

Stress of Employees Working in the Aviation Industry: A Study of Bangkok Airways Limited Ground Service Agents

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DOI: 10.29322/IJSRP.10.08.2020.p10454
<http://dx.doi.org/10.29322/IJSRP.10.08.2020.p10454>

Abstract- This study examined the relationship between sources of stress at work and Ground service agents' level of stress. Of the 150 Thai full-time Ground service agents based at Bangkok station who received the survey, 114 returned it for a 76% response rate. Stepwise regression analysis was used to determine the impact of Five Sources of Stress at work on the level of employees' stress level. The findings revealed that all aspects of five stress sources' dimensions including Job Characteristics; Role of employee participation; Progression of careers; Relationship in the workplace; Organizational structure and climate were positively correlated with the level of stress among Ground service agents. In the regression analysis, it was found that Role of employee participation and Relationship in the workplace were the factors that most significantly affected stress level at work. The influence of working factors on employees' stress level who work in aviation industry was discussed in light of these findings.

Index Terms- Stress at work, Aviation, Ground Service Agents, Thailand

I. INTRODUCTION

Aviation is a popular blueprint of contemporary tourism. Customer services are an integral part of the aviation industry for its efficiency. Aviation customer services functions as cabin crew, check-in traveler, provide support for people at the VIP lounge, help people in need of ticket information at the counters, they manage the flight control center, they are in charge of luggage and load control and many more (Duliba, Kauffman & Lucas, 2001). Aviation customer service employees work mainly at airports and airfields. Several studies show there is a linkage between the increase of stress and customer service employees in the aviation industry. The increase in stress levels among the crews has resulted in high staff turnover, poor performance on the job, and unsafe job practice (Peksatici, 2018). However, the level of detail that reveals why there is an increased level of stress among aviation customer services employees is not specific enough and should be the subject of future research

To bridge the gap and lapse of past research, the relationship or mediators that influenced occupational stress and work performance must be discussed (Jennifer, 2005). A quantitative review of twenty-eight thousand employees in two-hundred and fifteen different organizations in the U.S revealed

that stress at work could cause poor performance at work, it can also cause vital health issues and staff burnout (Akgemci, Demirsel & Kara, 2013). For this study, individuals considered as 'Ground Service Agent' are employees that work in the following units, reservation department, passenger service department, ticket service department, and customer service department. in. Individuals in all of the departments and units mentioned above play an essential role in effective running air transportation. The work pressure of these individuals poses a threat to their health, aviation safety, and company's efficiency. Several pieces of evidence show that the working environment of some professionals put their health at risk as a result of workplace stress and imbalance work-life.

The working conditions of Ground Service Agent covers the range of services and interactions from passenger involving with checking in at the airport to competing boarding (Yang & Tseng, 2010). They need to be aware of the safety or health hazard or risk to passengers as well as deal with unruly behaviours of passengers (Malaysia Airlines, 2009; Cathay Pacific Airways, 2010; China Airlines, 2010). Therefore, such working conditions may cause stress among the employees, which affects employee's health, reduce efficiency and safety of aviation and organizational performance (David, 2010). Cooper and Marshall's (1976) original model of work related stress included five sources of stress at work. These sources include (1) Intrinsic to the job; (2) role in the organisation; (3) career development; (4) relationships at work; and (5) organisational structure and climate.

The first purpose of the paper was to study the relationship between the five-source of stress at work and the level of the stress among Ground Service Agent. The second purpose was to further analyse the effect of the five-source of stress on the level of stress among employees.

II. LITERATURE REVIEW

The following section describes theoretical foundations in relation to stress for this study.

2.1 The Sources of Stress

Stress is the perception of pressure on an individual, but stress is never the source of demand for pressure. The brief summation of stress is derived from prior research conducted on stress. The cause of stress in the aviation industry can be categorized into physical and environmental stress (Tourigny, Baba & Wang, 2010). Physical stressors are internal conditions

or factors that affect people, while environmental stressors are external factors that affect people or cause stress. Internal factor has an effect on the body in the form of pains, sleeplessness, hunger, etc. while external factors are environmental factors that affect individuals such as heat, pollution, noise, overcrowding. The familiar environmental and physical stressors cabin crews are usually exposed to are warning horns, continuous radio communication noise, irregular temperature, vibration noise from engines, limited workspace, lighting, and air quality, (O'Flaherty, 2016).

The work involves the coordination of services and handling critical issues, which constitutes an increased level of stress. Apart from physical and environmental factors that cause stress in the aviation industry, there are other sources of stress. For instance, employees might have a conflict with the demand for excellent services or face pressure from top management wanting instant performance. An unpleasant situation may present itself when the employees try to satisfy management and bow to work pressure. Such may result in the transfer of pressure to customers and unable to communicate or serve them properly (Cheng-Hua & Hsin-Li, 2012; Yang & Tseng, 2010)

The amount of a stress a person experience at work can derive from the intensive role of employee participation, interpersonal conflicts at the workplace, work demands and their intrinsic nature, slow progression of careers as well as the fragmented nature of organizational structure and climate (Faragher et al., 2004). According to Cooper and Marshall's model of 1976, five causal factors of workplace stress are conceptualized. Johnson et al., (2005) have concluded the five sources including:

- (1) Intrinsic to the job, including factors such as poor physical working conditions, work overload or time pressures;
- (2) Role in the organisation, including role ambiguity and role conflict;
- (3) Career development, including lack of job security and under/over promotion;
- (4) Relationships at work, including poor relationships with your boss or colleagues, an extreme component of which is bullying in the workplace; and
- (5) Organisational structure and climate, including little involvement in decision-making and office politics

2.2 The Effect of Stress

The effect of stress on humans can either be negative or positive; the consequences can be psychological and physiological. Stress is usually perceived as an adaptation process. The absence of stress could result in the body being too relaxed and not active enough to cope with demanding situations. The nervous system is affected by stressful situations and aligns with the way the body deals with it. There is an increased discharge of epinephrine (a type of adrenaline) in the bloodstream. Such is a hormone responsible for several activities in the body, which are bodily responses, it improves the metabolic rate, stimulates heart actions, and increases the blood pressure. Adrenaline is a stimulant that is powerful in helping the body to respond to specific situation and cope with stressful situations. An excessive release of adrenaline may occur when an issue is too harsh or overwhelming. Excessive release of epinephrine results in over-stimulation and someone in that

position may not be able to cope with stressful situations. Such would result in I a panic which is typically at the extreme. Panic renders people useless in responding to a situation in a useful manner.

When excess epinephrine (adrenaline) is pumped into the bloodstream, the body will start to show visible signs of stress. The very first and necessary steps of managing stress are to recognize the signs the body exhibit due to stress (Muhammad, 2017). The common symptoms of stress are physiologically related, such as chest pains, high blood pressure, and increased pulse rate. Respiratory related symptoms of stress are dizziness, hyperventilation, and shortness of breath. Other random physiological symptoms of stress are headaches, muscular tension, lack of sleep (Ahmad & Zakaria, 2015). Psychological symptoms of stress are depression, guilt, low self-esteem, anger and loss of control.

Furthermore, the typical effects of stress in most situations includes: poor judgment, difficulty in focusing or concentrating on a task, mistakes, poor memory, sluggishness, low morale, cutting corners, hyperactivity, poor decision making, looking for easy way out while ignoring serious threats, avoiding responsibility, passing it to other people, procrastination and delay of action or plans, hasty action due to adrenaline and alertness level, and unwillingness to try new things. In the case of crewmember, high significant stress during a flight result in switching to unsafe or old practices and procedures, using informal phraseology during communication, switching to local language or dialect when not necessary, searching for items in an old location (Haung, Webb, Zourrdous & Acevedo, 2013).

III. METHODOLOGY AND METHODS

In this section, we describe the population and data collection techniques, the instrumentation, and the data analyses used.

3.1 Population and Data Collection

The population in this study was the 150 Ground Service agents based in Bangkok Station employed by Bangkok Airways Public Company Limited. All of Ground Service agents were sent a questionnaire online with a statement that completion of the questionnaire would constitute agreement of informed consent. There were 114 questionnaires returned.

The majority of faculty were female (86.0%). The average range of age was 31-40 years old (45.6%), with almost the same percent in the age below 30 years old group (44.7%). Most had Bachelor degree (91.2%). More than 7 years of working experience in this company were the most participants of this sample (48.2%). An average of working hours was 40-48 hours per week.

3.1 Instrumentation

The questionnaire contained three sections - Demographic information, Five Source of Stress at Work, and Stress Level. The language used in the questionnaire was Thai.

Five Sources of Stress at Work. This instrument was developed based on Cooper and Marshall's model (1976). There were 25 items with a five-point Likert-type scale. (1, "strongly disagree" to 5, "strongly agree"). The instrument included five dimensions, Job Characteristics; Role of employee participation;

Progression of careers; Relationship in the workplace; Organizational structure and climate. The overall reliability is 0.78.

Stress Level. This instrument was developed by Department of Mental Health Thailand. The participants were asked to assess their stress level within the last 3 months by giving frequency rating score (1, “never” to 5 = “always”). The total items were 10, with the overall reliability at 0.89.

3.2 Data Analysis and Results

Table 1 Means, Standard Deviations, and Correlation

Variables	Mean	S.D.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) Job Characteristics	3.02	.52	1						
(2) Role of employee participation	3.12	.76	.94**	1					
(3) Progression of careers	3.76	0.65	.91**	.89**	1				
(4) Relationship in the workplace	3.00	0.64	.90**	.89**	.88**	1			
(5) Organizational structure and climate	3.12	0.48	.82**	.83**	.80**	.85**	1		
(6) Overall Five Sources of Stress	3.04	0.35	.98**	.97**	.95**	.95**	.86**	1	
(7) Overall Stress Level	2.75	0.71	.65**	.69**	.49**	.81**	.69**	.47**	1

**. Correlation is significant at the 0.01 level (2-tailed).

3.2.2 Stepwise Multiple Regression

The use of stepwise regression analysis was conducted in which each stress force was entered as predictors and level of stress as an outcome variable. This aimed to determine which stress source was affected the level of stress among Ground Service Agent. The result as presented in Table 2 showing that “Role of employee participation” had a significant positive effect

3.2.1 Descriptive Statistics

In Table 1 presents the overall mean values and relationship of Five Sources of Stress at Work and Stress Level among Bangkok Airways Ground service agents. The results of the Pearson showed that each dimension of Five Sources of Stress was positively related to the level of stress. The category that correlated the highest was “Relationship in the workplace” ($r = 0.81$), The correlation between an aggregate Five Sources of Stress and Stress level was also positively related ($r = 0.47$).

on the level of stress and explained 48% of the variance in stress level, followed by “Relationship in the workplace”, adding 4% to the total explanation of variance of 51% in stress level. Moreover, standardized Beta weights were significant ($p < 0.01$) for the two retained variables as shown in Table 2.

Table 2 Impact of Leadership behaviors on organizational commitment

Model	R	R ²	Adjusted R ²	Std. Error	ΔR ²	Standardized Beta	Sig.
a	.69a	.48	.48	.27	.48	.69	.000*
b	.72b	.52	.51	.26	.04	.73	.000*

a. Predictors: Role of employee participation

b. Predictors: Relationship in the workplace

IV. DISCUSSION AND RECOMMENDATIONS

Conclusively, there is a strong relationship between the five causal factors of workplace stress and the stress levels of employees. The results of this study emphasised that the Role participation factor and Relationship in the workplace are the two influential factors affecting the stress level of the Ground Service Agents. The results can interpret that due to the required conditions of the task itself, the Ground Service Agents have to rely on human coordination. Also the employees may find themselves working with multiple supervisors and co-workers due to the duty limitation, therefore they get caught up in

situations where they do not know whose instructions to follow or what exactly is expected of them.

In addition, the result also supported Marshall and Cooper (1976) model that interpersonal relations among employees can trigger work stress. This could be the relationship that exists between employees and their supervisors, fellow worker or subordinates. Concerning the organizational structure/ climate factor, Cooper and Marshall (1976) indicate that things like management style, communication patterns and the extent of an employee's participation in decision-making can affect an employee's work performance.

Employees must have the knowledge to manage stress during operations time that may be different as the shift-work condition is required. The methods to deal with stress are reactive and proactive (Vindas et al., 2017). Actions taken beforehand to prevent stress are called proactive, which enables one to improve the reactive coping methods. For instance, using some emergency methods or having an excellent plan is preventive and makes it much easier to manage sudden occurrences. Generally, regular rehearsal and preparation make one to acquire mastery and self-belief, which could eminently reduce stress level. Specific stressors encountered in flight could be challenging to avoid (Radhika, 2018). The most suitable measure for coping with most stressors encountered in the aviation industry involves a combination of serious training before performing the task with corrective measures while in operations (Dural, & Genc, 2009).

Therefore, the organization should regularly train the cabin crew members in order to equip them with the knowledge of methods of managing some flight situations not always experienced and how to deal with tough situations to reduce stress that are not frequently encountered and the ability to apply these methods effectively, in order to ensure safety and minimize stress (Peksatici, 2018). Furthermore, the organization should help the Ground Service Agents to put plans in place before a flight to manage scenarios and threats should they occur and adequately inform them about the plans. This will enhance their alertness and ability to handle stressful situations. Again, the organization should ensure to make good use of all resources in their possession that will help the crew deal utilize information and bring down stress levels. The organization should also try to share tasks to reduce too much workload and advise the Ground Service Agents to do things beforehand when possible, to avoid rushing behaviors (Peksatici, 2018).

V. CONCLUSION

The intrinsic nature of work demands could translate into long working hours for employees due to heavy workloads that in turn creates a work-life conflict causing direct consequences on the well-being of employees and consequently high-stress levels. Sometimes the nature of work leaves employees without any sense of autonomy, meaning that they cannot make even the most basic decisions leaving them under so much pressure.

It is essential to find ways to deal with employee's stress before and after flights. Utilizing proactive and reactive measures is a great way to solve acute stress (Vindas et al., 2017). Proactive measures are otherwise known as preventive and are better than having to cope reactively. It would be better to simulate emergencies beforehand than dealing with the situation when it happens. It is about preparation and practice creates confidence and ultimately reduces the stress level (Vindas et al., 2017). Indeed, many stressors cannot be avoided, and the best way to prevent them is to prepare for them ahead of time (Dural, & Genc, 2009).

- [1] Ahmad, A. H., & Zakaria, R. (2015). Pain in Times of Stress. The Malaysian journal of medical sciences : MJMS, 22(Spec Issue), 52–61.
- [2] Akgemci, T., Demirsel, M., & Kara, Ö. (2013). The Effect of Psychological Resilience on Employees' Burnout Level. Academic Journal Of Interdisciplinary Studies. doi: 10.5901/ajis.2013.v2n1p122
- [3] Cheng-Hua, Y., & Hsin-Li, C. (2012). Exploring the perceived competence of airport ground staff in dealing with unruly passenger behaviors. Tourism Management, 33(3), 611-621.
- [4] China Airlines. (2010). Passenger service manual. Taipei: China Airlines.
- [5] Embretson, S. E., & Reise, S. P. (2000). Item response theory for psychologists. New Jersey: Lawrence Erlbaum
- [6] Cohen, Sheldon. (1980). Aftereffects of stress on human performance and social behavior: A review of research and theory. Psychological bulletin. 88. 82-108. doi: 10.1037/0033-2909.88.1.82.
- [7] Cooper, C. L., & Marshall, J. (1976). Occupational sources of stress: A review of the literature relating to coronary heart disease and mental ill health. Journal of Occupational Psychology, 49, 11- 28
- [8] Dahlstrom, N & Laursen, Jimisola & Bergström, Johan & , Introduction. (2008). Crew Resource Management, Threat and Error Management, and Assessment of CRM Skills. (Vindas et al., 2017)
- [9] David, D. (2010). Aircrew Fatigue, Sleep Need and Circadian Rhythmicity. Human Factors in Aviation., 401-436.
- [10] Dural, Uzay & Genc, Ruhet. (2009). Flight anxiety, coping and management. British Travel health association journal. 14. 26.
- [11] Duliba, K., Kauffman, R., & Lucas, H. (2001). Appropriating Value from Computerized Reservation System Ownership in the Airline Industry. Organization Science, 12(6), 702-728. doi: 10.1287/orsc.12.6.702.10087
- [12] Faragher, E.B., Cooper, C.L. & Cartwright, S. (2004), A shortened stress evaluation tool (ASSET), Stress and Health, 20(4).
- [13] Huang, C. J., Webb, H. E., Zourdos, M. C., & Acevedo, E. O. (2013). Ca ("Healthy People 2020 goals", 2013) ("Healthy People 2020 goals", 2013) cardiovascular reactivity, stress, and physical activity. Frontiers in physiology, 4, 314. doi:10.3389/fphys.2013.00314
- [14] Jennifer, K. (2005). Stress and Performance A Review of the Literature and its Applicability to the Military. Kavanagh, Jennifer. (2005), 75.
- [15] Johnson, S., Cooper, C., Cartwright, S., Donald, I., Taylor, P., & Millet, C. (2005). The experience of work-related stress across occupations. Journal of managerial psychology Johnson, S., Cooper, C., Cartwright, S., Donald, I., Taylor, P., & Millet, C. (2005). The experience of work-related stress across occupations. Journal of managerial psychology
- [16] Kabir, Syed Muhammad. (2017). Stress and Time Management.
- [17] Kapur, Radhika. (2018). Stress Management - A Case Study. Learning and Development. 8. 10.5296/ijld.v8i4.13840.
- [18] Malaysia Airlines. (2009). Ground operations manual: Passenger and baggage. Kuala Lumpur: Malaysia Airlines
- [19] Medic, G., Wille, M., & Hemels, M. (2017). Short- and long-term health consequences of sleep disruption. Nature And Science Of Sleep, Volume 9, 151-161. doi: 10.2147/nss.s134864
- [20] Michie, S. (2002). Causes and Management Of Stress At Work. Occupational and Environmental Medicine, 59(1), 67-72. doi: 10.1136/oem.59.1.67
- [21] O'Flaherty, J. (2016). Critical Incident Stress Management in Airlines. In Critical Incident Stress Management in Aviation (pp. 107-122). Routledge.
- [22] Oketch-Oboth, Josiah & Odieno, Luke. (2018). The Relationship Between Levels of Stress and Performance.
- [23] Peksatici, O. (2018). Crew Resource Management (CRM) and Cultural Differences Among Cockpit Crew - the Case of Turkey. Journal Of Aviation/Aerospace Education & Research. doi: 10.15394/jaaer.2018.1742
- [24] Tourigny, L., Baba, V., & Wang, X. (2010). Stress episode in aviation: the case of China. Cross Cultural Management: An International Journal, 17(1), 62-78. doi: 10.1108/13527601011016916
- [25] Yang, C. H., & Tseng, T. C. (2010). Practice in international airport passenger service. Taipei: Yang-Chih Book Co., Ltd

REFERENCES

- [1] Ahmad, A. H., & Zakaria, R. (2015). Pain in Times of Stress. The Malaysian journal of medical sciences : MJMS, 22(Spec Issue), 52–61.

