



Article



# Reconfiguration of the Job Demands-Resources Model in Crisis Contexts: A Qualitative Study of Flight Attendants

Ahyun Nam<sup>1</sup> and Insin Kim<sup>2,\*</sup><sup>1</sup> Department of Airline Service Management, Silla University, Busan 46958, Republic of Korea<sup>2</sup> Department of Tourism and Convention, Pusan National University, Busan 46241, Republic of Korea\* Correspondence: [insinkim@pusan.ac.kr](mailto:insinkim@pusan.ac.kr); Tel.: +82-51-510-3005**How To Cite:** Nam, A.; Kim, I. Reconfiguration of the Job Demands-Resources Model in Crisis Contexts: A Qualitative Study of Flight Attendants. *Journal of Marketing and Management Insight* 2026, 1(1), 5. <https://doi.org/10.53941/jmmi.2026.100005>

Received: 5 April 2026

Revised: 30 April 2026

Accepted: 6 May 2026

Published: 8 May 2026

**Abstract:** This study examines how job demands and job resources are structured in a crisis context by focusing on flight attendants during the COVID-19 pandemic. Drawing on the job demands resources model, this study adopts a qualitative research design to explore how work environments are reshaped under conditions of high uncertainty and risk. Data were collected through in-depth interviews with flight attendants and analyzed using an inductive coding approach. The findings show that job demands emerged across three levels, namely industry, organizational, and customer, and operated simultaneously, creating cumulative pressure on employees. In contrast, job resources were primarily concentrated at the industry and organizational levels and were largely limited to safety and operational support. As a result, job resources provided only partial buffering effects against intensified job demands. The study extends the job demands resources framework by demonstrating that job demands and job resources in crisis contexts are multi-level and unevenly distributed, rather than confined to organizational boundaries. It further highlights the importance of external conditions, such as regulatory policies and customer behavior, in shaping employee experiences. The findings provide theoretical implications for extending the JD-R model to crisis contexts and offer practical insights for managing frontline employees in high-risk environments.

**Keywords:** job demands-resources model; crisis contexts; COVID-19; flight attendants; qualitative study; multi-level dimensions; job demands; job resources

## 1. Introduction

Flight attendants were identified as one of the non-medical occupational groups facing the highest risk of COVID-19 infection [1]. They work in confined spaces, interact directly with others, and are exposed to potential infection, while their duties cannot be performed remotely. For this reason, specific job-related interventions are required to protect these employees. In addition, flight attendants are responsible for both cabin safety and customer service, and they carry greater responsibility than many other frontline service employees [2]. Their tasks include checking emergency equipment and onboard facilities, loading and verifying service items, and ensuring passenger safety and comfort, all of which expose them to fatigue and job stress. Flight attendants are service employees who perform emotional labor while interacting with passengers [3]. Prior research has shown that flight attendants are routinely exposed to demanding working conditions, including emotional labor, customer confrontation, irregular shifts, and sustained pressure to maintain safety and service quality [4–7]. Under COVID-19, these existing demands did not disappear. They were compounded by infection risk, changing safety procedures, employment uncertainty, and intensified passenger management. Studies in the airline context have examined COVID-19 perceived risk, job insecurity, satisfaction, turnover intention, organizational citizenship behavior,



**Copyright:** © 2026 by the authors. This is an open access article under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

**Publisher's Note:** Scilight stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.

vertical communication, and non-pharmaceutical interventions among flight attendants [8–10]. However, this line of research has mainly focused on specific outcome variables and relational mechanisms. It has provided less clarity on how the broader work environment itself was reorganized under crisis conditions. In this context, organizational support becomes a critical factor. When organizational support is limited, employees are more likely to experience negative emotions and increased stress [11]. In contrast, strong organizational support contributes to better mental health [12,13] and helps employees overcome adversity through increased commitment and performance [14–16]. Additionally, job resources such as autonomy in scheduling and opportunities for skill development can enhance motivation and improve performance [3,17]. Previous studies on organizational support have mainly identified factors that produce positive effects under normal working conditions. However, they provide limited insight into the types of support required under unexpected crisis situations. This study therefore seeks to identify job demands and job resources experienced by flight attendants during the COVID-19 pandemic. To systematically understand these work conditions, a theoretical framework is required.

The Job Demands-Resources (JD-R) model offers a useful framework for examining these work conditions. Bakker & Demerouti [18] argue that job demands are physical, psychological, social, or organizational aspects of work that require sustained effort and are associated with physiological or psychological costs, whereas job resources are aspects of work that help employees achieve work goals, reduce demands and their associated costs, and stimulate learning and development. The model further proposes two underlying processes: a health-impairment process, in which chronic demands deplete employees' energy and contribute to strain, and a motivational process, in which resources support engagement and performance. One of the strengths of the JD-R model is that it does not assume the same demands and resources across occupations; rather, it allows occupation-specific conditions to be identified within a broader conceptual structure. Existing JD-R research has been developed in relatively stable organizational settings and has concentrated on job or organizational characteristics within the conventional boundary of the workplace. Crisis conditions such as international infectious disease outbreaks raise a different problem. Studies have begun to acknowledge that crisis contexts such as COVID-19 fundamentally alter the structure of job demands and resources rather than merely intensifying existing ones. In these contexts, employees' work conditions are formed not only by internal organizational practices but also by regulatory intervention, public health protocols, and shifting customer behavior.

Agarwal's qualitative study during COVID-19 is important because it shows that crisis conditions may reshape demands and resources in ways that extend beyond the immediate organization and require a broader human resource management perspective [19]. This issue is particularly important in the airline industry, where pandemic response involved not only individual protective behavior but also organizational and governmental interventions [9]. Research on COVID-19 in the airline industry shows that risk perception was tied to protective behavior, job insecurity, and job attitudes. These findings suggest that crisis-related work conditions are not adequately captured when demands and resources are treated only as fixed job-level attributes. Therefore, a crisis-sensitive JD-R framework requires re-specification from an HRM perspective.

The present study addresses this issue by identifying and conceptualizing the job demands and job resources experienced by flight attendants in a crisis context through qualitative inquiry. This approach is consistent with prior JD-R work, which has emphasized the value of exploratory qualitative analysis for identifying context-specific demands and resources before imposing standardized measurement structures [18,20]. The purpose of this study is to reconstruct the JD-R model for crisis contexts by examining how demands and resources were configured under an international infectious disease environment. This study makes two contributions to the literature. First, it provides an empirical account of how work environments are restructured under crisis conditions. Second, it extends the JD-R framework by introducing a multi-level perspective on job demands and resources in the context of a global health crisis.

## 2. Literature Review

### 2.1. Job Demands–Resources (JD-R) Model

The Job Demands–Resources (JD-R) model is an organizational theory derived from job stress research and serves as an integrative framework for explaining both job burnout and work engagement [21]. Job demands refer to the physical, psychological, social, or organizational aspects of work that require sustained physical or mental effort and are therefore associated with physiological and psychological costs [22]. In contrast, job resources refer to aspects of work that reduce these costs and facilitate the achievement of organizational goals, while also promoting employees' growth, learning, and development [18]. Job demands represent energy-consuming aspects of the work context, including work pressure, task complexity, and role ambiguity. Job resources, on the other hand, refer to aspects of the work environment that help employees cope with job demands, satisfy basic

psychological needs, and achieve work-related goals [18,23]. Typical job demands include time pressure, workload, role conflict, and role ambiguity, whereas job resources include social support, autonomy, task significance, and opportunities for development [24]. The health impairment process suggests that high job demands exhaust employees' mental and physical resources, leading to strain and negative health outcomes. The motivational process suggests that job resources promote engagement, commitment, and performance [20]. In addition, job resources may reduce the negative impact of job demands, although this buffering effect depends on the type and level of both demands and resources. Bakker & Demerouti [18] further demonstrated that job resources interact with job demands by mitigating the risk of burnout associated with high job demands. A key feature of the JD-R model is its flexibility. Job demands and resources are not fixed categories but vary across occupations and contexts. For example, emotional demands may be central in service roles, while cognitive demands may be more relevant in technical jobs. This flexibility allows the model to be applied in diverse work settings and to incorporate context-specific factors. The model also allows job demands and resources to operate at different levels. Job resources may exist at the organizational level, such as pay or job security, at the interpersonal level, such as supervisor support, or at the task level, such as autonomy and feedback [20]. This multi-level structure is important for understanding work environments that are influenced by external conditions.

## *2.2. Epidemic in Service Contexts*

The COVID-19 pandemic has altered working conditions across service industries, particularly in sectors characterized by direct customer interaction. In both airline and hospitality contexts, organizations experienced substantial operational disruption, including reduced demand, financial instability, and workforce restructuring [19,25]. Employees in these sectors continued to perform their roles under increased uncertainty while facing deteriorating employment conditions and heightened exposure to health risks. In the airline industry, flight attendants were directly affected, as they remained in contact with passengers and were exposed to both infection risk and job insecurity during the pandemic [8]. Research in the hospitality sector shows that crisis conditions introduced new forms of occupational stressors. These include unstable work environments, increased job demands, and labor-related practices such as unpaid leave and layoffs [26]. These conditions differ from traditional job stressors and indicate that crisis situations change the structure of work rather than simply intensifying existing demands. Empirical studies in hospitality and aviation contexts have demonstrated that crisis-induced job demands include not only workload but also health-related uncertainty and employment instability [8,26]. In the airline industry, studies on flight attendants report that pandemic-related conditions increased perceived risk, job insecurity, and psychological strain. These conditions are linked to continuous exposure to passengers, mandatory health procedures, and uncertainty regarding employment continuity [8]. At the same time, employees were expected to maintain service performance, which further increased pressure in their work environment. From a human resource management perspective, crisis conditions also change the nature of job resources.

Agarwal's qualitative study shows that HRM practices during COVID-19 extended beyond conventional organizational boundaries and included support related to employees' personal conditions [19]. The study indicates that employee well-being is influenced by both organizational resources, such as communication and leadership, and non-work-related resources, including family support. This suggests that job resources in crisis contexts are distributed across multiple domains rather than confined to the workplace. At the individual level, employee responses to crisis conditions vary. Research on flight attendants indicates that job insecurity is a central stressor during the pandemic and is associated with negative work attitudes and behaviors [8]. However, employees may respond differently depending on how they interpret and manage these conditions. Some employees engage in coping strategies such as positive reappraisal, which can reduce negative effects and sustain performance under uncertainty [10]. Therefore, pandemic conditions create a different configuration of job demands and job resources. These findings indicate that the JD-R model requires reconsideration in crisis contexts.

## **3. Methods**

### *3.1. Research Design*

This study adopts a qualitative research design to examine how job demands and job resources are experienced by flight attendants during the COVID-19 pandemic. Given the unprecedented and rapidly evolving nature of the crisis, a qualitative approach was appropriate to capture the complexity of employees' lived experiences and to identify context-specific work conditions that may not be fully captured by existing theoretical models. The study is informed by the Job Demands–Resources (JD-R) framework, which conceptualizes work environments in terms of demands that require sustained effort and resources that help individuals cope with these

demands and achieve work-related goals. Rather than testing predefined relationships, this study aims to uncover how these elements are structured and experienced in a crisis context.

### 3.2. Sample

A purposive sampling strategy was employed to recruit participants with direct experience of in-flight duties during the COVID-19 pandemic. The final sample consisted of five female flight attendants working in different airline contexts, including full-service carriers, low-cost carriers, and an international airline. Participants had between four and eight years of work experience, enabling them to reflect on both pre-pandemic and pandemic work environments. The inclusion of participants across different organizational types and hierarchical levels allowed for the identification of diverse experiences and perspectives. The sample size was determined based on the principle of data saturation. After the fourth interview, recurring themes were observed, and additional interviews did not yield substantially new insights.

### 3.3. Data Collection and Profiles of Respondents

Data were collected through semi-structured, in-depth interviews conducted between August and September 2021. The interview protocol was developed based on the JD-R framework and prior research on crisis-related work environments. The interviews covered multiple aspects of participants’ work experiences, including industry-level changes and constraints, organizational responses and work conditions, customer-related interactions, and individual perceptions such as job insecurity and career-related concerns. Each interview lasted between 60 and 80 min and was conducted through a combination of face-to-face meetings, telephone calls, and online communication platforms.

All interviews were recorded and transcribed verbatim with participants’ consent. The demographic profile of the participants is presented in Table 1. Part of the dataset used in this study was originally collected for the first author’s master’s thesis [27]. The current study extends the original work by employing a different analytical framework and addressing distinct research objectives.

**Table 1.** Profile of interview participants.

<b>Participant</b>	<b>Airline Type</b>	<b>Organization</b>	<b>Years of Experience</b>	<b>Position Level</b>
A	Full-service carrier	Korean Air	7 years	Purser
B	Full-service carrier	Asiana Airlines	8 years	Senior staff
C	International carrier	Emirates Airline	6 years	Business class
D	Low-cost carrier	Air Busan	5 years	Staff
E	Low-cost carrier	Jeju Air	4 years	Purser

The sample consisted of five female flight attendants working across different airline types, including full-service carriers, low-cost carriers, and an international airline. This variation made it possible to reflect different organizational settings and operational conditions in the data. Participants had between four and eight years of work experience, allowing them to compare their work before and during the pandemic. The sample also included both junior and senior roles, including pursers, which made it possible to capture differences across position levels. Overall, the sample provided sufficient variation in experience and work context to examine the phenomenon under study.

### 3.4. Data Analysis

Table 2 presents the coding structure and thematic development derived from the interview data.

Following an inductive coding approach, first-order concepts were extracted directly from participants’ narratives and subsequently grouped into second-order themes. These themes were further aggregated into higher-level dimensions aligned with the JD-R framework. The analysis revealed a clear multi-level structure of job demands and job resources, spanning industry, organizational, and customer domains. Notably, while job demands emerged across all three levels, job resources were predominantly concentrated at the industry and organizational levels. This asymmetry highlights the uneven distribution of demands and resources in crisis contexts

**Table 2.** Coding structure and thematic development.

Level	First-Order Concepts (Raw Data)	Second-Order Themes	Aggregate Dimensions
Industry	Frequent safety inspections, early vaccination requirements, uncertainty about government support	Regulatory pressure	Industry-level Job Demands
	Government subsidies, training opportunities during furlough	Institutional support	Industry-level Job Resources
Organization	Salary reduction, unpaid leave, layoffs, lack of crisis response strategy, unclear communication	Economic and structural instability	Organizational Job Demands
	Increased monitoring, stricter rules, role ambiguity, reduced flight hours	Work condition changes	Organizational Job Demands
	Provision of protective equipment, safety training, service simplification	Safety-oriented support	Organizational Job Resources
	Limited flexibility (e.g., secondary job allowance)	Adaptive HR practices	Organizational Job Resources
Customer	Complaints about masks and distancing, dissatisfaction with reduced services, conflict among passengers	Conflict-driven interactions	Customer-related Job Demands
	Enforcement of rules and emotional regulation	Intensified emotional labor	Customer-related Job Demands
Outcomes	Fatigue, stress, anxiety, helplessness	Psychological strain	Health Impairment Outcomes

**4. Results**

Job demands arise from three levels, namely industry, organization, and customer, and together increase the pressure experienced by employees. These demands occur at the same time and interact with each other, leading to a cumulative impact on employee wellbeing. In contrast, job resources are mainly provided at the industry and organizational levels and serve a limited buffering role. The findings indicate that these resources are restricted in scope and are largely focused on safety and risk reduction, rather than supporting motivation or development. As a result, their ability to offset the impact of job demands remains limited. Overall, the model shows that job demands in crisis situations operate across multiple levels and interact with one another, rather than being confined to the organizational level.

*4.1. Job Demands*

4.1.1. Industry-Level Demands

Industry-level job demands were primarily associated with institutional regulations and macro-environmental uncertainty. Participants reported that safety-related requirements became significantly more stringent, including frequent inspections of safety and security procedures and mandatory early vaccination due to the nature of their work. One participant noted,

*“We had to follow stricter safety protocols, and the rules kept changing without much notice.”*

This indicates how regulatory changes were experienced as externally imposed constraints requiring continuous adaptation. In addition, uncertainty surrounding government support measures, such as employment subsidies, contributed to increased anxiety. These demands were perceived as externally imposed constraints that required continuous adaptation, often without clear guidance or predictability. As such, industry-level demands functioned as systemic stressors that heightened employees’ sense of vulnerability and lack of control.

4.1.2. Organizational-Level Demands

Organizational-level demands emerged as the most critical source of stress. A recurring theme across participants was the deterioration of financial stability, reflected in reduced salaries, unpaid leave, and concerns about layoffs. Particularly, organizational demands were strongly associated with financial instability and uncertainty. One participant noted,

*“We were not receiving our full salary, and no one could clearly explain what the company was planning to do next.”*

This reflects how reduced income and unclear organizational communication contributed to job insecurity and psychological strain. Participants also emphasized the lack of clear and structured organizational responses to the crisis, which further intensified uncertainty. Changes in operational procedures, including stricter monitoring and increased workload, contributed to role ambiguity and psychological strain. Participants also described increased pressure resulting from organizational policies. One participant stated,

*“We were asked to use up all our remaining leave, even though we didn’t have a choice in the situation.”*

This suggests that employees perceived these policies as imposed rather than negotiated, which reduced their sense of control and intensified perceived job demands. The reduction in flight operations also resulted in decreased income opportunities, amplifying financial distress. These findings suggest that organizational demands directly undermine employees’ sense of security and significantly contribute to emotional exhaustion.

#### 4.1.3. Customer-Related Demands

Customer-related demands were primarily linked to intensified emotional labor. Participants reported frequent conflicts arising from passengers’ dissatisfaction with pandemic-related regulations, such as mask mandates, social distancing requirements, and reduced onboard services. Flight attendants were often required to enforce these regulations while simultaneously managing passengers’ complaints, which created tension and emotional strain. Compared to pre-pandemic interactions, these demands involved a higher degree of conflict and unpredictability, requiring more complex emotional regulation. This shift indicates that service roles during the pandemic increasingly involved conflict management rather than traditional hospitality functions. One participant explained,

*“Passengers kept complaining about masks and seating rules, and we had to enforce them while dealing with their frustration.”*

This illustrates how service roles shifted toward regulatory enforcement, increasing emotional labor and tension in passenger interactions. Participants also highlighted the burden of repeated explanations due to changes in service delivery. One participant remarked,

*“Many passengers were upset because services were reduced, and we had to explain the same thing repeatedly during the flight.”*

This suggests that operational changes increased repetitive communication demands, contributing to both workload and emotional exhaustion

#### 4.2. Job Resources

##### 4.2.1. Industry-Level Resources

Industry-level resources were limited and were primarily provided through government support measures, such as employment subsidies and training opportunities. Although these measures offered some degree of temporary relief, participants generally perceived them as insufficient and uncertain in addressing the ongoing challenges. One participant noted,

*“We did receive some government support, but it was temporary, and we were not sure how long it would last.”*

This reflects the limited and unstable nature of industry-level resources, suggesting that while institutional support existed, it did not provide a sustained sense of security for employees.

##### 4.2.2. Organizational-Level Resources

Organizational resources were mainly focused on safety and operational adjustments. Participants reported the provision of protective equipment and changes in service procedures designed to reduce health risks. One participant explained,

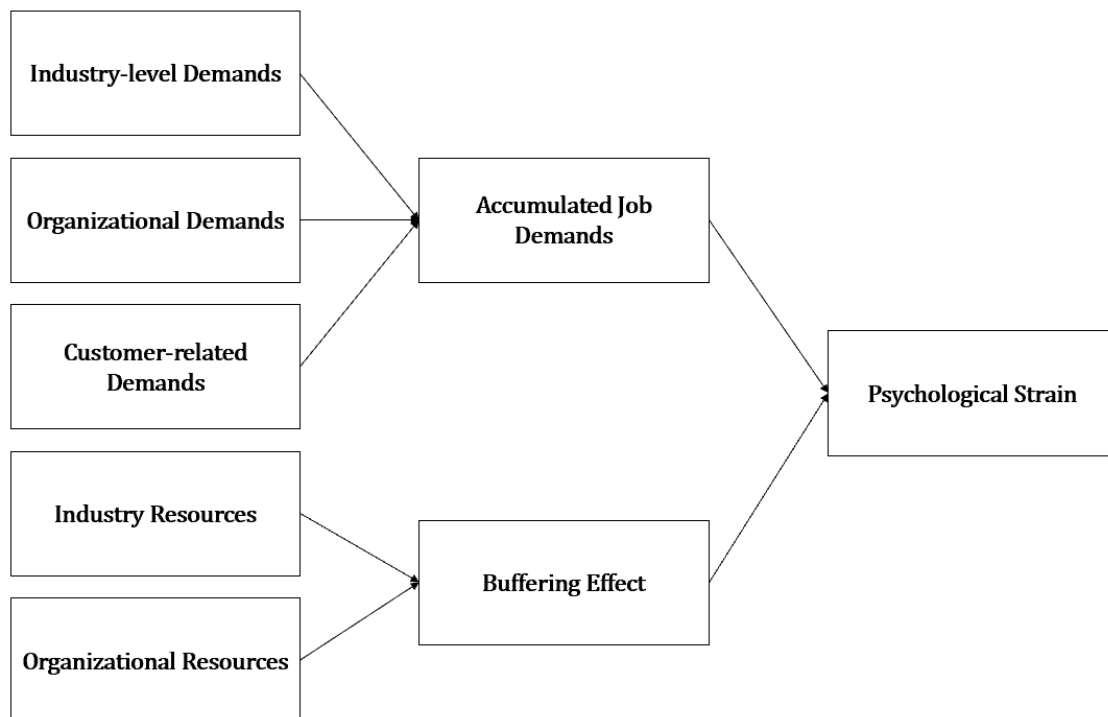
*“We were given protective equipment like masks and gloves, and the service procedures were simplified to reduce contact with passengers.”*

This indicates that organizational resources were primarily oriented toward minimizing exposure and ensuring compliance with safety regulations. Some forms of flexibility were also introduced, although their scope was limited. For example, certain participants mentioned temporary allowances for secondary employment or adjustments in work arrangements. One participant stated,

*“The company allowed us to take on temporary side jobs, but it was still difficult because our main income had decreased.”*

This suggests that while flexibility was partially provided, it was not sufficient to fully compensate for financial losses. Overall, these resources were largely defensive in nature and focused on risk reduction rather than supporting employees’ broader psychological or professional needs. The findings suggest that job demands during the pandemic operated across multiple levels and reinforced one another. In contrast, job resources were fragmented and limited in scope.

Figure 1 presents the multi-level JD-R model based on the findings.



**Figure 1.** Multi-level Job Demands-Resources Model in Crisis Context.

## 5. Discussion and Implications

### 5.1. Theoretical Implications

This study provides a comprehensive understanding of how flight attendants experience job demands and resources under crisis conditions, extending the Job Demands–Resources (JD-R) framework to a pandemic context. First, the findings reinforce and extend the core premise of the JD-R model that employee well-being is shaped by the balance between job demands and job resources [18]. While prior studies conceptualized job demands primarily as internal organizational stressors, the present study demonstrates that in crisis situations, job demands are not confined within organizational boundaries. Instead, they emerge simultaneously from multiple levels, including institutional regulations, organizational practices, and customer interactions. This multi-layered structure suggests that job demands during pandemics are more complex and intertwined than previously assumed. This study refines the JD-R model by demonstrating that the balance between demands and resources becomes distorted in crisis contexts. Importantly, this finding aligns with emerging evidence that COVID-19 has fundamentally altered working conditions by introducing new forms of uncertainty, instability, and occupational risk across industries [19]. For example, studies in hospitality and airline contexts indicate that pandemic-related stressors extend beyond traditional workload and include job insecurity, health risks, and organizational disruptions [19,26]. In particular, hotel employees experienced newly formed stressor domains such as unstable

work environments and unethical labor practices during COVID-19 [26], supporting the argument that crisis-induced demands are qualitatively different from conventional job stressors.

Second, this study contributes to the literature by highlighting the central role of risk perception as a key mechanism shaping employee responses. Consistent with protection motivation theory, prior research shows that perceived health threats motivate individuals to engage in protective behaviors [9]. In the airline context, perceived COVID-19 risk has been found to increase engagement in non-pharmaceutical interventions (NPIs), which subsequently enhance job satisfaction and customer orientation. However, the present findings suggest a more nuanced interpretation. While risk perception can trigger adaptive responses, it also simultaneously intensifies psychological strain when employees lack sufficient resources to cope with these demands. This dual effect is consistent with prior findings that perceived risk is associated not only with protective behaviors but also with anxiety, distress, and reduced well-being [8]. Thus, risk perception should be understood as a double-edged mechanism that can either facilitate adaptation or exacerbate strain depending on resource availability.

Third, this study extends the JD-R model by demonstrating that job insecurity functions as a critical mediating mechanism under crisis conditions. Prior research indicates that COVID-19 perceived risk increases job insecurity, which in turn leads to turnover intention among flight attendants [8]. Similarly, studies in hospitality contexts have shown that pandemic-induced stressors reduce job satisfaction and organizational commitment through heightened uncertainty and instability [26]. Building on this, the present findings suggest that job insecurity is not merely an outcome of job demands but a core psychological pathway through which crisis conditions influence employee attitudes and behaviors. This insight advances the JD-R framework by integrating psychological insecurity as a central linking mechanism between external shocks and employee outcomes.

Fourth, this study contributes to the literature by emphasizing the multi-level nature of job resources, particularly the critical role of institutional and governmental support. While the JD-R model traditionally focuses on organizational resources such as autonomy, feedback, and social support [18], the present findings indicate that resources during a pandemic extend beyond the organization. Empirical evidence shows that governmental-level NPIs have the strongest effect on job satisfaction among flight attendants [9], suggesting that institutional support plays a dominant role in shaping employee well-being under crisis conditions. This aligns with broader hospitality research demonstrating that external systems (e.g., HRM practices, policy interventions) significantly influence employee well-being and coping capacity during COVID-19 [19]. Thus, the findings suggest that the JD-R framework should be expanded to incorporate institutional-level resources, particularly in contexts characterized by high uncertainty and external shocks.

Finally, this study provides new insights into adaptive coping mechanisms and boundary conditions. Recent research highlights that personal resources such as job crafting and positive reappraisal can buffer the negative effects of job insecurity [8]. Similarly, flight attendants who positively reappraise job insecurity demonstrate higher performance under crisis conditions [10]. The present findings extend this perspective by showing that the effectiveness of resources depends on their alignment with the nature of demands. When resources are limited or narrowly focused (e.g., only safety measures), their buffering effect becomes constrained. This supports the JD-R proposition that resources are most effective when they match specific job demands [18]. The findings suggest that in crisis contexts, job resources may lose their buffering capacity when they are narrowly focused on safety rather than broader psychological or developmental support.

## *5.2. Managerial Implications*

The findings of this study offer several important managerial implications for airline organizations and policymakers, particularly in managing employees under high-risk and high-uncertainty conditions such as global pandemics. First, the results suggest that managing employees' risk perception should be a strategic priority rather than a purely informational task. Given that industry-level demands intensified uncertainty, organizations should develop coordinated communication strategies to reduce ambiguity and stabilize employee perceptions. Previous research indicates that heightened risk perception encourages protective behaviors such as compliance with safety protocols [9]. However, excessive or unmanaged risk perception may simultaneously increase psychological strain and job insecurity [8]. Second, the findings highlight that job insecurity is the most critical psychological mechanism linking crisis conditions to negative employee outcomes. Empirical evidence shows that perceived risk significantly increases job insecurity, which in turn drives turnover intention and negative work attitudes [8]. Third, the findings emphasize that job resources must be conceptualized beyond the organizational level. Prior research demonstrates that governmental-level interventions (e.g., safety regulations, testing systems) exert a stronger influence on employee job satisfaction than individual or organizational efforts [9]. Fourth, the results indicate that traditional HRM practices are insufficient in crisis contexts. Studies in hospitality show that employee well-being

during COVID-19 depends on flexible, adaptive HRM systems rather than standardized practices [19]. Fifth, the findings suggest that employees are not passive recipients of stress but active agents who can reshape their work experience. Prior studies show that job crafting reduces the negative impact of job insecurity and turnover intention [8]. Sixth, the findings reveal that both excessive workload and insufficient workload can be detrimental. Prior research indicates that occupational stressors increase under both unstable environments and demanding work conditions [26]. Finally, the findings confirm that employee well-being is not merely a welfare issue but a key determinant of organizational performance. Prior studies show that job satisfaction and commitment significantly influence performance, well-being, and prosocial behavior.

### *5.3. Limitations and Future Research*

This study has several limitations that should be acknowledged. First, the study relies on a qualitative design based on a relatively small sample of flight attendants. Although the data reached saturation and provided consistent patterns, the findings are derived from a limited number of participants and specific airline contexts. Future research may employ larger samples or mixed-method approaches to examine whether the identified patterns hold across broader populations and different aviation settings. Second, although this study identifies job demands and job resources across multiple levels, it does not test causal relationships between these factors and specific outcomes. The study is exploratory in nature and aims to reconstruct the JD-R framework in a crisis context rather than to validate a structural model. Future research may build on these findings by developing and testing quantitative models that examine the relationships between multi-level demands, resources, and employee outcomes. Finally, this study primarily focuses on work-related conditions and organizational factors. However, prior research suggests that non-work factors, such as family conditions and personal resources, may also influence employee experiences during crises. Future research could incorporate these factors to provide a more comprehensive understanding of how employees cope with complex and uncertain work environments.

### **Author Contributions**

A.N.: conceptualization, methodology, software, data curation, writing—original draft preparation; I.K.: conceptualization, investigation, supervision, validation, writing—reviewing and editing. Both authors have read and agreed to the published version of the manuscript.

### **Funding**

This research received no external funding.

### **Institutional Review Board Statement**

Not applicable.

### **Informed Consent Statement**

Not applicable.

### **Data Availability Statement**

The data presented in this study are available from the corresponding author upon reasonable request. The data are not publicly available due to privacy and confidentiality concerns.

### **Acknowledgments**

This study is partially based on data originally collected for the first author's master's thesis.

### **Conflicts of Interest**

The authors declare no conflict of interest.

### **Use of AI and AI-Assisted Technologies**

During the preparation of this work, the authors used ChatGPT to assist with language editing and improving readability. After using this tool, the authors reviewed and edited the content as needed and take full responsibility for the content of the published article.

## References

1. Zhang, M. Estimation of differential occupational risk of COVID-19 by comparing risk factors with case data by occupational group. *Am. J. Ind. Med.* **2021**, *64*, 39–47.
2. Chen, C.F.; Chen, S.C. Burnout and Work Engagement Among Cabin Crew: Antecedents and Consequences. *Int. J. Aviat. Psychol.* **2012**, *22*, 41–58.
3. Chen, C.F.; Chen, S.C. Investigating the effects of job demands and job resources on cabin crew safety behaviors. *Tour. Manag.* **2014**, *41*, 45–52.
4. Chang, J.; Chiu, J. Flight Attendants' Emotional Labor and Exhaustion in the Taiwanese Airline Industry. *J. Serv. Sci. Manag.* **2009**, *2*, 305–311.
5. Murphy, A. The flight attendant dilemma: An analysis of communication and sensemaking during in-flight emergencies. *J. Appl. Commun. Res.* **2001**, *29*, 30–53.
6. Ribeiro-Silva, F.; Rotenberg, L.; Fischer, F.M. Irregular Work Shifts and Family Issues-The Case of Flight Attendants. In *Social and Family Issues in Shift Work and Non Standard Working Hours*; Iskra-Golec, I., Barnes-Farrell, J., Bohle, P., Eds.; Springer: Cham, Switzerland, 2016.
7. Tsaur, S.; Hsu, F.; Kung, L. Hassles of cabin crew: An exploratory study. *J. Air Transp. Manag.* **2020**, *85*, 101812.
8. Chen, Q.; Li, Y.; Wang, R.; et al. How COVID-19 perceived risk causes turnover intention among flight attendants. *Psychol. Res. Behav. Manag.* **2023**, *16*, 95–108.
9. Lee, C.; Chung, E.; Kang, S.; et al. Impact of perception of COVID-19 on NPI, job satisfaction, and customer orientation: Highlighting three types of NPIs for the airline industry. *J. Air Transp. Manag.* **2022**, *100*, 102191.
10. Xiao, J.; Mao, J.Y.; Quan, J. Flight attendants staying positive! The critical role of career orientation amid the COVID-19 pandemic. *Int. J. Contemp. Hosp. Manag.* **2022**, *34*, 4312–4328.
11. Kim, K.Y.; Eisenberger, R.; Baik, K. Perceived organizational support and affective organizational commitment: Moderating influence of perceived organizational competence. *J. Organ. Behav.* **2016**, *37*, 558–583.
12. Arnold, K.A.; Dupré, K.E. Perceived organizational support, employee health and emotions. *Int. J. Workplace Health Manag.* **2012**, *5*, 139–152.
13. Liu, L.; Wen, F.; Xu, X.; et al. Effective resources for improving mental health among Chinese underground coal miners: Perceived organizational support and psychological capital. *J. Occup. Health* **2015**, *57*, 58–68.
14. Karatepe, O.M. Perceived organizational support, career satisfaction, and performance outcomes: A study of hotel employees in Cameroon. *Int. J. Contemp. Hosp. Manag.* **2012**, *24*, 735–752.
15. Khan, F.; Ali, U. Job satisfaction and perceived organizational support as a susceptibility factor of the intention to quit: A cross-cultural study. *Bahria J. Prof. Psychol.* **2015**, *14*, 105–122.
16. Ullah, I.; Elahi, N.S.; Abid, G.; et al. The impact of perceived organizational support and proactive personality on affective commitment: Mediating role of prosocial motivation. *Bus. Manag. Educ.* **2020**, *18*, 183–205.
17. Langfred, C.W.; Moye, N.A. Effects of task autonomy on performance: An extended model considering motivational, informational and structural mechanisms. *J. Appl. Psychol.* **2004**, *89*, 934–945.
18. Bakker, A.B.; Demerouti, E. The Job Demands-Resources model: State of the art. *J. Manag. Psychol.* **2007**, *22*, 309–328.
19. Agarwal, P. Shattered but smiling: Human resource management and the wellbeing of hotel employees during COVID-19. *Int. J. Hosp. Manag.* **2021**, *93*, 102765.
20. Demerouti, E.; Bakker, A.B. The job demands-resources model: Challenges for future research. *SA J. Ind. Psychol.* **2011**, *37*, a974.
21. Bakker, A.B. A job demands–resources approach to public service motivation. *Public Adm. Rev.* **2015**, *75*, 723–732.
22. Bakker, A.B.; Demerouti, E.; Verbeke, W. Using the Job Demands-Resources Model to Predict Burnout and Performance. *Hum. Resour. Manag.* **2004**, *43*, 83–104.
23. Demerouti, E.; Bakker, A.B.; Nachreiner, F.; et al. The job demands-resources model of burnout. *J. Appl. Psychol.* **2001**, *86*, 499–512.
24. Hackman, J.R.; Oldham, G.R. *Work Redesign*; Addison-Wesley: Boston, MA, USA, 1980.
25. Sobieralski, J.B. COVID-19 and airline employment: Insights from historical uncertainty shocks to the industry. *Transp. Res. Interdiscip. Perspect.* **2020**, *5*, 100123.
26. Wong, A.K.F.; Kim, S.; Kim, J.; et al. How the COVID-19 pandemic affected hotel Employee stress: Employee perceptions of occupational stressors and their consequences. *Int. J. Hosp. Manag.* **2021**, *93*, 102798.
27. Nam, A. Exploring Job Demands and Resources of Flight Attendants during COVID-19: An Application of the JD-R Model. Master's Thesis, Pusan National University, Busan, Republic of Korea, 2022.