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The role of flight dispatchers: Analysis of workload balancing of scheduled domestic flights at the airport in Pasay city

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Article Info

Abstract

This paper examines the role of flight dispatchers in analyzing the workload balancing of scheduled domestic flights at the airport in Pasay City. Various factors were analyzed to understand if there was a significant effect on how flight dispatchers balance their workload. Using the qualitative and quantitative research design, results were able to be identified. Out of 24 respondents, one factor shows a significant difference in Professional Adaptation in terms of the sex of the flight dispatchers. Using thematic analysis and phenomenology, Experience, and Maternity were the focal points of the informants when gender-related issues impacted the performance of flight dispatchers. The implications of this study are to identify and address issues on how these factors can affect the job performance and workload balance of a Flight Dispatcher.

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1. Introduction

The aviation industry is a highly specialized symphony conducted by experts who guarantee the effectiveness and safety of aircraft that crisscross the skies. Flight dispatchers are the unacknowledged heroes at the center of this elaborate operation, guiding travelers through the confusing maze of flight logistics. They are in charge of striking a balance between passengers' general well-being, effectiveness, and safety when creating flight plans. This study examines the psychological and environmental interactions that affect the crucial skill of workload balancing for flight dispatchers, the brains of aviation.

It has been demonstrated that flight dispatchers are one of the most efficient jobs and play an important role in the aviation industry. They focused on the safety of the passengers and allowed various airports to continue scheduled flights throughout the year to gain more profit. However, flight dispatchers possess these various roles of providing safety and efficient flight plans. There are a lot of misconceptions about their work that they face daily. Examples are overdue workloads of nonstop flight plans, mandatory checking of aircraft performance assessment of loading and unloading of cargoes, time-to-time update of weather information, and more. Therefore, as the Philippines ranks as the 3rd stressful airport in Asia in the year 2022, there is no doubt that flight dispatchers in the Philippines have too much to suffer.

Flight dispatchers' optimal (high) stress resistance can be regarded as their most crucial professional trait since it enables them to maintain their composure in the face of stressors and maintain their productivity throughout the entire workday and across all duties. As well as their professional knowledge and skills, stress resistance can be regarded as one of flight dispatchers' most crucial professional attributes (Uvarova *et al.*, 2019) [21]. Stress impacts employees' job satisfaction and to pick out the factors that cause job stress, which ends up in lower activity satisfaction (Iqbal & Waseem, 2012) [9]. Airlines should implement appropriate management methods to reduce these stressors, especially role conflict and role overload, given the critical jobs that

flight dispatchers perform and the high levels of role stress they experience. Self-efficacy can protect against mental fatigue and job dissatisfaction, enhancing the company's benefits and improving flight safety. Airlines should hire people with high levels of self-efficacy or train current employees to have higher levels of self-efficacy (Liu et al., 2011) [12].

Due to variables relating to their jobs, flight dispatchers frequently feel worn out and stressed out at work. The impact of weariness and work stress on performance is an essential concern for aviation safety. Flight dispatchers said that working at night led to high levels of exhaustion and stress due to the demands of their jobs. Consequences for managing fatigue and stress were also explored (Jung et al., 2017) [11]. The nonstop workloads, busy airport schedules, and sudden changes in weather conditions are the factors that primarily affect flight dispatchers; these factors cause flight delays due to insufficient flight dispatchers in the field. The research offers a comprehensive perspective on flight dispatchers' stress and fatigue management (Stokes & Kite, 2017) [19]. Airport dispatchers often work under time constraints, and their decisions have a significant impact on airport traffic safety. It involves skills such as perception, attention, memorization, circumstance-intellection, pattern-recognition, and multi-function, in which everyone does their part in enhancing the skills of the dispatcher but also introduces limitations and biases that may result in errors (Munro & Mogford, 2018) [13]. Mental overload can result from a combination of task-related factors and individual characteristics like alertness. Improving worker well-being and safety should consider both work organization and task constraints, as they can affect mental workload (Galy, 2012) [7].

Airlines collaborate with various organizations to ensure safe and efficient flights. Efficiency depends on dispatcher workload, which can be aided by automated technology during busy periods (Huang et al., 2019) [8]. The computation of flight parameters, flight planning, helping the crew get ready for the trip, and flight control are just a few of the many activities that flight dispatchers conduct in the flight information service. These tasks must be carried out quickly, firmly, and exceedingly precisely. The combination of all these working circumstances makes it particularly difficult for young professionals to adapt (Surkov, et al., 2021) [20]. The consequences of poor communication can be grave and perhaps fatal. Incidents, mishaps, and events regularly indicate communication breakdowns (Alharasees, et al., 2022) [24]. Gaining an understanding of what it means to be a gender minority in the aviation industry while making the necessary adjustments to ensure an effective, sex-diverse aviation industry. The aviation industry needs to remove unfair treatment against women and support their career advancement and opportunities, make women feel less disregarded, and improve the women's presence in aviation (Casebolt, 2023) [5]. OCCs are commonly made of plane dispatchers, preservation employees, and different operational employees. However, there's a growing trend in those manipulating facilities to comprise additional key departments, including the commercial department, social media teams, ground operations, and others, to improve choice-making strategies (Jimenez Serrano & Kazda, 2017) [10]. Dispatchers' decisions were analyzed to infer airline cancellation utility functions with binary choice models (Xiong & Hansen, 2013) [22]. A dispatcher prioritizes fixing irregular flights with significant delays over seeking the best solution for all flights. They prefer similar aircraft types and minimal actions (Pei, et al., 2021) [14].

The flight dispatchers must have a workload that will not exceed the maximum time given to them unless unexpected events and unforeseen emergencies happen (Rayner, 2021) [15]. Third pilots, also known as flight dispatchers, ensure the safety and success of airline operations by serving as a guide to determine possible consequences during flights. They also play a crucial role in airline industries and aviation processes even without a physical presence aboard the aircraft (Boo, 2016) [3]. Since unexpected events and emergencies can occur anytime, flight dispatchers must know the correct routes and places to avoid any consequences. This may also lead to changes in reaching maximum workloads for flight dispatchers since they need to ensure that everyone in the aviation process is safe (Casadevall et al. 2017) [4]. When an airplane is unable to land at its primary destination airport, it is routed to an alternative airport. Divergences can result from a variety of factors, including adverse weather. Even though the latter is unpredictable, the former could be learned from observed diversions given the weather at the projected arrival time as well as the aircraft and airport landing capacity (Dalmau & Gawinowski, 2023) [6]. Thunderstorms are one of the most avoided weather conditions by pilots and flight dispatchers, for they commonly cause unexpected additional workloads during certain emergencies (Yao et al., 2021) [23]. One of the most important factors in making flights effective and safe is the work of the flight dispatchers. Air traffic controllers and flight dispatchers perceive potential benefits in using statistical weather predictions for alternate route preparation (Sheth et al., 2009) [17].

These problems such as Psychological and Environmental problems have greatly affected flight dispatcher's performance in terms of their workload balancing. Different factors and variables in recent studies have been used to identify and determine flight dispatcher's efficiency in their work.

1.2. Background of the Study
The establishment of the primary airport in Pasay City. as a military post is where the airport's beginnings can be found. It was initially intended for military use and was known as Nichols Field by American officials in the 1930s. When Manila International Airport assumed control of civilian air operations in 1948, it underwent a transition. This change required the transfer of these operations from the former Nielsen Field in downtown Makati. The airport was renamed in 1987 and afterward dedicated to Benigno "Ninoy" Aquino, Jr. Four years had passed since the terrible incident in which he was fatally shot upon his return from self-imposed exile in the United States on the airport's runway apron. There are 4 major terminals available in the main airport of the Philippines and these terminals are assigned to serve the international and domestic flights for the country. It provides international and domestic service carriers for passengers known as Philippine Airlines, Cebu Pacific, and AirAsia. These three airlines provide nonstop service for airline commuters who travel mostly inside and erratically outside the country.

Flight dispatchers have tons of workload under time pressure just to ensure and manage the safe route of the flight. Despite the pressure, workload, tight schedules, and unexpected changes in flight plans, flight dispatchers have the reputation

of being one of the highest-paying jobs in aviation. An aircraft dispatcher deals with a lot of sustainable work that can be difficult at times. The amount of salary will depend upon the working experience such as those long-term career dispatchers with higher demand than those starting or beginning flight dispatchers. Most airline companies prefer flight dispatchers with long-term experience and they are commonly offered more acceptable salary demands to them

than the others. Flight Dispatchers' salaries in Manila, Philippines are estimated at 60,500 pesos monthly with an average of 27,500 pesos per month. Flight dispatchers also received additional pay with an estimate of 33,000 pesos per month; this includes bonuses, extra tips, commissions, and profit–sharing.
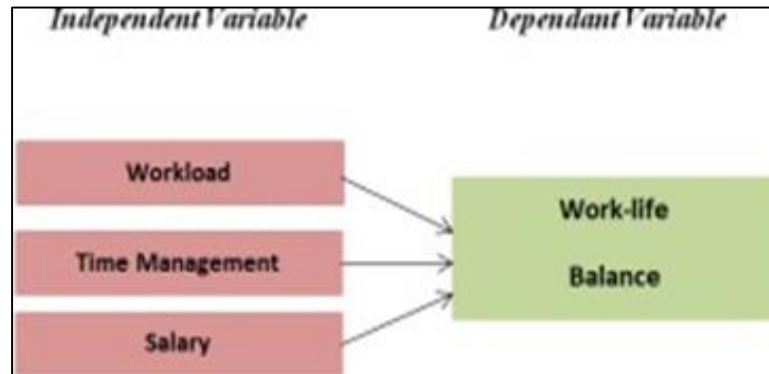
1.2. Theoretical Framework

Fig 1: A Case Study on the Factors Influencing the Employee's Work-Life Balance in Private Services Sector

Workload balancing in aviation is a complex task that requires an extensive understanding of human factors, mental workload theory, and the particular needs of aviation operations. The psychological as well as emotional stressors that flight dispatchers experience, such as managing flights, handling emergencies, and coping with unpredictable flight patterns. The efficiency and safety operations in aviation are significantly affected by effective work balancing. The chance of errors is decreased, decision-making becomes more effective, and the overall efficiency of operations is improved when the workload is properly handled.

In addition, Work-life balance has long been a source of worry for individuals concerned with their level of life at work and its relationship to larger issues. Work-life balance is a critical component of a healthy and effective workplace. Anyone who effectively achieves this balance devotes time to work-related responsibilities and personal affairs without getting stressed or frustrated. The purpose of this study report was to figure out the impact of workload and conflicts between roles on workers' work-life balance.
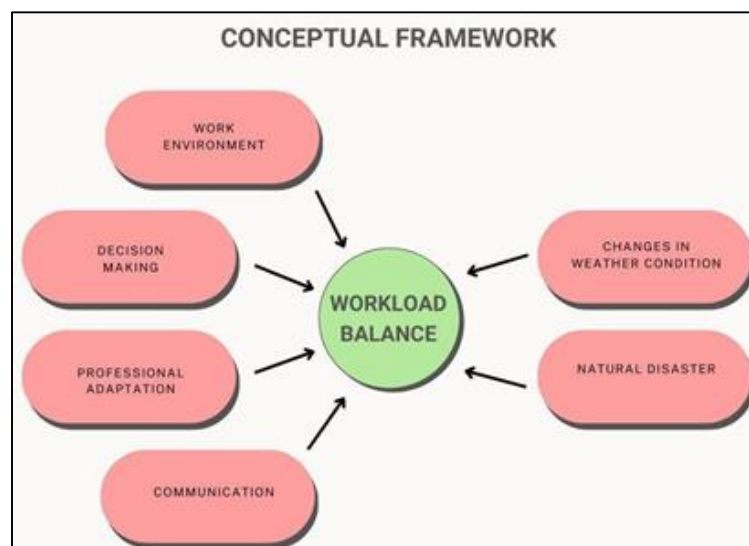
1.3. Conceptual Framework

Fig 2: A Conceptual Framework showing the Factors That Affect the Workload Balance of Flight Dispatchers

This conceptual framework above shows 6 factors or variables that affect the workload of a flight dispatcher, namely, work environment, decision-making, professional adaptation, communication, changes in weather conditions, and natural disasters. The dependent variable at the center which is the workload balance is the focus of the study. Decision-making involves analyzing options, gathering data, and deciding. Individuals take a series of steps to determine

the best course of action to meet their needs. A work environment encompasses the physical and social surroundings in which a person works and has the power to greatly impact their productivity, satisfaction, health, and relationships with colleagues. Professional adaptation involves adjusting and learning new skills to excel in changing work environments. It is like updating your tools to match the demands of your work. Adapting professionally

helps you stay relevant and effective, especially as technology and industries are involved.

Effective communication can significantly impact workload in various ways. Clear and on-time communication helps in reducing misunderstandings, which can prevent unnecessary tasks or repeat the work. Flight dispatchers reroute their present flight operations due to unforeseen changes in the weather. The most hazardous weather situations for pilots and flight dispatchers to avoid include thunderstorms. Flight dispatchers must be aware of potential unforeseen events and determine the safest paths while dealing with this type of natural disaster. Due to the uncertain timing, this may increase the workload for flight dispatchers, who then have to calculate altitude and reroutes to avoid extremely turbulent or other flight-affecting situations.

1.4. Statement of the Problem
This study aimed to analyze the role of flight dispatchers: workload balancing of scheduled domestic flights at the airport in Pasay City.

Specifically, the study sought the answers to the following questions
1. How does workload balancing affect the psychological well-being of flight dispatchers at the Airport in Pasay City?
2. How do these factors affect the effectiveness in workload balancing in terms of
   a. Work Environment;
   b. Decision-Making;
   c. Professional Adaptation; and
   d. Communication?

3. Is there a significant difference in the effectiveness of workload balancing in terms of work environment, decision making, professional adaptation, and communication, and when respondents are grouped according to their profile?
4. How do flight dispatchers handle the complex task of workload balancing when faced with unforeseen circumstances such as:
   a. Natural Disasters; and
   b. Changes in Weather Condition?

5. Based on the perception of the respondents, how does the sex of the respondents impact the effectiveness of workload balancing in the professional adaptation of flight dispatchers?

1.5. Hypothesis
There is no significant difference in the effectiveness of workload balancing in terms of work environment, decision making, professional adaptation, and communication and when respondents are grouped according to their profile.

1.6. Significance of the Study
Current and Future Flight Dispatchers
The study aims to identify the impact of workload balancing on future and current flight dispatchers. The flight operation officers will be able to identify the causes of their work's challenges with the aid of this research, and it will also enable them to concentrate on the situations they will encounter.

Organizations and Company: This research aims to benefit organizations and companies involved in aviation operations to know the importance of their workers, like pilots, cabin crew, and especially flight dispatchers in the aviation field. Organizations and companies investing in the aviation business will be aware of taking good care of employees, such as the importance of flight dispatchers in their field.

Future Researchers
This study intends to equip future researchers with knowledge and a framework for future research on flight dispatchers, focusing on the field's benefits and drawbacks. Future researchers can be more comprehensive and specific about this topic for future references and ideas for their research or investigations. By using this study, future researchers can be more enhanced and accurate regarding flight dispatchers at the Airport in Pasay City.

2. Methodology
2.1. Research Design
The study presented a descriptive and negative correlation of a quantitative research approach. A descriptive approach was used with the collected data sample of the flight dispatcher workload balance of domestic flights at the airport of Pasay City, along with analyzing the harmful effects of some variables through correlation studies that hinder the psychological well-being of flight dispatchers inside their work environment, decision-making, professional adaptation, and communication towards their workloads. It also utilizes the phenomenology qualitative research approach that conveys the flight dispatcher's personal experience on how they handle complex work and social life balancing tasks. Therefore, qualitative and quantitative approaches focused on flight dispatchers who served and still work in the industry and experience this kind of work-and-life balance to become efficient and effective aviation industry employees.

The researchers used a mixed-methods approach, using questionnaires and surveys for a quantitative approach to assess workload distribution, complemented by one-on-one interviews for qualitative insights, permitting an intensive analysis of flight dispatch operations. Questionnaires and surveys, as a beneficial quantitative approach, permit efficient, structured statistics series to assess workload distribution throughout a vast pattern of flight dispatchers, providing critical statistical insights. For the qualitative approach, the researchers used one-on-one interviews to discover the complexity of flight dispatchers' experiences and perspectives, exposing the human elements of their roles. The researchers' blended-methods approach no longer only ensures complete expertise of our study problem but also combines quantitative information from questionnaires and surveys with qualitative insights from one-on-one interviews to contribute to the validity and reliability of our findings. Lastly, numerical statistics and narratives, thereby considerably contributing to the sector of the aviation industry.

The research data analysis consists of cross-tabulation and thematic analysis. Some results were compared to one or more variables to formulate different outcomes. Examples are how a flight dispatcher's individuality can handle the risk of critical decision-making inside their work field or how a

flight dispatcher's age and experience affect the complexity of their work and life balance. The researchers can systematically discover and clarify the relationships and dependencies among those variables through cross-tabulation, clearing variations and traits that might, in any case, be hidden. The researchers purposefully chose thematic evaluation as our data analysis because of its consistent compatibility with our statistical collection approach based on one-on-one interviews. Thematic evaluation excels at thorough insights from qualitative information accumulated through personal interviews, so alignment is crucial. This method lets us study the narratives and perspectives shared through interviewees, allowing us to discover rising subject matters, problems, and underlying meanings in our thesis.

2.2. Respondents

The researchers' target respondents are current flight dispatchers operating in Pasay City, primarily in the general aviation and flight dispatchers employed by airlines. Present-day flight dispatchers are aware of their professional surroundings and other duties. The survey and interview aimed to allow flight dispatchers to freely share their views and ideas on specific subjects, goods, services, or regulations, identify many variables that influence flight dispatcher's experiences at work, and how they connect to this study. For the required data, the researchers gathered a list of all the flight dispatchers within Pasay City. A total population of 198 flight dispatchers was collected from the Civil Aviation Authority of the Philippines (CAAP). The required respondents were determined using Slovin's formula (n = N/1+Ne2). A total of 132 sample sizes were gathered. Using the formula (responses/sample size) *100, the sample size was used to calculate the survey's acceptable response rate. From the sample size of 132 flight dispatchers, the researchers collected 24 responses. The external survey's response rate is between 10% to 15%. By applying the calculation for the acceptable survey response rate, the researchers acquired 18.18% regarded as an acceptable result for an external survey.

Table 1: Respondents Profile Frequency Table by Age

Age	Frequency	Percentage
21-25	8	33.3
25-30	10	41.7
30-35	3	12.5
35 above	3	12.5
Total	24	100.0

According to the age range profile frequency table shown above, a larger number of respondents fall in the 25-30 age bracket. This concentration of respondents in this age group requires a closer examination of factors that may be particularly relevant to them, which can influence the overall dynamics of our study. Understanding the characteristics and perspectives of individuals aged 25-30 can enrich the contextual interpretation of our research outcomes.

Table 2: Respondents Profile Frequency Table by Sex

Sex	Frequency	Percentage
Male	17	70.8
Female	7	29.2
Total	24	100.0

The table above shows that there were more male respondents in our research. This gender imbalance highlights the importance of examining gender-specific factors that may have influenced our findings. Acknowledging and understanding these nuances is crucial for a comprehensive interpretation of the study outcomes.

Table 3: Respondents Profile Frequency Table by Work Shift

Work Shift	Frequency	Percentage
Day Shift	9	37.5
Night Shift	15	62.5
Total	24	100.0

The table above shows that the majority of the respondents in our research work night shifts. This observation highlights the importance of investigating the potential impact of unconventional work hours on our study variables. It emphasizes the need for a more detailed analysis within this specific work context. The increased frequency of night shift workers provides valuable insights into the study outcomes in the context of distinct work schedules.

Table 4: Respondents Profile Frequency Table by Position

Position	Frequency	Percentage
Airline Flight	15	62.5
Dispatcher		
General		
Aviation		
Flight	9	37.5
Dispatcher		
Total	24	100.0

The table above indicates a significant presence of airline flight dispatchers in our study. This concentration prompts a focused exploration of factors unique to this profession, offering valuable insights into the dynamics of aviation operations. Understanding the specific contributions of this occupational group enhances the contextual interpretation of our research outcomes.

2.3. Settings

This study aimed to determine the factors that affect the workload balance for scheduled domestic flights at the Pasay City airport. The factors include work environment, decision-making, professional adaptation, communication, weather conditions, and natural disasters. The study will focus solely on the current condition of flight dispatchers and how the distribution of tasks affects their performance and health. It is essential to note that this research will only examine the roles of flight dispatchers and will not include air traffic controllers, ground operators, pilots, and other aviation personnel. The survey was conducted with the availability of flight dispatchers as the respondents due to their profession's demands and time constraints. The study will also not apply to career fields or locations other than Pasay City. The study did not apply to career fields or locations other than Pasay City. The researchers conducted their survey at the airport, specifically in Pasay City. The site was strategically located as a domestic airline hub, operating many scheduled domestic flights daily. The constantly changing environment of the site provided an excellent platform for investigating the workload balance issues that flight dispatchers faced as they managed the complicated nature of flight scheduling in the dynamic

aviation sector. The study's main objective was to provide valuable insights into the critical role of flight dispatchers in balancing the workload for scheduled domestic flights at the airport located in Pasay City.

2.4. Instrumentation
To gather data, the researchers used a survey questionnaire. For each Statement of the Problem (SOP), there are four and seven Reviews of Related Literature, respectively. A minimum of five statement questions from each RRL are generated and will be utilized in the survey questionnaire. To improve the validity and quality of the survey questions, the questionnaire was validated by several people with experience in the aviation industry. These people included a Flight Operations Officer (FOO), a Private Pilot License (PPL) holder, and a professor from one of the aviation colleges in Paranaque City. The researchers randomly chose 30 respondents and gave them the questionnaire after making the necessary adjustments to gather data (Pilot Test) and further confirm the statements and questions that would be used.

The researchers used a comprehensive interview method to collect data for the study. The researchers organized survey questionnaires with a total of twenty-four general aviation and airline flight dispatchers serving as respondents to answer the questions through Google Forms or printed questionnaires. The researchers selected three respondents and conducted a face-to-face and online interview to obtain a clear understanding of the topic. Each response is captured with mobile phones through video and audio recording. The answers were transcribed, translated, and coded to identify the themes regarding the response to the interview questions.

2.5. Data Analysis
The data collected from respondents' responses to the research study have been analyzed using statistical tools that serve a purpose for the researchers using different methods to contribute such as frequency and percentage for the respondents' profile, weighted mean for the surveys using Likert scale measure of respondents' level of agreement with the given statement in the survey to many different points of view of a flight dispatcher in Pasay City. Using the slovin's formula the researchers were able to accurately estimate the required respondents which focuses on a relatively small population of flight dispatchers in Pasay City. The convenience sampling method takes advantage of accessibility through known people in the field based on the researcher's paper. The snowball method emphasizes the advantages of passing the survey through connections within the field. The means of the two groups were compared using statistical techniques like the T-test, taking into account factors like age, sex, position, and work shift. Analysis of Variance (ANOVA) was used to determine whether the null hypothesis should be accepted or rejected.

2.6. Ethical Considerations
The researchers' efforts align with the fundamental principles of ethical research, ensuring no information about the respondents was leaked during the survey. This approach respects the rights and well-being of the participants and contributes to the ethical advancement of research in the chosen field. The researchers have diligently cited and given proper credit to the sources, data, and ideas used in this study. The researchers have also used plagiarism detection tools to identify and address any unintended instances of plagiarism. These tools were used to ensure the originality of the researcher's contributions to the study. Compliance with ethical guidelines ensures that the utilization of AI tools in this study adheres to the utmost moral standards, upholds the rights and well-being of participants, and contributes to the progress of AI technology in research.

3. Result and Analysis
3.1. Effects of workload balancing to the psychological well-being of flight dispatchers at the Airport in Pasay City

Table 5: Workload Balancing Affecting the Psychological Well-Being of Flight Dispatchers at the Airport in Pasay City

Workload Balancing Effects	SD	Mean	Remarks
Even though I always faced nonstop workloads, I must always provide safety and efficient aviation service.	0.53161	3.75	Strongly Agree
Work and life balance is a great factor to consider as a flight dispatcher to enjoy my work environment in providing the best flight service in our country.	0.41485	3.79	Strongly Agree
I consider the interplay of intrinsic, extraneous, and germane cognitive load to enhance work experiences and performance in complex tasks.	0.63702	3.33	Strongly Agree
Regardless of any problem or stress I have on my workload, I need to set it aside for me to perform well in my work.	0.56466	3.67	Strongly Agree
I'm satisfied with my work, and I finish it on time even though it is stressful because of the workload.	0.58977	3.50	Strongly Agree
I make sure that I do not overextend myself to remain focused at all times.	0.64690	3.38	Strongly Agree
As a flight dispatcher, improving working conditions, pay, and supervisor interactions is essential for better performance and efficiency.	0.60792	3.75	Strongly Agree
Composite mean	*0.40946*	*3.60*	Strongly Agree

Legend: 3.26 - 4.00 Strongly Agree; 2.51 - 3.25 Agree; 1.76 - 2.50 Disagree; 1.00 - 1.75 Strongly Agree

As shown in the table above, the workload balancing affecting the psychological well-being of flight dispatchers at the Airport in Pasay City resulted in a composite mean of 3.60 suggesting a strongly agreed response. Furthermore, all the statements presented above are interpreted as strongly agreed.

The highlighted highest mean of 3.79, interpreted as strongly agree response, was statement number 2 "Work and life balance is a great factor to consider as a flight dispatcher to enjoy my work environment in providing the best flight service in our country" followed by statement number 1 "Even though I always faced nonstop workloads, I must always provide safety and efficient aviation service" and statement number 7 "As a flight dispatcher, improving

working conditions, pay, and supervisor interactions is essential for better performance and efficiency" having the same mean of 3.75, also interpreted as strongly agree response. The lowest mean of 3.33 interpreted as a strongly agreed response fell under statement number 3 "I consider the interplay of intrinsic, extraneous, and germane cognitive load to enhance work experiences and performance in complex tasks".

Overall results suggest that there is a strong positive level of agreement and approval on the workload balance affecting the psychological well-being of flight dispatchers at the Airport in Pasay City. Flight dispatchers carry a significant amount of stress due to the precise nature of their tasks which are crucial for ensuring the safety of passengers. Their dedication to maintaining flight safety amid varying schedules and working hours showcases their commitment and expertise in handling responsibilities. It is essential to recognize the impact of stress on their well-being and job performance, and therefore necessary to implement strategies that focus on stress management, creating supportive work environments, and providing access to mental health resources. According to the research conducted by Jung, Jung, S., and Choi in 2017, flight dispatchers face significant challenges regarding fatigue and stress. However, the study also presents a positive outlook on the situation, highlighting the potential for improvement. By addressing work-related factors, optimizing schedules, and creating a supportive work environment, the well-being and safety of aviation can be enhanced.

3.2. Factors affecting the effectiveness of workload balancing: Work Environment, Decision Making, Professional Adaptation, Communication

Table 6: Factors Affect the Effectiveness in Workload Balancing of Flight Dispatchers at the Airport in Pasay City

Factors Affecting Workload Balancing	SD	Mean	Remarks
Work Environment			
1. Having a healthy work environment enables me to improve my job because I don't have any distractions hindering my work.	0.41485	3.79	Strongly Agree
2. I find fulfillment in my work; having a good work environment allows us to be more efficient in decision-making.	0.46431	3.71	Strongly Agree
Composite Mean	0.32969	3.75	Strongly Agree
Decision-Making			
1. The management allows me to enhance my decision-making skills and provides me with motivation to do my job even better.	0.76139	3.33	Strongly Agree
2. I can provide decision-making that plays an essential role as a flight dispatcher despite being a complex task due to constant changes requiring quick adaptation.	0.57578	3.63	Strongly Agree
Composite Mean	0.63381	3.48	Strongly Agree
Professional Adaptation			
1. I easily adjust and adapt to my new professional environment.	0.58977	3.50	Strongly Agree
2. I can adjust to new work settings and perform my job obligations to the best of my ability.	0.48154	3.67	Strongly Agree
Composite Mean	0.48154	3.58	Strongly Agree
Communication			
1. I am excellent at supporting efficient communication within my work setting, ensuring the delivery of crucial information, and keeping everyone informed.	0.58359	3.58	Strongly Agree
2. Effective communication is a critical component of aviation operations, and it is excellent to know you are skilled in this area.	0.41485	3.79	Strongly Agree
Composite Mean	0.46186	3.69	Strongly Agree
Grand Mean	0.48	3.63	Strongly Agree

Legend: 3.26 - 4.00 Strongly Agree; 2.51 - 3.25 Agree; 1.76 - 2.50 Disagree; 1.00 - 1.75 Strongly Agree

As shown in the table above, the factors affecting the effectiveness in workload balancing of flight dispatchers at the Airport in Pasay City resulted in a grand mean of 3.63 suggesting a strongly agreed response. Furthermore, all the statements presented above are interpreted as strongly agreed. The highlighted highest composite mean of 3.75 was *Work Environment* followed by 3.69 for *Communication*, 3.58 for *Professional Adaptation,* and the lowest composite mean of 3.48 for *Decision-Making,* all interpreted as a strongly agreed response.

Overall results suggest that there is a strong positive level of agreement and approval on the factors affecting the effectiveness in workload balancing of flight dispatchers at the Airport in Pasay City. The factors related to the workload balancing effectiveness of flight dispatchers at the Pasay City Airport showed no significant difference; all individual statements strongly agreed with the survey. It indicates a positive correlation to the research and a positive view of the statements relating to the survey of workload balancing among flight dispatchers at the airport in Pasay City. It emphasizes the importance of being efficient and precise in terms of professional adaptation and work environment in the aviation industry despite the factors. (Surkov, *et al*., 2021) [20] Flight dispatchers need to communicate with the other departments in the field to ensure the safety of the passengers and aircraft (Alharasees, *et al*., 2022) [24] Recognizing the impact of decision-making and acknowledging the importance of flight dispatcher's ability can make the aviation industry more efficient. (Xiong & Hansen, 2013) [22].

3.3. Significant difference in the effectiveness of workload balancing in terms of work environment, decision making, professional adaptation, and communication and when respondents are grouped according to their profile

Table 7: Significant difference in the Effectiveness of Workload Balancing in terms of Work Environment, Decision Making, Professional Adaptation and Communication when respondents are grouped according to their Age Profile

Effectiveness of Workload Balancing	Group	SD	Mean	P Value	Remarks
Work Environment	21-25 y/o	0.25877	3.81	0.275	*Not significant*
	26-30 y/o	0.34960	3.70		
	31-35 y/o	0.00000	4.00		
	<35 y/o	0.50000	3.50		
Decision Making	21-25 y/o	0.37201	3.69	0.514	*Not significant*
	26-30 y/o	0.75462	3.25		
	31-35 y/o	0.86603	3.50		
	<35 y/o	0.57735	3.67		
Professional Adaptation	21-25 y/o	0.37796	3.75	0.359	*Not significant*
	26-30 y/o	0.55025	3.45		
	31-35 y/o	0.28868	3.83		
	<35 y/o	0.57735	3.33		
Communication	21-25 y/o	0.37201	3.81	0.649	*Not significant*
	26-30 y/o	0.55025	3.55		
	31-35 y/o	0.28868	3.83		
	<35 y/o	0.57735	3.67		

If p – value > 0.05 Level of Significance: Accept Ho: Not Significant

As shown in the table above, significant difference in the effectiveness of workload balancing in terms of work environment, decision making, professional adaptation, and communication when respondents are grouped according to their age profile resulted to an F value of 0.558 - 1.133 with a not significant p-value of 0.275 - 0.649 > 0.05 level of significance. Since p values are greater than 0.05 level of significance, therefore accept null and reject alternative hypotheses.

Overall results imply that there is no significant difference in the effectiveness of workload balancing in terms of work environment, decision-making, professional adaptation, and communication when respondents are grouped according to their age profile. Thus, the average age range of the participants in the presented data appears to be consistent, with no significant differences among them. This similarity in age across the participants suggests a commonality in their experiences and perspectives. It is captivating that individuals from various age groups are all connected and in agreement on questions related to effective workload balancing. This alignment is particularly visible in areas such as work environment, decision-making processes, professional adaptation, and communication. This consistency in responses not only emphasizes the importance of the issues addressed but also demonstrates a common knowledge and opinion within the group about the key factors of maintaining an effective balance in the work environment. The level of consistency among different age groups reveals that there are possibly common challenges and effective ways of handling the complexities of workload dynamics in various work environments. (Surkov, *et al.*, 2021) [20].

Table 8: Significant difference in the Effectiveness of Workload Balancing in terms of Work Environment, Decision Making, Professional Adaptation and Communication when respondents are grouped according to their Sex Profile

Effectiveness of Workload Balancing	Group	SD	Mean	P Value	Remarks
Work Environment	Male	0.30917	3.79	0.318	*Not Significant*
	Female	0.37796	3.64		
Decision Making	Male	0.66144	3.50	0.808	*Not Significant*
	Female	0.60749	3.43		
Professional Adaptation	Male	0.39991	3.74	0.012	*Significant*
	Female	0.48795	3.21		
Communication	Male	0.35872	3.76	0.209	*Not Significant*
	Female	0.64550	3.50		

If p–value> 0.05 Level of Significance: Accept Ho: Not Significant

As shown in the table above, a significant difference in the effectiveness of workload balancing in terms of work environment, decision making, professional adaptation, and communication when respondents are grouped according to their sex profile resulted in a t value of 0.246 - 2.725 with a p-value of 0.012 - 0.808. A significant difference was revealed in Professional Adaptation when respondents were grouped according to their sex profile as confirmed by the p-value of 0.012 < 0.05 level of significance. Overall results imply that there is a significant difference in the effectiveness of workload balancing in terms of professional adaptation when respondents are grouped according to their sex profile. Workload balancing within the realm of flight dispatchers reveals that, when considering their work environment, decision-making processes, and communication practices, they share commonalities in navigating their job responsibilities. In the aviation industry, both male and female flight dispatchers exert a notable influence on their chosen work environment, with each sex playing a significant role in shaping their professional landscape. When it comes

to decision-making, it shows that there is a lack of significant differences in the critical thinking processes of dispatchers based on sex, highlighting equality in their contributions to the aviation industry. Additionally, when examining how communication varies with the sex of dispatchers, it becomes evident that sex differences have similar effects on assessing clarity and coordination, aiming to improve efficiency in the aviation industry. This reinforces the idea that irrespective of sex, flight dispatchers collectively strive for effective communication to enhance their operational efficiency and overall performance in the aviation sector.

According to (Casebolt, 2023) [5] an understanding of what it means to be a gender minority in the aviation industry while making the necessary adjustments to ensure an effective, gender-diverse aviation industry. That allows sex variations of dispatchers to cope in their newly chosen work field but also to improve themselves with career advancement and self-development. In addition, decision-making refers to the ability of flight dispatchers to think precisely and efficiently without the basis depending on their sex but with pure skills and understanding. While this also could be deemed to be a pure knowledge requirement, understanding leads to decision-making and judgment about what is right or wrong (Galy, Cariou, & Melan, 2012) [7] to make dispatching professions effective and efficient in the aviation industry.

Understanding more about both sexes regarding their communication skills could make the aviation industry more open to various factors of immense expertise in the airline industries (Al Harasees et al., 2022) discussed the consequences of poor communication can be grave and perhaps fatal. Incidents, mishaps, and events regularly indicate communication breakdowns are common mistakes in the aviation industry.

Professional adaptation in the aviation industry highly recognizes the importance of gender diversity in terms of distribution in the efficient roles of flight dispatchers. Challenges mostly occur on how a dispatcher's sex defies the work and life balance when sudden phenomena happen. This could be visible when one individual experiences unforeseen circumstances that could highly affect their work performance. Examples can be described as changes in new work settings and the best performance to carry out work obligations. According to (Surkov, et al., 2021) [20] these tasks must be carried out quickly, firmly, and exceedingly precisely. The combination of all these working circumstances makes it particularly difficult for professionals to adapt. Changes in consideration of work and life balance when a flight dispatcher's sex limits performance according to the flexibility of work arrangements, parental leave, and maternal leave of a dispatcher working on the field.

Table 9: Significant difference in the effectiveness of workload balancing in terms of work environment, decision making, professional adaptation and communication when respondents are grouped according to their Work Shift Profile

Effectiveness of Workload Balancing	Group	SD	Mean	P Value	Remarks
Work Environment	Day shift	0.35355	3.67	0.349	Not Significant
	Night shift	0.31623	3.80		
Decision Making	Day shift	0.54645	3.61	0.442	Not Significant
	Night shift	0.68661	3.40		
Professional Adaptation	Day shift	0.39087	3.56	0.832	Not Significant
	Night shift	0.54116	3.60		
Communication	Day shift	0.35355	3.83	0.239	Not Significant
	Night shift	0.50709	3.60		

If p – value > 0.05 Level of Significance: Accept Ho: Not Significant

As shown in the table above, a significant difference in the effectiveness of workload balancing in terms of work environment, decision making, professional adaptation, and communication when respondents are grouped according to their work shift profile resulted to a t-value of -0.214 - 1.210 with a not significant p-value of 0.239 - 0.832 > 0.05 level of significance.

Since p values are greater than 0.05 level of significance, therefore accept null and reject alternative hypotheses.

Overall results imply that there is no significant difference in the effectiveness of workload balancing in terms of work environment, decision-making, professional adaptation, and communication when respondents are grouped according to their work shift profile.

Based on the responses of the respondents and from flight dispatchers' task balance, it seems to show a striking resemblance regardless of their work shifts day or night. Even with the natural differences between day and night operations in the aviation sector, these workers appear to have similar workloads during their shifts. Certain factors, including the work environment, the need for professional adaptation, the need to make decisions, and the need for communication, seem to be constantly demanding and interesting during

various shifts. This finding implies that there is little difference in the workload distribution between day and night shifts for aircraft dispatchers. The job's inherent requirements for constant attention to detail may be the cause of the apparent equilibrium in workload distribution between these different timeframes. Enhancing the skills for decision-making is necessary because it is a crucial requirement for being a flight dispatcher. Different airlines organize their flights differently as a service provider and as a user of the air transportation system, and each has unique internal business objectives. Having these needed skills enables decision-making to be more beneficial to customer needs (Xiong & Hansen, 2013) [22]. Flight dispatchers have professional duties and responsibilities needed for a flight to be commenced. These tasks demand fast, confident, and on-point execution, creating challenges for the adaptation of young professionals. (Surkov, Surkova, & Lomakina, 2021) [20]. Poor communication can be life-threatening, that's why it is commonly related to incidents, accidents, and unwanted scenarios. Automated systems greatly lighten the workload during flight operations and also reduce misunderstandings in aviation communication (Alharasees et al., (2022) [24].

Table 10: Significant difference in the effectiveness of workload balancing in terms of work environment, decision making, professional adaptation and communication when respondents are grouped according to their Position Profile

Effectiveness of Workload Balancing	Group	SD	Mean	P Value	Remarks
Work Environment	AFD	0.31623	3.80	0.349	Not Significant
	GAFD	0.35355	3.67		
Decision Making	AFD	0.63994	3.47	0.904	Not Significant
	GAFD	0.66144	3.50		
Professional Adaptation	Day shift	0.47056	3.60	0.832	Not Significant
	Night shift	0.52705	3.56		
Communication	AFD	0.41690	3.73	0.542	Not Significant
	GAFD	0.54645	3.61		

If p – value > 0.05 Level of Significance: Accept Ho: Not Significant

As shown in the table above, a significant difference in the effectiveness of workload balancing in terms of work environment, decision making, professional adaptation, and communication when respondents are grouped according to their position profile resulted to a t value of -0.122 - 0.957 with a not significant p-value of 0.349 - 0.904 > 0.05 level of significance. Since p values are greater than 0.05 level of significance, therefore accept null and reject alternative hypotheses.

Overall results imply that there is no significant difference in the effectiveness of workload balancing in terms of work environment, decision-making, professional adaptation, and communication when respondents are grouped according to their position profile.

Hence, General Aviation and Airline Flight Dispatchers agree at certain points wherein these factors do not affect their workload balancing. General Aviation and Airline Flight dispatchers perform a wide range of tasks in the flight information service, including flight planning, flight parameter computation, flight control, and assisting the crew in getting ready for the journey. As stated by Surkov *et al.* (2021) [20] these jobs need to be completed swiftly, strongly, and extremely accurately. In addition, factors such as communication need also to be considered and must be held precisely as it contributes to the flight operations efficiency and performance unless communication breakdowns will appear and can have serious, even deadly, repercussions communication problems are frequently revealed by incidents, mistakes, and happenings (Alharasees, *et al.*, 2022) [24]. Work Environment and Decision-Making strategies also play an important role in how Flight Dispatchers in General Aviation and Airline effectively balance their work in the operations, as stated by (Jimenez Serrano & Kazda, 2017) [10], OCCs consist of several operating staff members, preservation workers, and aircraft dispatchers. Nonetheless, there's a rising tendency among facilities that manipulate data to include other important departments, like ground operations, and the commercial department, to enhance decision-making processes.

3.4. Factors affecting the handling of complex task of workload balancing: natural disasters, changes in weather conditions

Table 11: Flight dispatchers handled the complex task of workload balancing when faced with unforeseen circumstances

Unforeseen Circumstances Faced	SD	Mean	Remarks
Natural Disasters			
1. I periodically checked the forecast for things like thunderstorms in case there should be any weather-related issues during the flight.	0.49454	3.63	Strongly Agree
2. I balance my job as a flight dispatcher and try to stay under the permitted time unless there are unforeseen issues like natural disasters.	0.71728	3.42	Strongly Agree
Composite Mean	0.54132	3.52	Strongly Agree
Changes in Weather Condition			
1. I am capable enough to determine unpredictable weather patterns and must perform an alternate route ahead of time to avoid any unforeseen accident.	0.44233		Strongly Agree
2. I take weather predictions into account while planning aircraft routes that may have an impact on flight operations.	0.64690		Strongly Agree
3. I am informed that weather changes can impact how I plan schedules, with implications for aircraft operations.	0.41485		Strongly Agree
Composite Mean	0.43554	3.72	Strongly Agree
Grand Mean	0.49	3.62	Strongly Agree

Legend: 3.26 - 4.00 Strongly Agree; 2.51 - 3.25 Agree; 1.76 - 2.50 Disagree; 1.00 - 1.75 Strongly Agree

As shown in the table above, the flight dispatchers handled the complex task of workload balancing when faced with unforeseen circumstances resulting in a grand mean of 3.62 suggesting a strongly agreed response. Furthermore, all the statements presented above are all interpreted as strongly agreed. The highlighted highest composite mean of 3.72 was Changes in Weather Condition while the least composite mean of 3.52 for Natural Disasters, all interpreted as a strongly agreed response.

Overall results suggest that there is a strong positive level of agreement and approval on the flight dispatchers handled the complex task of workload balancing when faced with unforeseen circumstances. This shared their commitment to putting safety first and ensuring operational efficiency in the face of unexpected circumstances as stated by (Casadevall *et al.*, 2017) [4] flight dispatchers need to be aware of the proper routes and locations to avoid any repercussions because emergencies and unanticipated events can happen at any

time, because flight dispatchers must make sure that everyone involved in the aviation industry is safe, this could potentially result in modifications to the maximum workloads they can achieve. These attitudes and actions make a significant

contribution to the overall safety and reliability of air travel, demonstrating the respondent's commitment to limiting the impact of natural disasters and changes in weather conditions in the aviation field.

3.5. Perception of the respondents on how does sex impacts the effectiveness of workload balancing in the professional adaptation of flight dispatches

Table 12: Thematic analysis on the perception of the respondents on how does sex impacts the effectiveness of workload balancing in the professional adaptation of flight dispatchers

Master Themes	Superordinate Themes
How does gender impact the job performance of flight dispatchers in the context of workload balancing for scheduled domestic flights?	Experience Maternity

Informant 1:
"…Actually, the main factor when it comes to gender in workload balancing, especially in the entire dispatch department, is when they reach the period of *maternity* and childbirth."
Informant 2:
"…I've had an *experience* when we had a few months where we were all women in the operations so I think there is no difference."
 Informant 3:
"…in my five years of *experience* in the field gender usually is not a factor as I mentioned in my previous answer, all flight dispatchers undergo comprehensive ground schooling to be prepared for certain kinds of situations."
Table 12 displays the Master Themes comprehended by the Interview Questions answered by the Interviewees and the Super Ordinate Theme represents the primary points to be accurate enough with their responses. One interviewee highlighted *maternity* as one of the factors influencing the variance in flight dispatchers' answers on the provided survey questionnaires. When it comes to workload balancing, the only significant aspect that can impact a flight dispatcher's performance on the job is when the female flight dispatcher enters her maternity and childbirth stage. In terms of working in the aviation field, this scenario of having a pregnancy of female flight dispatchers is natural but it can have significant effects on the whole operations of the airline such as her job performance or career progression. In light of the large share of care work that women still carry out, a woman working in civil aviation may need to go through several interruptions and re-entries to her job, which is likely to have a significant impact on her career progression. Interruptions commonly occur when workers take on family responsibilities, for example after childbirth or adoption (Seligson, 2019)
Meanwhile, the two interviewees emphasized that, based on their personal experiences, gender does not impact how effectively flight dispatchers manage their duties. They further explained that the interviewees undergo ground training for every activity they are engaged in and might potentially encounter while performing their duties. Generally, the sex of the flight dispatchers does not appear to play a role in workload balance, particularly in domestic scheduled flights. Flight dispatchers, in general, manage their duties with efficiency and effectiveness, ensuring they comply with the challenges they face. They find solutions in their work by putting their experience and expertise into practice. It also implies that applying their knowledge and skills to work in making decisions and dealing with problems is personally helpful as stated by Siraya Buaphong (2015).

4. Discussion
4.1. Conclusions
Based on the results and analysis, the following were concluded:
1. Flight dispatchers play an essential role in ensuring the safety and efficiency of flights. However, their demanding job can take a toll on their psychological well-being due to the high-pressure environment, and irregular work hours. Despite facing these different challenges, their commitment remains strong. By prioritizing their mental health and offering support, flight dispatchers can continue their work while enjoying a positive and fulfilling workplace. These measures are important in safeguarding the mental health of flight dispatchers, thereby enhancing their overall job satisfaction and performance.
2. Flight dispatchers should manage their workloads in a variety of ways, and this requires a range of variables in the workplace to interact effectively. Workload distribution management is directly related to competent decision-making, professional flexibility, and effective communication. A workplace that is suitable for operating and includes progressive decisions and encouraging structures of operation is vital for improving the dispatcher's capacity to handle jobs effectively. Experience, training, and having access to updated information all contribute to improving decision-making abilities, enabling dispatchers to act quickly and intelligently. Continuous learning and the ability to adjust according to shifting demands and aviation principles are essential components of professional adaptability. Also, effective communication is crucial for optimized operations and handling crises, among the dispatchers. Putting things easily, attaining the best possible workload balance for flight dispatchers demands an integrated plan that involves all of these aspects, which will eventually improve safety, effectiveness, and overall performance in the field.
3. The results indicate a strong consensus among flight dispatchers on the effectiveness of workload balancing across the different parameters, reflecting a universal recognition of the importance of a supportive work environment, robust decision-making processes, adaptability in professional settings, and communication. This consensus extends across different profiles, suggesting that these factors are universally valued irrespective of age, work shift, and position. However, a notable finding of this research is the significant difference in professional adaptation between

male and female dispatchers. This highlights the nuanced ways in which workload balancing and professional challenges are experienced differently based on gender, underscoring the need for gender-sensitive approaches in managing workload in the aviation sector. This expounds on the critical elements that contribute to effective workload management among flight dispatchers. It underscores the importance of a conducive work environment, effective communication channels, and adaptive skills in ensuring efficient operations in high-stakes industries like aviation. Furthermore, the study's insights into the gender-specific experiences of professional adaptation call for more inclusive and diverse strategies in workforce management, promoting equal opportunities and support for all flight dispatchers irrespective of their gender. This study not only contributes to academic knowledge in the field but also has practical implications for policy and workplace practices in the aviation industry, aiming to enhance overall efficiency and flight dispatchers' satisfaction.

4. The findings highlight the dispatchers' ability to anticipate unforeseen circumstances, showcasing their commitment to their work. Despite the arrival of disasters, they remain prepared and capable of changing schedules. The respondents' top priorities, as revealed in the survey, include efficiency and safety in aviation. Flight dispatchers emerge as key contributors to the overall safety and reliability of air travel. Their acts show that they are all committed to their job even though they cannot control the different phenomena they experienced such as changes in weather conditions that may affect their flight plans.

5. The statements of the respondents collectively suggest that while events like maternity temporarily affect workload balancing due to female employees' absences or altered schedules, the overall effectiveness of workload balancing among flight dispatchers seems more closely tied to comprehensive training, skills, and adaptability rather than the sex of flight dispatchers. Gender diversity exists within the field, yet its influence on workload balancing appears secondary to the professional capabilities and preparedness of dispatchers. Therefore, the key to effective workload balancing lies more in the abilities and training of individuals rather than their gender.

4.2. Recommendations
Based from the discussed conclusions, the recommendations are as follows:
1. The Workload balancing affects the psychological well-being of flight dispatchers at the Airport in Pasay City:
   a. Provide training that helps to assess stress management and discuss coping strategies to differentiate the challenges faced by female and male flight dispatchers working in the field. It can consist of seminars about workload time management and work-life balance.
   b. Arrange regular health check-ups for flight dispatchers working on the field monthly to monitor and facilitate their mental and physical health concerns thoroughly.
   c. Conduct more studies about a deeper understanding of gender analysis within flight dispatchers to distinguish their experiences of how male and

female dispatchers experience workload distribution, coping mechanisms, stress, and work-life management.

2. Factors affecting the effectiveness of workload balancing:
   a. Work Environment
   b. Decision-Making
   c. Professional Adaptation
   d. Communication
a. To improve their adaptability while performing their jobs. Acknowledging their actions is essential for success in a constantly shifting industry. Achieving this goal can significantly help by participating in comprehensive training courses that replicate everyday circumstances, complete with sudden changes and unforeseen problems. Future and present flight dispatchers can enhance their decision-making abilities, improve their problem-solving skills, and develop a competitive attitude by actively engaging in these training sessions. In addition to ensuring professional and personal development, this dedication to continuous learning and adaptability also enhances the general effectiveness and safety of flight operations.
b. To make competent and fair decisions by implementing strict training initiatives, to have a positive and diverse workplace culture. It is essential to establish clear procedures that provide ideas and make decisions to improve these training programs. Transparency in decision-making processes encourages not only efficiency but also open communication inside the company. This approach guarantees that everyone is on the same page, encouraging a collaborative environment in which different points of view are valued.
c. Look for the most recent studies on workload balancing for flight dispatchers for upcoming researchers hoping to work in flight dispatching. Gaining a thorough understanding of flight operations, including the roles and responsibilities of a flight dispatcher, is necessary for success in the aviation industry. Establish a solid foundation for oneself to handle these responsibilities with competence. Encourage cooperation and interaction between coworkers to create a positive workplace environment.

3. Is there a significant difference in the effectiveness of workload balancing in terms of work environment, decision making, professional adaptation, and communication, and when respondents are grouped according to their profile?
   a. Emphasize Continuous Professional Development: Flight dispatchers should engage in ongoing training and development programs focusing on enhancing decision-making skills, communication proficiency, and adaptability in the work environment. This continual learning approach will not only keep them abreast of the latest industry standards and practices but also equip them with the skills necessary to manage their workload effectively and respond to the dynamic demands of the aviation industry.
   b. Implement Gender-Inclusive Policies: Given the significant difference in professional adaptation based on gender, aviation companies should develop and enforce gender-sensitive policies. These

policies should aim to create an inclusive work environment that acknowledges and addresses the unique challenges faced by different genders. This could include flexible working arrangements, mentorship programs, and targeted support initiatives that cater to the diverse needs of their workforce, thereby enhancing overall employee satisfaction and productivity. Foster a Supportive Work Environment: Organizations should prioritize creating a work environment that supports effective communication, collaborative decision-making, and employee well-being. This can be achieved through regular team-building activities, open channels of communication between staff and management, and the provision of resources and tools necessary for efficient workload management. A supportive work environment not only improves employee morale but also contributes to better job performance and reduced turnover rates

c. Conduct Longitudinal Studies: Future research should consider longitudinal studies to examine the long-term effects of workload-balancing strategies on flight dispatchers. This would provide deeper insights into the sustainability of current practices and the evolving needs of dispatchers over time. Additionally, comparative studies across different airports or countries could offer a broader perspective on how cultural and operational differences impact workload management in the aviation industry.

4. How do flight dispatchers handle the complex task of workload balancing when faced with unforeseen circumstances such as
   a. Natural Disasters
   b. Changes in Weather Conditions?
   c. In case of unforeseen events, when the predictability of weather changes is ahead, always prioritize the safety of the passengers before dispatching a certain flight. Always have a backup plan if there is a possibility of a flight operation that will be diverted. Keep an open line of communication for the airline crew and airport staff. Simulations and training in handling unforeseen events or complex situations must be implemented for new flight dispatchers.
   d. Always comply with the rules and regulations that are handed down by our government authority in the field of aviation. The company must keep an open line of communication with the airport authority and government authority in case something unexpected happens in the flight operations.
   e. To find out if workload balance is important to flight dispatchers in their jobs, start any research linked to this subject with a review of the literature, then go on to the observations and experiences from the field.

5. Based on the perception of the respondents, how does the sex of the respondents impact the effectiveness of workload balancing in the professional adaptation of flight dispatchers?
   a. Create an environment at work where people of all genders are supported. Establish an atmosphere that values cooperation, mutual respect, and a feeling of

connection so that flight dispatchers can succeed and grow in their careers. Advocate awareness of unconscious discrimination and gender-related biases by putting inclusiveness and diversity training programs into action. Provide training to all personnel, including flight dispatchers, to promote a more diverse place to work.

b. Establish an environment at work that embraces diversity and encourages inclusiveness. It is essential to make sure that rules, procedures, and cultural norms support transparent interaction, cooperation, and a feeling of inclusivity among flight dispatchers, to showcase easier adjustments to their professional adaptation.

c. Investigate the Impact of Technology on Workload Management: Future research should explore how advancements in technology can further aid in workload balancing among flight dispatchers. This could include studies on the effectiveness of new software tools, automation, and AI in enhancing operational efficiency and decision-making. Additionally, research into the long-term effects of these technological implementations on job satisfaction and performance could provide valuable insights for the industry.

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