should be done with caution. For future research, an amendment/improvement of our theoretical model is necessary prior to its application in other sectors. Second, the present research was carried out in the midst of the COVID-19 pandemic. Therefore, workers' perceptions, tendency, and responses during the pandemic are soundly reflected on the result of this study. However, such perceptions, tendency, and responses can be differed in a post-pandemic era where the COVID-19 is completely ceased or under control. Future research should replicate/test our research framework in a post-pandemic world, and uncover the possible difference.

## 6. Conclusion

It is irrefutable that airline workers are more seriously exposed to physical safety and job insecurity issues than other business sectors in a pandemic world. Many competent workers are therefore active in searching for more safe and stable job opportunities in other sectors. Taking this into account, lessening skilled workers' career turnover and increasing their approach behaviors are essential requisites for the successful business of airlines in the post-pandemic era. The present study was an original research that utilized airline image, attitude toward the airline, and employee commitment as major constituents of the reduction process of career turnover and that explored how perceived virus infection risk and perceived job instability risk affected turnover decision formation in the airline sector. Employees and their approach behaviors are undoubtedly key elements of airline business success. The present research evidenced the effectiveness of our conceptual framework. The intricate theoretical mechanism among airline image, attitude toward the airline, employee commitment, perceived virus infection risk, and perceived job instability risk uncovered in this research is of utmost criticality both in theory and practice. The theoretical framework built in this study is fundamental for clear understanding of airline employees' responses and behaviors in the COVID-19 era.

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