

Assessment of Work-Related Stress in the Thai Aviation Industry

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Abstract

The recent years have posed unprecedented challenges for the aviation industry. Initially, it encountered a significant decline in demand together with harsh global travel restrictions imposed by governments. Subsequently, as the demand for air travel started to rapidly resurge, the industry grappled with staffing shortages. These difficulties have unquestionably resulted in challenging conditions for both the organizations and the employees within the industry and reports have indicated that the well-being of the industry's workforce has turned for the worse. This study aimed to assess the well-being of employees in the Thai aviation industry, focusing on work-related stress. Additionally, the potential impact of various demographic characteristics was explored. A quantitative approach was used where an online questionnaire was distributed to employees in the Thai aviation industry and a total of 413 valid responses were received. The findings indicated that the most stress-inducing aspects of their work were to do with being under pressure at work, being pressured to work fast, having high workloads, not being consulted regarding organizational changes, and their job getting to them more than it should. Additionally, the findings indicated no significant differences among demographic profiles of employees, a result contrary to some prior studies. This study offers new and insightful information concerning the industry's workforce, offering actionable solutions for managers and policymakers to mitigate work-related stress and improve employee well-being at workplaces to continue their recovery efforts for a successful future in the aviation sector.

Keywords: work-related stress; aviation; employees; covid-19

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Introduction

As the whole world was shaken by the crisis caused by the COVID-19 pandemic, numerous industries were struggling to tackle the effects of it. Among the most heavily affected has been the global aviation industry. As of now, there is a consistent trend toward improvement and the demand for air travel has been steadily rising globally. In fact, following a significant historical decline in 2020 and 2021, air travel demand has rebounded to approximately 75% of its pre-pandemic levels (IATA, 2023). Nevertheless, the severity of this crisis has left a long-lasting impact, affecting both organizations and the employees of the industry. The swift and positive upswing in worldwide air travel demand has presented the industry with another challenge concerning its workforce. In multiple parts of the world, the industry has been grappling with shortages of staff to meet the rapid increase in demand. Consequently, this has been exerting additional pressure on employees (ACI, 2022).

Moreover, the aviation industry has been described as a stressful work environment even during the most stable times. According to Dursun (2021), due to the nature of the work, employees may experience increased physical and mental strain. Factors such as intense competition and heightened expectations regarding employee performance and productivity can contribute to this strain. Additionally, the industry's time-sensitive nature and relatively high workload add further pressure, leading to increased levels of work-related stress. ACI (2022) has also recently encouraged the monitoring and enhancement of employee well-being within the aviation industry. They particularly recommended focusing on the mental health of the already strained workforce, recognizing that the level of work-related stress may have been increased among employees. Moreover, there is a lack of prior research on this subject, particularly focusing on employees in the aviation industry during the post-COVID-19 recovery phase. Thus, exploring this topic is crucial to assist organizations in optimizing their recovery efforts.

As previously noted, the COVID-19 crisis has proven to be an exceptionally challenging period, particularly for the aviation industry. In fact, it stands out as the most severe crisis the industry has encountered (Laovoravit et al., 2021; Sobieralski, 2020; Nhamo, Dube & Chikodzi, 2020; ACI & IATA, 2020; Dunn, 2020; Han et al., 2021). Given the unprecedented conditions affecting both organizations and employees within the industry, it is important to examine the aftermath of the crisis by assessing the well-being of the employees during this crucial recovery

period by evaluating their work-related stress. This knowledge can aid in understanding employees better and finding actionable solutions within organizations to improve the well-being of their workforce. This involves understanding the factors behind work-related stress and implementing workplace policies that contribute to stress reduction. Hence, this study was carried out to determine the extent of work-related stress among employees currently working in the aviation industry in Thailand as the industry is recovering from the COVID-19 crisis.

Additionally, the possible impact of employee demographic characteristics was analyzed. The findings are hoped to provide valuable insights for organizations in the aviation industry, aiding in a deeper understanding of their employees and facilitating the identification of strategies to improve their well-being at work. Therefore, the objectives of this study were 1) to Assess the extent of work-related stress experienced by employees in the aviation industry in Thailand, and 2) to Investigate the potential impact of employee demographic characteristics on their work-related stress.

Literature review

The aviation industry and Covid-19

Aviation employee well-being at work is an understudied but significant concern. Even during normal times, the work environment for aviation industry employees is characterized by instability, strict schedules, and shift work together with elevated levels of work-related stress (Chen, 2006). Similarly, Dursun, (2021) noted that the work environment in this industry can be stressful for employees. Some of the factors contributing to this include a high level of competition, shift work, irregular working hours, high expectations from both passengers and supervisors, having to work during holidays and a high workload. In addition, given the aviation industry's reputation for its rapid and time-critical nature, which doesn't allow for slowdowns, coupled with a demand for a precise and punctual work culture emphasizing both safety and cost considerations, employees are at the receiving end of this burden, potentially leading to increased stress.

Even prior to the COVID-19 crisis, companies within the industry have been implementing strategies aimed at boosting operational efficiency and reducing costs, all while maintaining a high level of service and competitiveness (Cho, Choi & Lee, 2013). Such strategies include salary reductions, increased workloads, the necessity for multitasking, as well as layoffs and outsourcing.

These strategies have been further adapted to navigate the challenges posed by the COVID-19 crisis. The application of these measures may impose a considerable burden on employees, potentially leading to a decline in their well-being and an increase in their levels of stress as their working conditions worsen. In addition, the reduced number of flights and fluctuations in demand resulting from the uncertainty of the COVID-19 crisis have led to significant impacts on employees in this industry. Some of these include job losses, mandatory unpaid leave, and an overall reduction in their direct income (Le, Dao & Doan, 2021). In terms of job losses, before COVID-19, the global aviation industry together with its supporting sectors employed 65.5 million workers. Of those workers, more than 25 million jobs have been at risk during the crisis (ACI & IATA, 2020). Nhamo et al., (2020) also reported considerable uncertainty for the employees, as organizations in the industry had to initiate layoffs, reduce working hours, enforce salary cuts, and suspend employees. As a result of the uncertainty of work and the drastic changes made within the organizations, the workforce has been experiencing additional stress at their jobs.

Work-related stress

Work-related stress can arise from various sources, including role conflict, issues with supervisors or managers, excessive workload, unclear job descriptions, uncertainty regarding career advancement, and bias based on personal characteristics (DeFrank & Ivancevich, 1998). McShane & Von Glinow (2005) also specified various work conditions that have been identified to increase work-related stress and these include excessive workload, job insecurity, interpersonal conflict, and role-related factors such as role conflict and ambiguity. Further workplace stressors include task control, which increases with more complex tasks and higher responsibility of employees, referring to different levels of job positions. Circumstances related to the organizational environment, such as downsizing, can also result in heightened stress for employees (McShane & Von Glinow (2005). Furthermore, insufficient time spent with family due to work being inflexible or constantly changing shift schedules can cause increased stress levels, particularly with employees who are married. In addition, a prior study identified the most significant workplace stressors as an increase in workloads and an inadequate time to complete their job (Simoens, Scott & Sibbald, 2002).

Harshana (2018) pointed out that work-related stress can result for instance from cancellation of employee benefits and extensive layoffs, which have recently been timely as the organizations were forced to implement these strategies during the COVID-19 crisis. Similarly, Shin, Kim & Kim (2021) argued that organizational changes in the aviation industry, such as the

downsizing of departments can contribute to increased work-related stress together with a reduction in work performance among the employees. Likewise, the productivity of employees in the aviation industry has been impacted by both work-related stress and the COVID-19 crisis, as revealed by a study conducted by Widodo et al., (2021). Several studies have observed that different job positions show variations in the level of stress experienced at work (Sun & Chiou 2011; Yim et al., 2017; Park & Min 2020); Yim et al., 2017). This can be seen for example between managers and entry-level positions. Sobieralski (2020) identified similar findings where employees working in entry-level positions such as passenger handling have been most affected by the challenges presented by the crisis, whereas employees in management positions have experienced a comparatively lesser impact.

In addition, Laovoravit et al., (2021) identified the levels of aviation employees' work-related stress to have increased due to the unpredictability that COVID-19 brought to their work. Moreover, their study revealed that found that demographic characteristics, including gender and marital status influenced the levels of stress among aviation employees. Kim et al., (2021) also had similar findings, their study reported a considerable increase in job-related stressors and their consequences on aviation employees and that the amount of perceived stress may fluctuate depending on the employee demographic characteristics. Comparable findings were also noted by Görlich & Stadelmann, (2020). The authors identified that for instance job position and gender can show varying results in work-related stress in aviation employees. Further, it has been determined that significant sources of work-related stress are for instance the physical working environment, work overload, and pressure to complete tasks within tight deadlines (Said & El-Shafei, 2020). Kimbu et al., (2023) identified that whether employees are single or married may also be a significant indicator of different levels of perceived stress and well-being at work. Prior studies have discussed how demographic characteristics such as gender play a role in influencing how employees perceive and handle stress. More specifically, women have demonstrated greater coping capabilities in dealing with work-related stress compared to men (Simoens, Scott & Sibbald, 2002; McShane & Von Glinow, 2005). Pi, Chiu & Lin (2016) have argued that significant rises in the volume of passengers passing through airports can be correlated with increased work-related stress and decreased performance among aviation employees. Currently, this may be a timely concern as the number of passengers has surged while the number of staff may not be sufficient. The findings of Kurniawaty et al., (2019) indicated that increased levels of work-related stress in employees were attributed to factors such as limited career development opportunities,

workplace conflicts, and heavy workloads. An earlier study carried out among aviation employees similarly also discovered that overload, ambiguity, and conflict can be significant sources of work-related stress (Cho, Choi & Lee, 2013).

Methodology

A quantitative approach was utilized, and the data collection was conducted with an online questionnaire which was distributed to employees currently working in the Thai aviation industry by using convenience sampling. The items measuring work-related stress were selected to correspond to the literature review and were adapted from prior studies and the instrument validity was evaluated in the form of an IOC. In addition, IRB approval was received and a small pilot test of 31 participants was conducted. As a result of the pilot test, the work-related stress scale reached a Cronbach's Alpha value of .890. Pallant (2020) suggests that Cronbach's Alpha values exceeding .7 are acceptable, with values surpassing .8 being preferable. Thus, the instrument was deemed reliable for the data collection. The period of data collection was during May and June 2023. Appropriate and relevant organizations operating at Thai airports were contacted to take part in the study, and the data was gathered from a total of 413 employees.

Results

The final number of respondents for this study was 413. For the respondents' demographic characteristics, 155 (37.5%) were male, and 258 (62.5%) were female. The majority of them were single in terms of their marital status with a total of 335 (81.1%) respondents, while 78 (18.9%) were married. 309 (74.8%) were working in entry-level/operational job positions, 64 (15.5%) were supervisors, and 40 (9.7%) were managers.

The findings indicated varying results on the different attributes. The most stress-inducing aspects were as follows, "I'm under pressure at work" ($M = 3.50$, $SD = 1.09$) which had the highest mean score on the scale. The second most stress-producing attributes were "I am given a lot of work to do" ($M = 3.28$, $SD = 0.95$) and "I am pressured to work fast" ($M = 3.28$, $SD = 1.11$). Similarly, the third highest scoring attribute was "I feel like I have a lot of work demand" ($M = 3.24$, $SD = 0.98$). These most stress-inducing aspects of employees' jobs imply that employees are allocated excessive workloads, which is a common source of work-related stress and consequently it makes them feel pressured to perform their jobs. The fourth highest stress-producing aspect was found to be "Employees are rarely consulted regarding planned changes"

($M = 3.20$, $SD = 1.14$), which indicates that organizational changes where employees are not consulted also produce stress among employees. Lastly, the fifth highest stress-generating aspect of employees' jobs was found to be "My job gets to me more than it should" ($M = 3.13$, $SD = 1.04$). This also implies that employees are facing stress at their work.

Table 1: Employee work-related stress

Work-related stress	Mean	SD
My supervisor doesn't energize me at work	2.80	1.17
I have unrealistic deadlines	2.48	1.01
I'm under pressure at work	3.50	1.09
My job gets to me more than it should	3.13	1.04
Sometimes when I think about my job I get a tight feeling in my chest	3.03	1.03
I have too much work to do and too little time to do it in	3.05	1.00
I feel like I never have a day off	2.96	1.21
I currently don't have a good balance between the time I spend at work and the time I have available for non-work activities	3.03	1.08
Overall, I believe that my work and non-work life are not well balanced	3.03	1.10
I feel like I have a lot of work demand	3.24	0.98
I am given a lot of work to do	3.28	0.95
My task at work is not clear to me	2.65	1.11
My workload is excessive	3.06	1.00
I am pressured to work fast	3.28	1.11
Whenever changes are introduced, it is not clear to me how these changes will affect my work	3.04	0.99
Employees are rarely consulted regarding planned changes	3.20	1.14
Overall work-related stress	3.05	0.72

A set of independent samples t-tests and one-way ANOVAs were performed to test whether employee demographic characteristics have an impact on work-related stress. Firstly, the potential impact of employee gender on work-related stress was examined. The results revealed no statistically significant differences between male ($M = 3.02$, $SD = 0.78$) and female ($M = 3.06$, $SD = 0.69$), $t(411) = 0.51$, $p = .611$ workers at the 0.05 significance level. Moreover, after conducting

an independent samples t-test for all the individual items on the scale, no significant differences were found. The results were similar with employee marital status. The independent samples t-test revealed a non-significant result at the 0.05 significance level between single employees ($M = 3.05$, $SD = 0.73$) and married employees ($M = 3.04$, $SD = 0.69$), $t(411) = 0.14$, $p = .889$. Similarly, none of the individual items showed any noteworthy difference between these two groups. Lastly, a one-way ANOVA was performed to compare work-related stress among employees across three different job positions. The outcome indicated no significant difference at the 0.05 significance level ($F_{2,410} = 0.12$, $p = .884$).

Table 2: Overall work-related stress between employee demographic characteristics

Independent samples t-test		Mean	SD	df	t	Sig. (2-tailed)	
Gender	Male	3.02	0.78	411	0.51	.611	
	Female	3.06	0.69				
Independent samples t-test		Mean	SD	df	t	Sig. (2-tailed)	
Marital status	Single	3.05	0.73	411	0.14	.889	
	Married	3.04	0.69				
One-way ANOVA			Test of Homogeneity of Variances			ANOVA	
		Mean	SD	Levene's Statistic	Sig.	F	Sig.
Job position	Entry-level staff	3.05	0.73	1.44	.237	0.12	.884
	Supervisor	3.01	0.64				
	Manager	3.06	0.84				

Conclusion

The purpose of this research was to assess employee work-related stress among aviation employees in Thailand as the industry recovers from its most severe crisis in history. In addition, the potential effects of demographic characteristics were examined. The findings indicated that among the most stress-inducing aspects of their jobs were to do with being under pressure at work, being pressured to work fast, and having high workloads. Hence, the workload assigned to employees and the time provided to complete their tasks are noteworthy aspects worthy of consideration as they can put additional pressure on the employees. In addition to these attributes, employees responded with a relatively high mean score for not being consulted

regarding organizational changes, another aspect deserving attention among the organizations as this may also increase the level of work-related stress among their workforce. Lastly, employees reported that their job gets to them more than it should, which further indicates that the employees are experiencing stress as a result of their jobs. Organizations should recognize the aforementioned factors to mitigate the stress levels of their staff to improve their well-being at work and to continue their recovery efforts for a successful future in the aviation sector. Moreover, this research investigated how various demographic characteristics of employees could influence work-related stress. However, the findings revealed no statistically significant differences between any of the characteristics, a result contrary to some prior studies. Lastly, as there is a lack of studies related to aviation employee well-being, particularly in the context of the recovery phase from COVID-19, this study offers new and insightful information concerning the industry's workforce, offering actionable solutions for managers and policymakers to mitigate work-related stress at workplaces.

Discussion

With the entire world significantly impacted by the prolonged COVID-19 crisis, many industries and their workforce found themselves grappling with its effects. Among the most severely affected sectors has been the global aviation industry, experiencing what has been deemed the worst crisis in its history (Sobieralski, 2020; Laovoravit et al., 2021; Nhamo, Dube & Chikodzi, 2020). Despite the promising path for recovery, employees have found themselves in a challenging position. Initially, organizations had to respond in various ways by scaling down operations and downsizing departments to navigate through the challenges of the years 2020 and 2021. Subsequently, the industry faced difficulties in coping with the sudden surge in demand and ensuring an adequate workforce (ACI, 2022).

Multiple studies have documented significant shifts in employee well-being and an increase in work-related stress within the industry (Laovoravit, et al., 2021; Kim et al., 2021). While the findings of this study revealed various job-related stressors impacting employee stress, the levels of work-related stress were not significantly high which suggests that the situation in the industry has started to normalize to some extent. Moreover, according to prior studies, the aviation industry can be a stressful work environment even under normal circumstances. The time-sensitive nature of the work, coupled with a relatively high workload, and ever-changing shift work can contribute to increased stress among employees (Dursun, 2021; Chen, 2006; Sun & Chiou,

2011; Cho et al, 2013). The results of this study indicated that employees were experiencing pressure to work quickly and noted high workloads, aligning with the arguments of Dursun (2021), and with earlier studies from DeFrank & Ivancevich (1998); McShane & Von Glinow (2005); Simoens, Scott & Sibbald (2002) who have noted work overload and having to work fast to be common sources of work-related stress. Further studies have also determined that circumstances involving organizational changes, such as downsizing, department consolidations, and layoffs may result in increased workloads and thus heightened work-related stress among employees (Harshana, 2018; Shin, Kim & Kim, 2021). Similar findings were identified in this study, as employees reported not being consulted regarding organizational changes, adding to their level of stress experienced at work.

In addition, the findings of prior studies have discussed the influence of various demographic characteristics on employee work-related stress. Characteristics such as gender, marital status, and job position have been found to contribute to various levels of stress at workplaces. The findings of this study, however, indicated no statistically significant differences based on the gender of the employees which was opposite for instance to the findings of Laovoravit et al., (2021); Simoens, Scott & Sibbald, (2002); McShane & Von Glinow, (2005) who found both men and women to experience varying levels of stress and cope with it differently. Similarly, whether employees are single or married indicated no significant differences in this study, which was contrary to the findings of Laovoravit et al., (2021); Kimbu et al., (2023); McShane & Von Glinow, (2005) who found employee marital status to influence the level of perceived stress at work. Lastly, different from the findings of Sobieralski (2020); Görlich & Stadelmann, (2020); Yim et al., (2017), the different job positions of employees in this study revealed no significant differences in their level of work-related stress.

Recognizing the factors causing stress at work would also help the organizations create initiatives aimed at mitigating work-related stress and supporting employees in handling stress in their work environment. This would be beneficial to the organizations, especially as work-related stress has also been found to impact employee productivity as observed by Widodo et al., (2021) as well as reduce work performance for instance (Shin, Kim & Kim 2021).

Implications

It would be advisable to investigate the most stress-inducing aspects revealed in this study and implement measures within organizations to alleviate employee work-related stress.

Managers and policymakers should take action on employee workloads, and the time given to perform their jobs. Especially in the context of an airport environment where safety and precision are essential, employees should not be burdened with excessive workloads while simultaneously pressured to complete tasks quickly. Otherwise, it may lead to increased stress among the workforce, or it could lead to errors or taking shortcuts to complete tasks which might cause significant danger to the safety of airport operations. More specifically, attention should be paid to employee workloads and to ensure that tasks are being distributed fairly among team members.

Together with taking into consideration the job-related stressors identified in this study, managers and policymakers should also regularly evaluate employee work-related stress through surveys, proactively interviewing and engaging with individual employees, or setting up focus groups. The feedback received from these could then be used to identify potential stressors and areas of improvement to effectively mitigate work-related stress. In addition, employees should be included in the planning of future organizational changes to reduce further stress resulting from changes that are made without input from the workforce. This could be combined with creating a healthy work environment where employees are encouraged to freely express their concerns and seek assistance when experiencing stressors.

Now as the industry is rapidly recovering and needs both its existing as well as additional future staff members, it would be a good time to consider these aspects as it could potentially increase the well-being of staff and attract new applicants to join, benefiting the industry for a successful recovery and a steady growth for the future. The results of this study also offer insightful information for academics on various employee demographic characteristics and their impact on work-related stress. particularly regarding the instrument items used in this study which can be used for future reference.

Future research

It would be interesting to see the results of a similar study conducted in a different country to observe how the results might contrast or align with those identified in this study. Alternatively, future studies could concentrate on a single airport, compare two different airports and their respective employees, or narrow down the scope to specific organizations in the industry unveiling potential differences in employee well-being. Studies on specific organizations could focus on a particular airline such as a full-service airline, a low-cost airline, or an organization offering ground

handling and passenger services at an airport. In addition, future studies could develop or adapt a model for testing the demographic characteristics with other variables. Moreover, additional demographic or job characteristics could also be tested to find differences in work-related stress experienced by employees. Furthermore, the most stress-producing aspects revealed in this study could be investigated by academics in other work settings and industries to gain a deeper understanding of these job-related factors and how they create stress experienced by employees.

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