

Chapter 3

Research Methodology

This research is a mixed method research. The details about the research method as follows:

- Research design
- Population and sample size
- Research instruments
- Data collection
- Data analysis

Research Design

By combing the existing literature, this paper finds that relevant studies generally believe that there is a mutual influence relationship between the job flexibility, job performance and job satisfaction of aviation safety officers, and this relationship will have a greater impact on the job performance of employees. In order to explore whether the same relationship exists among the aviation safety officers of China Southern Airlines, this study conducted a sampling survey on the aviation safety officers of all branches, subsidiaries and their subsidiaries of China Southern Airlines, and conducted in-depth interviews with the management personnel of the company. The design and result analysis of the questionnaire provide important data and data support for this paper, which makes the conclusion of this study more reliable and instructive.

At the same time, since the existing researches mainly analyze this kind of influence relationship from a qualitative perspective, there is a lack of corresponding quantitative research. Based on the data basis of questionnaire survey, this paper conducts a further quantitative analysis of this relationship and tries to give a specific influence coefficient.

In the process of investigation and research, the author strictly grasps the academic norms and standards, and strive to accurately express and express. In terms of text organization and expression, the author pays special attention to the examination and modification of language diseases and misspellings, and tries to be

concise and concise on the premise of ensuring the accuracy and fluency of the language.

Table 3.1 The Effect of Work flexibility on Job Satisfaction and Job Performance – A Case Study Design of Officers of Southern Airlines

Question	Content
What?	To study the impact of work flexibility on the job satisfaction and job performance of security officers of Southern Airlines.
Who?	Data collection was conducted through expert interviews with security officers of the Southern Airlines.
How?	Investigate the impact of work flexibility on job satisfaction and performance, particularly issues encountered with respect to labor, turnover, and productivity, and ways to address them.
When? How long? Where?	To study the specific situation and related issues of the work flexibility of safety officers in Southern Airlines in their daily work.
Why?	Due to the impact of the new crown epidemic, the work of safety officers of Southern Airlines is facing a series of challenges, and the importance of work flexibility to their job satisfaction and performance is studied.
How?	Analyze the status quo, problems and obstacles in the work of security personnel in Southern Airlines, and explore the direction of improvement in work flexibility.
How to do?	By formulating emergency management measures, effectively controlling the dispatch of labor force, paying attention to the ideological work of employees, establishing a standardized management system, and forming a technical team, etc., the problem of work flexibility can be solved.

Through the above research design, this study will deeply explore the impact of work flexibility on the job satisfaction and performance of the safety staff of China's four major airlines, and how to solve the problems of work flexibility, so as to provide effective management suggestions and improvements for airlines direction.

Population and Sample Size

In this paper, the employees of ten branches of China Southern Airlines were randomly sampled, from which 200 research samples were randomly selected for

questionnaire survey. The population and sample situation of this survey shown in Table 3.2

Table 3.2 Work satisfaction survey sample composition

Surveyed enterprises	Number of persons
Beijing Branch of China Southern Airlines	20
China Southern Airlines Shanghai Branch	20
Guangzhou Branch of China Southern Airlines	20
Shenzhen Branch of China Southern Airlines	20
Guizhou Branch of China Southern Airlines	20
China Southern Airlines Xinjiang Branch	20
Dalian Branch of China Southern Airlines	20
Hubei Branch of China Southern Airlines	20
China Southern Airlines North Branch	20
Henan Branch of China Southern Airlines	20

Questionnaire survey was commonly used statistical research methods. Its main role is to extract a part of the samples from a large number of investigated people, investigate and study these samples, thereby inferring the characteristics, trends and changes of the overall crowd. The focus of this article discusses the application of the entire group of sampling technologies in the investigation and research of the factors of the work satisfaction of aviation security officers.

First of all, because aviation security employees work at the same work place, a relatively stable working group has been formed, so the entire group of sampling methods is more suitable and easier to operate. Investigators can randomly choose several aviation safety work groups, and then in this group, and then randomly extract some investigators as samples, so that the overall situation of aviation security employees can be conducted more comprehensive.

Secondly, the entire group of sampling technology can also improve the reliability and repetitiveness of research. Because the characteristics of the entire work group are similar, the differences between samples are relatively small, so the representativeness and reliability of the samples are relatively high. During the research on large samples, the entire group of sampling technology can also make the research results more convincing and representative.

Finally, through the entire group of sampling technologies, investigations and research can understand the work of aviation security employees from multiple angles, explore the role of work flexibility for changes in work satisfaction and performance, and analyze the satisfaction of employees' requirements for work requirements. The degree provides a scientific basis for further improving the efficiency of aviation safety work and employee satisfaction.

Therefore, the application of the entire group of sampling technology in investigation and research is very important, especially in the research of large samples, which can improve the reliability and representativeness of the research results, making the research results more convincing and practical.

Research Instruments

1. Questionnaire design

A total of 36 related items were set up in the questionnaire, and the four directions around were work flexibility evaluation questionnaires, work satisfaction questionnaires and job performance questionnaires. In order to ensure the effectiveness of the questionnaire, the measurement of various variables in this article borrows from foreign maturity tables.

1) Dependent Variable

The job performance, which is the dependent variable of this research, the researcher has defined operational definitions and measurement or questionnaire items used in data collection, along with the references, as shown in Table 3.3.

Table 3.3 Operational definitions, measurements, and list of references of job performance

Variables	Operational definition	Measure (an item)	References
Task performance	Task performance is the effective execution of job responsibilities that contribute to organizational success.	<ol style="list-style-type: none"> 1. I consistently meet the quality standards set for my job tasks 2. I successfully complete my assigned tasks within the specified timeframes. 3. My job performance aligns with the organization's expectations for my role. 	Katz& Kahn (1978), Campbell et al. (1970), Borman & Motowidlo (1993), Van Scotter et al. (2000), Jabeen & Rahim (2021)

Table 3.3 Operational definitions, measurements, and list of references of job performance (cont.)

Variables	Operational definition	Measure (an item)	References
		4. I am able to effectively handle the tasks and responsibilities assigned to me.	
		5. The outcomes of my work positively contribute to the organization's objectives	
Relationship performance	Relationship performance is the effectiveness of interactions, teamwork, and communication among individuals in the organization, fostering a productive work environment.	<ol style="list-style-type: none"> 1. I am able to collaborate effectively with my colleagues to achieve common goals. 2. Communication within our team is open, respectful, and contributes to a positive atmosphere. 3. I feel supported by my colleagues when working on projects or tasks. 4. Conflict resolution within our team is managed constructively and leads to positive outcomes. 5. The relationships among team members contribute positively to our work environment. 	Allworth et al. (1993), Motowidlo (2003), Zhao et al. (2019)

2) Independent Variable

Work flexibility, which is the dependent variable of this research, the researcher has defined operational definitions and measurement or questionnaire items used in data collection, along with the references, as shown in Table 3.4.

Table 3.4 Operational definitions, measurements, and list of references of work flexibility

Variables	Operational definition	Measure (an item)	References
Working hours	Working hours refer to the specific periods when an employee is required to be present and engaged in job tasks or duties, including core work time and any additional commitments related to their role, within a designated timeframe.	<ol style="list-style-type: none"> 1. I have a lot of flexibility in deciding when work starts and ends 2. I have a lot of flexibility in deciding when to take time off 3. My job allows me to choose when I start and finish work 4. I have the freedom to take breaks or modify my work hours when necessary 5. I can easily modify my work hours to accommodate personal needs 	Kattenbach (2010), Kossek (2015), Matthews (2010), Su (2016), Davidescu, et al. (2020)
Place of Work	Place of work refers to the freedom employees have to choose where they work, whether within the office premises or remotely, based on their preferences and task requirements.	<ol style="list-style-type: none"> 1. I have the option to choose different workspaces (e.g., shared, private, remote) based on my needs 2. My job allows me to work remotely when necessary 3. The organization supports flexibility in where I work 4. I am able to choose a workspace that best suits my tasks and preferences 5. I am satisfied with the level of flexibility I have in selecting my workspace 	Gajendran & Harrison (2007), Jennifer et al. (2002), Davidescu et al. (2020)
Continuity of work	Continuity of work is the uninterrupted flow of tasks and responsibilities, ensuring smooth	<ol style="list-style-type: none"> 1. Tasks are consistently managed and handed over without disruptions 2. Changes in personnel do not significantly impact 	Kossek et al. (2015), Allen (2001), Breugh, et al. (1985), Davidescu, et al. (2020)

Table 3.4 Operational definitions, measurements, and list of references of work flexibility (cont.)

Variables	Operational definition	Measure (an item)	References
	transitions and work quality despite changes or disruptions.	the overall workflow and progress 3. There is a smooth transition of responsibilities during shifts or personnel changes 4. The organization effectively manages disruptions that could affect work continuity 5. Work quality remains consistent, even during transitions or unexpected events	

3) Mediator Variable

Job satisfaction, which is the dependent variable of this research, the researcher has defined operational definitions and measurement or questionnaire items used in data collection, along with the references, as shown in Table 3.5.

Table 3.5 Operational definitions, measurements, and list of references of job satisfaction

Variables	Operational definition	Measure (an item)	References
Intrinsic job satisfaction	Intrinsic job satisfaction is the sense of fulfillment and contentment individuals derive from the meaningfulness of their work tasks, skill utilization, autonomy, and contribution to a greater purpose.	1. I find personal satisfaction in the meaningfulness of my job tasks 2. My work allows me to utilize my skills and abilities effectively 3. I feel a sense of accomplishment from the tasks I perform 4. I value the autonomy and independence I have in my job	Brayfield & Rothe (1951), Hornung (2008), Hills, et al. (2012)

Table 3.5 Operational definitions, measurements, and list of references of job satisfaction (cont.)

Variables	Operational definition	Measure (an item)	References
		5. I believe my work contributes to a greater purpose or goal	
Extrinsic job satisfaction	Extrinsic job satisfaction is the contentment individuals feel from external factors like pay, benefits, and recognition associated with their job.	<ol style="list-style-type: none"> 1. I am satisfied with the compensation I receive for my job responsibilities. 2. I feel content with the benefits and perks provided by the organization. 3. Recognition for my efforts contribute to my overall job satisfaction. 4. Opportunities for career advancement positively influence my job satisfaction. 5. Promotions positively influence my job satisfaction. 6. The work environment and facilities enhance my overall job satisfaction 	Weiss, Dawis, England & Lofquist (1967) Hills, et al. (2012)

2. Interview Guidelines

Interview guidelines as shown in Table 3.6

Table 3.6 Interview guidelines

Research objectives	Questions
1. To study the job performance level of officers in China Southern Airlines.	<ol style="list-style-type: none"> 1. Can you describe your typical job responsibilities and tasks as an officer at China Southern Airlines? 2. How do you assess the quality of your work and your ability to meet the expectations of your role? 3. Can you provide examples of significant achievements or contributions you've made in your current position that you consider as indicators of your job performance?

Table 3.6 Interview guidelines (cont.)

Research objectives	Questions
2. To analyze the effect of work flexibility on job performance of officers in China Southern Airlines.	<ol style="list-style-type: none"> 1. How would you describe the level of flexibility you have in determining your work hours and location as an officer? 2. In your opinion, does the flexibility in work hours or location influence your ability to complete tasks effectively? Could you share specific instances where work flexibility positively or negatively impacted your job performance? 3. What factors do you think contribute to the relationship between work flexibility and your overall job performance?
3. To study the influence of job satisfaction as a mediating factor on the relationship between work flexibility and job performance of officers in China Southern Airlines.	<ol style="list-style-type: none"> 1. How satisfied are you with your current job role and the work environment at China Southern Airlines? 2. Do you believe that your level of job satisfaction plays a role in how effective you are in carrying out your job responsibilities? Can you provide examples? 3. From your perspective, do you think job satisfaction mediates the relationship between work flexibility and job performance? If yes, how do you perceive this mediation occurring in your experience?

3. Prediction Test

After completing the design of the questionnaire, preliminary inspection and ensuring the rationality and effectiveness of the questionnaire are necessary steps in order to correct the problem in time and modify before the questionnaire distribution. In this pre -issuing visit, a total of 40 initial draft questionnaires were distributed. Through the analysis of the survey results and communication with the survey object, we tested the reliability and effectiveness of the questionnaire. In addition, we used version 2.0 SPSS software to interpret the validity and reliability of the question volume.

In this questionnaire, we received 38 recovery, with high recovery rates. Through the communication and data analysis with the survey objects, we have determined whether the questionnaire can fully express the idea of the security officer. We carried out the academic language of the questionnaire and corrected the language disease and typo to ensure the accuracy and readability of the questionnaire.

In short, pre -visits are important steps in the questionnaire work, which can help us test the effectiveness and reliability of the questionnaire and correct the problem in time. When evaluating related question volume and reliability, using SPSS

software for data statistics can improve work efficiency and accuracy to ensure the accuracy and interpretability of data analysis results.

Data Collection

The quantitative data in this paper mainly comes from the questionnaire survey on the job flexibility, job satisfaction and job performance of aviation safety officers of China Southern Airlines. This process is divided into three steps: First, in the preliminary preparation stage, we designed and prepared the questionnaire, and arranged the interviewees and time. Secondly, in the implementation phase of the study, 200 questionnaires were issued to aviation security guards to further understand the work flexibility, satisfaction and performance of aviation security guards. Finally, in the stage of data collection and analysis, this paper firstly calculates the stability and reliability of the questionnaire to confirm the reliability and validity of the questionnaire. And then further collate and summarize the collected data information. Through this data collection process, this paper further carries out a quantitative analysis on the influence of job flexibility of aviation safety officers in China Southern Airlines on satisfaction and performance.

Data Analysis

Then analyze the structure of the sample to confirm whether the sample statistical characteristics of this survey are consistent with the actual situation of the airline safety officer of China Southern Airlines. For the results of the sample survey, this article uses a quantitative analysis method for research. Using Software to analyze the data collected by the data collected by the questionnaire survey, analysis of correlation, and regression analysis, etc., so as to verify the work flexibility of the southern aviation security officer of China and their job performance, respectively Influence.

In this study, path analysis is used as the statistical method of data analysis. Based on the covariance matrix of variables, the relationship between variables (work flexibility, work flexibility and job performance) is analyzed, and the mediating effect of job satisfaction on the relationship between work flexibility and job performance is tested.