Impact of the COVID-19 Pandemic on Aviation Personnel's Quality of Work-Life and Operational Performance Competency at Suvarnabhumi International Airport

Yada Burapharat, M.A.[1*] Natesiri Ruangariyapuk, D.B.A[2], Punchisa Seetong-on, M.A.[3]
[1*]Bachelor of Business Administration (B.B.A.); Aviation Personnel Development Institute, Kasem Bundit University [2]Bachelor of Arts in Airline Business, Aviation Personnel Development Institute, Kasem Bundit University, [3]Bachelor of Arts in Airline Business, Aviation Personnel Development Institute, Kasem Bundit University
Email * yada.bur@kbu.ac.th

Abstract

This study examines personal factors, the impact of the COVID-19 pandemic on the quality of work-life, and the operational performance of aviation personnel at Suvarnabhumi International Airport. The sample included 400 aviation personnel. The results indicated that the overall impact of the COVID-19 pandemic on quality of work-life was at the highest level (4.36), and the impact on the overall work performance of aviation personnel at Suvarnabhumi International Airport was at the highest level (4.44). The paper discusses the prospective research agenda, the implications of these findings and the benefits of developing operational system guidelines to improve the efficiency of service delivery.

Keywords: quality of work-life, operational performance competency, aviation personnel

1. Introduction

The COVID-19 pandemic affects all occupations. The first visible effects of the COVID-19 virus's transmission are on health. This effect begins when a significant number of people become ill from the virus, which increases healthcare costs and causes deaths. Especially with the elderly, who are most vulnerable to contracting the virus, and the manufacturing sector, which must deal with production interruptions. It also has an effect on employment, which ultimately leads to income loss. This will have an effect on the average family's expenses. (Kritsada Saktrakul, 2020)

Prevention measures that prohibit passengers from traveling internationally and enforce a strict inspection policy that only permits air cargo have a direct impact on the aviation industry. Many nations shut down their airspace. Vaccines or treatments for COVID-19 are not yet available, but the new normal of air travel will force the airline industry to make substantial adjustments. These factors also influence future travel patterns. (Kritsada Saktrakul, 2020)

Personnel in the aviation industry, which is essential to the industry's ability to operate continuously and effectively, are adversely affected especially by the severe mental state caused by stress and depression resulting from a lack of employment and financial security, as well as the lack of physical socialization. Although the ban was lifted on July 1, 2020, the Thai government still restricts the number of visitors by permitting only certain foreign groups to enter the country under quarantine. (Positioning, 2020)

2. Research Objectives

2.1 Study the personal factors of aviation personnel at Suvarnabhumi International Airport.
2.2 Explore the level of COVID-19 pandemic impact on the quality of work-life of aviation personnel at Suvarnabhumi International Airport.

2.3 Study the operational performance of aviation personnel at Suvarnabhumi International Airport.

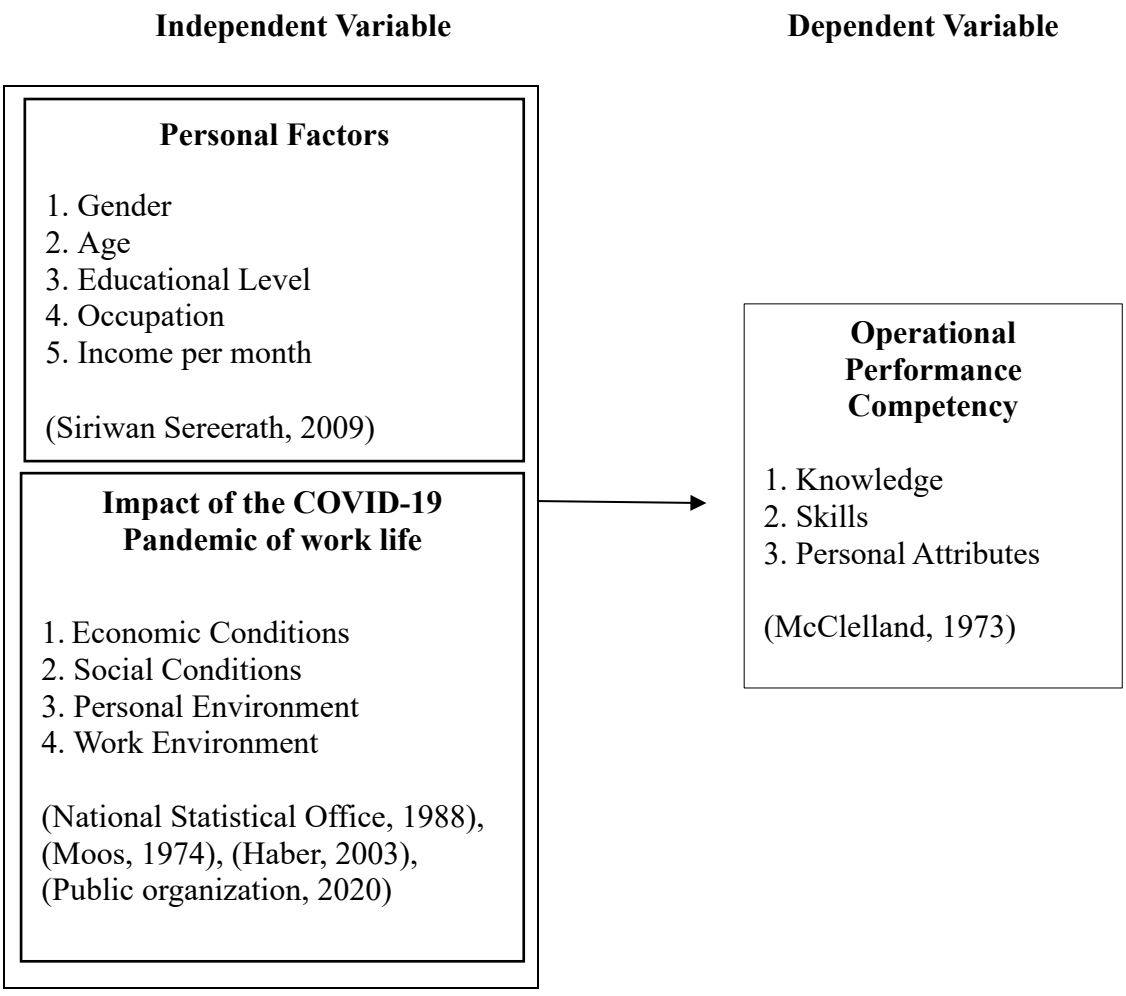
3. Scope of Study

3.1 The population includes an unknown number of aviation personnel working at Suvarnabhumi International Airport.
3.2 The area of responsibility is Suvarnabhumi International Airport.
3.3 The scope of content and the independent variables were personal factors consisting of sex, age, education level, occupation, and average monthly income, and the impact of the COVID-19 epidemic, consisting of economic, social, and personal aspects as well as the workplace. The dependent variables were the ability to perform tasks, namely knowledge, skills, and personal attributes.
3.4 The scope of the study period is from December 2021 to January 2022.

4. Research Hypothesis

The impact of the COVID-19 pandemic on the quality of work-life affects the performance of aviation personnel at Suvarnabhumi International Airport.

Conceptual Framework



5. Theoretical Foundations

5.1 Personal Factors

Essential variables include gender, status, family, age, number of family members, level of education, occupation, and monthly income. Measurable population statistics assist in identifying the target market, while psychological and sociocultural factors explain the target's thoughts and feelings. Demographic data is accessible and beneficial for market targeting. Diverse demographic groups exhibit distinct psychological traits. (Siriwan Sereerath, 2009)

5.2 The Impact of COVID-19 on the Quality of Work-Life

The impact of the COVID-19 pandemic on the quality of work-life can be divided into four categories: economic conditions, social conditions, personal environment, and work environment. The important points are stated below:

5.2.1) Economic conditions: researcher-reviewed papers on economic impact using the National Statistical Office's concept of the income economy (National Statistical Office, 1988), which can be summarized as follows: Due to the economic impact, entrepreneurs are reducing wage rates, compensation, and welfare, affecting personal and family income.

5.2.2) Social conditions can cause changes in life, work, daily interactions, culture, customs, group values, language used for group communication in the community, and the environment in terms of air and water quality, food, and sanitation sufficiency. Community health and well-being are defined as physical and mental well-being, social well-being, disease-free living, anxiety-free living, the need for protection, as well as the community's future concerns and hopes for its children. (Vanclay et al.,2006)

5.2.3) The researcher studies how the personal environment affects the quality of work-life and how supporting factors affect the personal environment of personnel, which can be summarized as follows: Due to social distancing measures, a decline in group activities, and the fact that smaller groups foster greater levels of trust than larger ones, social bonds are weakening. As a result of such occurrences, personal differences increase, leading to a more stressful and anxious lifestyle, as well as mistrust of family, friends, coworkers, and other close individuals. This could result in a lack of cooperation among the organization's employees. Performing collaborative work on your own, resulting in an increase in errors and office tension. (Public Organization, 2020).

5.2.4) Workplace Environment (Moos, 1974) concluded that certain equipment and machinery must be used simultaneously, which increases the risk of virus transmission and poses a health risk. During the pandemic, the organization placed a greater emphasis on preventing the spread of the COVID-19 virus than on improving employee health.

5.3 Operational Performance Competency

In the 1970s, Prof. Dr. university psychologist David C. McClelland was a pioneer in the application of competence concepts. Numerous business consultancies, including Harvard, have studied how the performance of individuals in the same role varies. (McClelland, 1970) The results of the study concluded that highly performing personnel possessed such a thing as competence, and in 1973 McClelland wrote an academic paper, "Testing for Competence rather than Intelligence," which marked the origin of the concept. According to McClelland, a person's characteristics are like icebergs with a tiny portion floating above the water that can be easily viewed and measured: knowledge and skill, where skill refers to ability or exceptional expertise in a variety of disciplines. The other large portion is submerged and cannot be observed or

evaluated as the part that has the greatest influence on a person's behavior, such as their social role or self-image.

To achieve exceptional performance requires more than an attribute or the ability to acquire knowledge and skills; for employees to become extraordinary performers, a comprehensive drive is required, such as emphasizing personal characteristics that are properly represented in society. (Scott B. Parry, 1998) Defined competence as a collection of knowledge, skills, and attitudes that influence the accomplishment of individual performance, which is a duty or role. Nevertheless, the essential elements of competence are interdependent and mutually supportive in three ways:

5.3.1) Knowledge is defined as what one learns through study, research, or experience, and this definition includes both practical skills and understanding abilities as well as knowledge obtained directly from experience. Knowledge in people, or implicit knowledge, refers to individual knowledge derived from experience, study, conversation, training, and an individual's attitude as knowledge plus intellect and experience.

5.3.2) Skills refer to the actions that are repeated many times in matters related to both life and profession based on knowledge, which consists of job-specific skills, the fundamental skills of the job, for which each department has different missions and will be the source of different core skills, and management skills refer to expertise in operations tasks assigned by the organization using various resources through a systematic administrative process.

5.3.3) Person attributes mean thoughts, feelings, attitudes, motivations, and personal needs. A person's image is composed of their characteristics.

6. Methods and Methodology

In this section, we describe the population, data collection methods, instruments, and data analyses used.

6.1 Population, sample, and data collection

This study's population consisted of aviation personnel working at Suvarnabhumi International Airport. The exact number of the population is unknown. The sample size was calculated by using the unknown population formula, which required collecting data from a minimum of 385 aviation personnel and increasing the size of the sample by 15%; therefore, the size of the sample was 400 aviation personnel.

6.2 Instruments

The questionnaire was divided into three sections: demographic information (5 questions), the impact of the COVID-19 pandemic on work-life quality (16 questions), and operational performance (19 questions). The items used were validated and tested for reliability.

Item Objective Congruence Index: IOC was created by three experts. All questions with an IOC value between 0.67 and 1.00 passed the criteria, were taken to try out with a sample group, and received a confidence value of 0.974.

7. Data Analysis and Results

7.1 Descriptive statistic

Table 1

Demographic Characteristics of Participants

n = 400

Variable	Number	%

Gender		
Male	220	55.0
Female	180	45.0
Age		
21 - 30	223	55.8
31 - 40	138	34.5
41 - 50	34	8.5
51 and above	5	1.2
Educational Level		
Lower than high school	13	3.3
High School	28	7.0
Vocational Certificate	36	9.0
Bachelor	277	69.3
Master and above	46	11.4
Occupation		
Flight Attendant	78	19.5
Ground Staff	243	60.8
Security Staff	45	11.3
Cleaning Staff	25	6.3
Others	9	2.1
Income per month		
5,001 - 15,000	86	21.5
15,001 - 25,000	147	36.8
25,001 - 35,000	86	21.5
35,001 and above	81	20.2

The majority of participants were male (55%) and aged 21–30 (55.8%). Most had a bachelor's degree (69.3%) and were from ground service departments (60.8%). The respondents mostly had a monthly income of 15,001–25,000 Thai baht (36.8%).

Table 2

The overall mean value of the impact of the COVID-19 pandemic on the quality of work life

Impact of the COVID-19 Pandemic	Mean	SD
Economic Conditions	4.34	.58
Social Conditions	4.32	.57
Personal Environment	4.36	.58
Work Environment	4.41	.52
Overall	4.36	.70

Among aviation personnel, the results indicate that the average level of impact of the COVID-19 pandemic on the quality of work life is the highest level (mean = 4.36).

Table 3

The overall mean value of the Operational Performance Competency

Operational Performance Competency	Mean	SD
Knowledge	4.40	.58

Skills	4.34	.88
Personal Attributes	4.54	.99
Overall	4.42	.69

Among aviation personnel, the results indicate that the average level of operational performance competency is the highest (4.42): work knowledge (highest), feeling supported by your colleagues (high), enjoying working (moderate), not feeling any anxiety at work (moderate).

Regarding personal characteristics at work, the supervisor accepts and believes in your task (highest), you acknowledge and value the work you perform, and you like working (highest).

Factors affecting the work performance of aviation personnel at Suvarnabhumi International Airport when considering all aspects were personal characteristics at work (highest), work skills (highest), and knowledge in practice (highest), respectively.

7.2 Correlations

The impact of the COVID-19 pandemic on the economic conditions, social conditions, personal environment, and work environment aspects that affect knowledge, skills, and personal attributes by using Pearson's correlation statistical analysis.

Impact on the quality of work-life	Economic Conditions, Social Conditions, Personal Environment and Work Environment that affect Knowledge, Skills and Personal Attributes			
	Pearson's Correlation	Signification Level	Direction	Relationship Level
1. Economic conditions that affect knowledge in operational performance competency	.568	.001	positive	moderate
2. Economic conditions that affect skills in operational performance competency	.525	.001	same	moderate
3. Economic conditions that affect personal attributes in operational performance competency	.388	.001	same	low
4. Social conditions that affect knowledge in operational performance competency	.615	.001	same	moderate
5. Social conditions that affect skills in operational performance competency	.584	.001	same	moderate
6. Social conditions that affect personal attributes in operational performance competency	.414	.001	same	low
7. Personal environment that affect knowledge in operational performance competency	.634	.001	same	moderate
8. Personal environment that affect skills in operational performance competency	.574	.001	same	moderate
9. Personal environment that affect personal attributes in operational performance competency	.418	.001	same	low

Impact on the quality of work-life	Economic Conditions, Social Conditions, Personal Environment and Work Environment that affect Knowledge, Skills and Personal Attributes			
	Pearson's Correlation	Signification Level	Direction	Relationship Level
10. Work environment that affect knowledge in operational performance competency	.708	.001	same	moderate
11. Work environment that affect skills in operational performance competency	.630	.001	same	moderate
12. Work environment that affect personal attributes in operational performance competency	.499	.001	same	low

Objective summary
Objective 1: The results of the analysis of personal factors revealed that there were 220 males, 223 people aged 21–30 years, 277 people with a bachelor's degree or equivalent, 243 people who are ground service agents, and 147 people with an average monthly income of 15,001–25,000 baht.

Objective 2: The COVID-19 epidemic had the greatest impact on overall work life quality (4.36), with the first being the workplace aspect (4.41), and the last being the social aspect (4.32).

Objective 3 The performance of aviation personnel at Suvarnabhumi International Airport had the highest overall rating of 4.36, with the first being personal characteristics in the performance of work (4.54), and the last being skills (4.34).

Hypothesis result: The impact of the COVID-19 epidemic on the economic, social, personal, and workplace aspects that affect knowledge, as well as the skills and personal attributes, when viewed individually, can be seen to be in the same direction, respectively, in relation to the level of relationship. There are two levels of correlation: low and medium, respectively.

8. Discussion

Personal factors of aviation personnel at Suvarnabhumi International Airport, when analyzed by aspect, showed that the COVID-19 pandemic affected the quality of work-life similarly across genders, but differently across ages, occupations, education, and average monthly incomes. This is consistent with Sriwan Sereerat (2009), who asserts that individuals with distinct demographic characteristics will have distinct psychological traits.

The COVID-19 pandemic has the same effect on Suvarnabhumi International Airport aviation personnel's quality of work-life and operational performance. In terms of relationship level, there were different levels of relationship at low and medium levels, with the work environment affecting knowledge of work, followed by the personal environment, and then the work environment affecting skills, in line with (Moos, 1974), which states that workplace insecurity due to work equipment increases the risk of disease outbreaks and decreases workplace comfort, and that organizations are decreasing employee health promotion because they must focus on preventing the spread of COVID-19 rather than promoting employee health, which is consistent with Parry, Scott B. (1988). pp. 48–56 said that core knowledge is the fundamental information

that every member of an organization must possess. Advanced knowledge is knowledge that guides an organization to the point of competition; it is specialized knowledge that is distinct from competitors, and innovation knowledge is knowledge that enables an outstanding organization to become a market leader.

When each aspect of aviation personnel's operational performance at Suvarnabhumi International Airport was examined, it was discovered that personal attributes in performance were rated the highest. The aspect of work skills was at the highest level of opinion. Working knowledge was at the highest opinion level, respectively. According to the research of Jutamas Charoensuk and Krisada Muhammad (2021), the operational competency factors that most affected the operational efficiency of military officials: a case study of the Royal Thai Armed Forces Development Headquarters were ethics, professional skill attitude, and professional value, with a statistical significance of 0.05 for professional knowledge that did not affect and a predictive power of 73.4%.

9. Suggestion and Future Research

Reducing the impact of the COVID-19 epidemic on the quality of work life.
To reduce the economic impact, the government should provide remedial measures for employees affected by COVID-19 by supporting subsidies for employees with reduced income and aiding companies in covering a portion of affected employees' salaries to prevent layoffs.

To reduce social impacts, organizational executives should schedule video conference meetings and discussions between personnel and organizational executives to discuss the problem and exchange ideas, which can reduce the stress of personnel.

Organizations should maintain the standard of increasing the salary and position of personnel as appropriate, while minimizing the personal impact on personnel, in order to strengthen the confidence of personnel in the organization and provide stability and advancement opportunities at work.

To reduce the impact on the workplace, the organization should implement safety standards to prevent the spread of the virus, such as setting up desks so that there is space between people, not sharing office equipment unless absolutely necessary, requiring employees to always wear gloves, and requiring employees to always wear a mask at work.

Enhancing the ability on operational performance.
In terms of operational knowledge, executives in the organization should organize work-related knowledge training for personnel via video conference so that personnel are constantly aware of up-to-date information and are aware of operational guidelines that must be revised at least every three months to reflect the current situation.

In terms of operational skills, executives in the organization should organize training for personnel to improve their skills by practicing in actual circumstances with no more than 30 participants.

As for personal characteristics, executives in the organization should test personnel's skills, abilities, and attitudes at least twice a year and set up awards for each rank along with appropriate compensation in each position for service-minded personnel or those who never break the organization's rules to increase motivation and operational efficiency, particularly

during the pandemic when personnel may have more time to create work.

For future studies, we suggest further research on operational guidelines to reduce the risk of exposure to COVID-19 and the impact of the COVID-19 pandemic on aviation personnel at other airports and other types of businesses affected by COVID-19.

10. Conclusion

This study presents the average value of the impact of the COVID-19 pandemic on aviation personnel at Suvarnabhumi International Airport. In light of the above discussion, the impact of the COVID-19 pandemic has affected the operations of aviation personnel at Suvarnabhumi International Airport. Organizations and relevant agencies ought to focus on developing, enhancing, and establishing operational guidelines in order to increase their service capabilities during the pandemic.

11. References

Delamotte, Y., & Takezawa, S. (1984). *Quality of Working Life in International Perspective.* Geneva: International Labour Office.

Digital Research Information Center, (2020). *Global coronavirus situation.* Available at: https://thestandard.co/world-covid-19-report-22092020 access: 30 November 2021

Jidapa Boonnontae, (2008). *Self-development needs of personnel working in the office*. Khon Kaen Educational Area. Master of Education, Department of Educational Administration, Khon Kaen University.

Jirakitwiboon, T. (2015). *The Quality of Working Life and Processes That Able to Motivate Employees in Amata Nakorn Industrial Estate*. Master of Business Administration. Bangkok University.

Kanlaya Wanichbuncha. (2006). *Statistics for research. (2nd edition).* Printing office. Chulalongkorn University.

Kanokporn Seedokmai, (2006) *Assessment of Performance Competency of Personnel in Administrative Organizations.* Surat Thani province. Master of Public Administration, Management Science Sukhothai Thammathirat Open University

Kanyanut Pinket, (2016). *A study of personal factors*. Working environment factors and quality of work life factors that affect the organizational engagement of employees at the operational level Port Authority of Thailand. Available at: http://dspace.bu.ac.th/bitstream/123456789/3030/1/suchada.ping.pdf. access: 30 November 2021

Kaonoppharat, P. (2015). *Factors Affected the Labors Quality of Life in Industrial Factories in Songkhla Province after the Adoption of the Three-hundred Baht Minimum Wage Policy.* Master of Arts in Social Development Administration. Prince of Songkla University.

Krungsriguru, (2020). *The impact of Covid-19 on the Thai economy*.

Available at: https://www.krungsri.com/th/plearn-plearn/covid19-newnormal-with-sme
access: 30 November 2021

McClelland, D. C. (1973). *Testing for competence rather than for "intelligence*." American Psychologist, 28(1), 1–14.
Available at: https://doi.org/10.1037/h0034092

Moos, R. H. (1974). *Psychological environments: Expanding the scope of human ecology.* American Psychologist.
Available at: https://psycnet.apa.org/doiLanding?doi=10.1037%2Fh0035994
access: 30 November 2021

Parry, Scott B. (1998). *"The Quest for Competencies."* Journal of Training, pp. 48-56.

Rungtiwa Suda, (2016). *Factors affecting the work performance of ground receptionists.*
Stationed at Don Mueang International Airport.
Available at: http://ojs.kmutnb.ac.th/index.php/jote/article/download/3009/2327
access: 30 November 2021

Siriwan Sereerat. (2009). *Marketing Management.* Bangkok: Development Studies.

Supichaya Wongwassana, (2021). *Negative impact factors from COVID-19 affect happiness at work.*
of passenger department employees, a case study of Bangkok Flight Services Co., Ltd. (BFS). Available at: https://apdi.kbu.ac.th/Research%20database.

Vanclay.F, Howden.P, Mesiti. L, & Glyde. S. (2006). *The Social and Intellectual Construction of Farming Styles: Testing Dutch Ideas in Australian Agriculture.* Journal of European Society for Rural Sociology.
Available at: https://doi.org/10.1111/j.1467-9523.2006.00404.x